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Universal Mobile Telecommunications System (UMTS); UTRAN Iur interface Radio Network Subsystem Application Part (RNSAP) signalling (3GPP TS 25.423 version 7.13.0 Release 7)

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Contents

Foreword

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1   Scope

The present document specifies the radio network layer signalling procedures of the control plane between RNCs in UTRAN, between RNC in UTRAN and BSS in GERAN Iu mode and between BSSs in GERAN Iu mode.

2   References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1]   3GPP TS 23.003: "Numbering, addressing and identification".

[2]   3GPP TS 25.413: "UTRAN Iu Interface RANAP Signalling".

[3]   3GPP TS 25.426: "UTRAN Iur and Iub Interface Data Transport & Transport Layer Signalling for DCH Data Streams".

[4]   3GPP TS 25.427: "UTRAN Iur and Iub Interface User Plane Protocols for DCH Data Streams".

[5]   3GPP TS 25.435: "UTRAN Iub interface User Plane Protocols for Common Transport Channel Data Streams".

[6]   3GPP TS 25.104: "UTRA (BS) FDD; Radio transmission and Reception".

[7]   3GPP TS 25.105: "UTRA (BS) TDD; Radio Transmission and Reception".

[8]   3GPP TS 25.211: "Physical Channels and Mapping of Transport Channels onto Physical Channels (FDD)".

[9]   3GPP TS 25.212: "Multiplexing and Channel Coding (FDD)".

[10]   3GPP TS 25.214: "Physical Layer Procedures (FDD)".

[11]   3GPP TS 25.215: "Physical Layer – Measurements (FDD)".

[12]   3GPP TS 25.221: "Physical Channels and Mapping of Transport Channels onto Physical Channels (TDD)".

[13]   3GPP TS 25.223: "Spreading and Modulation (TDD)".

[14]   3GPP TS 25.225: "Physical Layer – Measurements (TDD)".

[15]   3GPP TS 25.304: "UE Procedures in Idle Mode"

[16]   3GPP TS 25.331: "RRC Protocol Specification".

[17]   3GPP TS 25.402: "Synchronisation in UTRAN, Stage 2".

[18]   ITU-T Recommendation X.680 (07/2002): "Information technology - Abstract Syntax Notation One (ASN.1): Specification of basic notation".

[19]   ITU-T Recommendation X.681 (07/2002): "Information technology - Abstract Syntax Notation One (ASN.1): Information object specification".

[20] ITU-T Recommendation X.691 (07/2002): "Information technology - ASN.1 encoding rules - Specification of Packed Encoding Rules (PER)".

[21] 3GPP TS 25.213: "Spreading and modulation (FDD)".

[22] 3GPP TS 25.224: "Physical Layer Procedures (TDD)".

[23] 3GPP TS 25.133: "Requirements for support of Radio Resource management (FDD)".

[24] 3GPP TS 25.123: "Requirements for support of Radio Resource management (TDD)".

[25] 3GPP TS 23.032: "Universal Graphical Area Description (GAD)".

[26] 3GPP TS 25.302: "Services Provided by the Physical Layer".

[27] 3GPP TS 25.213: "Spreading and modulation (FDD)".

[28] 3GPP TR 25.921: "Guidelines and Principles for Protocol Description and Error Handling".

[29] GSM TS 05.05: "Digital cellular telecommunications system (Phase 2+); Radio transmission and reception".

[30] ICD-GPS-200: "Navstar GPS Space Segment/Navigation User Interface".

[31] RTCM-SC104: "RTCM Recommended Standards for Differential GNSS Service (v.2.2)".

[32] 3GPP TS 25.425: "UTRAN Iur and Iub Interface User Plane Protocols for Common Transport Channel data streams ".

[33] IETF RFC 2460 "Internet Protocol, Version 6 (IPv6) Specification".

[34] IETF RFC 768 "User Datagram Protocol", (8/1980)

[35] 3GPP TS 25.424: " UTRAN Iur Interface Data Transport & Transport Signalling for Common Transport Channel Data Streams ".

[36] 3GPP TS 44.118: "Mobile radio interface layer 3 specification; Radio Resource Control (RRC) Protocol Iu mode".

[37] 3GPP TR 43.930: "Iur-g interface; Stage 2".

[38] 3GPP TS 48.008: "Mobile-services Switching Centre - Base Station System (MSC - BSS) interface; Layer 3 specification".

[39] 3GPP TS 43.051: "GSM/EGDE Radio Access Network; Overall description - Stage 2".

[40] 3GPP TS 25.401: "UTRAN Overall Description".

[41] 3GPP TS 25.321: "MAC protocol specification".

[42] 3GPP TS 25.306: "UE Radio Access capabilities".

[43] 3GPP TS 25.101: "User Equipment (UE) radio transmission and reception (FDD)".

[44] IETF RFC 2474 "Definition of the Differentiated Services Field (DS Field) in the IPv4 and IPv6 Headers".

[45] IETF RFC 2475 "An Architecture for Differentiated Services".

[46] 3GPP TS 25.222: "Multiplexing and Channel Coding (TDD)".

[47] 3GPP TS 44.060: "General Packet Radio Service (GPRS); Mobile Station (MS) - Base Station System (BSS) interface; Radio Link Control/Medium Access Control (RLC/MAC) protocol".

[48] 3GPP TS 32.421: "Subscriber and equipment trace: Trace concepts and requirements".

[49] 3GPP TS 32.422: "Subscriber and equipment trace: Trace control and Configuration Management".

[50]   3GPP TS 25.346: "Introduction of the Multimedia Broadcast Multicast Service (MBMS) in the Radio Access Network (Stage-2) ".

[51]   3GPP TS 23.246: "Multimedia Broadcast Multicast Service; Architecture and Functional Description".

[52]   3GPP TS 25.319: "Enhanced Uplink; Overall description; Stage 2".

[53]   Galileo OS Signal in Space ICD (OS SIS ICD), Draft 0, Galileo Joint Undertaking, May 23rd, 2006.

[54]   3GPP TS 23.251: "Network Sharing: Architecture and functional description".

3   Definitions, Symbols and Abbreviations

3.1   Definitions

For the purposes of the present document, the following terms and definitions apply:

Elementary Procedure: RNSAP protocol consists of Elementary Procedures (EPs). An Elementary Procedure is a unit of interaction between two RNCs. An EP consists of an initiating message and possibly a response message. Two kinds of EPs are used:

-   **Class 1:** Elementary Procedures with response (success or failure);

-   **Class 2:** Elementary Procedures without response.

For Class 1 EPs, the types of responses can be as follows:

Successful

-   A signalling message explicitly indicates that the elementary procedure has been successfully completed with the receipt of the response.

Unsuccessful

-   A signalling message explicitly indicates that the EP failed.

Class 2 EPs are considered always successful.

Prepared Reconfiguration: A Prepared Reconfiguration exists when the Synchronised Radio Link Reconfiguration Preparation procedure has been completed successfully. The Prepared Reconfiguration does not exist anymore only after either of the procedures Synchronised Radio Link Reconfiguration Commit or Synchronised Radio Link Reconfiguration Cancellation has been completed. In particular, the Prepared Reconfiguration still exists if the object (e.g. Radio Link) concerned by the Synchronised Radio Link Reconfiguration (e.g. in the case of an HS-DSCH Setup) is removed, but the UE Context still exists.

UE Context: The UE Context contains the necessary information for the DRNC/DBSS to communicate with a specific UE. The UE Context is created by the Radio Link Setup procedure or by the Uplink Signalling Transfer procedure when the UE makes its first access in a cell controlled by the DRNS/DBSS. The UE Context is deleted by the Radio Link Deletion procedure, by the Common Transport Channel Resources Release procedure, or by the Downlink Signalling Transfer procedure when neither any Radio Links nor any common transport channels are established towards the concerned UE. The UE Context is identified by the SCCP Connection for messages using connection oriented mode of the signalling bearer and the D-RNTI for messages using connectionless mode of the signalling bearer, unless specified otherwise in the procedure text.

Distant RNC Context: The Distant RNC context is created by the first Common Measurement Initiation Procedure or Information Exchange Initiation Procedure initiated by one RNC/BSS and requested from another RNC/BSS. The Distant RNC Context is deleted after the Common Measurement Termination, the Common Measurement Failure, the Information Exchange Termination or the Information Exchange Failure procedure when there is no more Common Measurement and no more Information to be provided by the requested RNC/BSS to the requesting RNC/BSS. The

Distant RNC Context is identified by an SCCP connection as, for common measurements and information exchange, only the connection oriented mode of the signalling bearer is used.

Signalling radio bearer 2: The signalling radio bearer 2 is used by the UE to access a GERAN cell in order to perform RRC procedures [36].

UE Link: see definition in [50].

URA Link: see definition in [50].

MBMS Bearer Service: see defintion in [51].

MBMS session: see defintion in [50].

MBMS session start: see defintion in [50].

MBMS session stop: see defintion in [50].

MBMS Selected Services: see defintion in [50].

3.2 Symbols

Void.

3.3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

A-GPS	Assisted-GPS
ALCAP	Access Link Control Application Part
APN	Access Point Name
ASN.1	Abstract Syntax Notation One
BER	Bit Error Rate
BLER	Block Error Rate
BSS	Base Station Subsystem
CBSS	Controlling BSS
CCCH	Common Control Channel
CCPCH	Common Control Physical Channel
CCTrCH	Coded Composite Transport Channel
CFN	Connection Frame Number
C-ID	Cell Identifier
CM	Compressed Mode
CN	Core Network
CPICH	Common Pilot Channel
CRNC	Controlling RNC
DBSS	Drift BSS
C-RNTI	Cell Radio Network Temporary Identifier
CS	Circuit Switched
CTFC	Calculated Transport Format Combination DCH Dedicated Channel
DGPS	Differential GPS
DL	Downlink
DPC	Downlink Power Control
DPCCH	Dedicated Physical Control Channel
DPCH	Dedicated Physical Channel
DPDCH	Dedicated Physical Data Channel
DRNC	Drift RNC
DRNS	Drift RNS
D-RNTI	Drift Radio Network Temporary Identifier
DRX	Discontinuous Reception
DSCH	Downlink Shared Channel
Ec	Energy in single Code
E-AGCH	E-DCH Absolute Grant Channel

E-DCH	Enhanced UL DCH
E-HICH	E-DCH HARQ Acknowledgement Indicator Channel
E-PUCH	Enhanced Uplink Physical Channel (TDD only)
E-RNTI	E-DCH RNTI
E-RUCCH	E-DCH Random Access Uplink Control Channel (TDD only)
E-TFCI	E-DCH Transport Format Combination Indicator
E-UCCH	E-DCH Uplink Control Channel (TDD only)
EDSCHPC	Enhanced Downlink Shared Channel Power Control
EP	Elementary Procedure
FACH	Forward Access Channel
FDD	Frequency Division Duplex
F-DPCH	Fractional DPCH
FN	Frame Number
FP	Frame Protocol
GANSS	Galileo and Additional Navigation Satellite Systems
GERAN	GSM EDGE Radio Access Network
GA	Geographical Area
GAI	Geographical Area Identifier
GNSS	Global Navigation Satellite System
GPS	Global Positioning System
GRA	GERAN Registration Area
GSM	Global System Mobile
GWCN	Gateway Core Network
HSDPA	High Speed Downlink Packet Access
HW	Hardware
IB	Information Block
ID	Identity or Identifier
IE	Information Element
IMSI	International Mobile Subscriber Identity
IP	Internet Protocol
IPDL	Idle Period DownLink
ISCP	Interference Signal Code Power
LAC	Location Area Code
LCR	Low Chip Rate (1.28 Mcps)
LCS	Location Services
MAC	Medium Access Control
MBMS	Multimedia Broadcast Multicast Service
MOCN	Multi-Operator Core Network
MS	Mobile Station
NACC	Network Assissted Cell Change
NAS	Non Access Stratum
No	Reference Noise
NRT	Non Real Time
O&M	Operation and Maintenance
P(-)CCPCH	Primary CCPCH
PCH	Paging Channel
OTD	Observed Time Difference
P(-)CPICH	Primary CPICH
PCS	Personal Communication Services
PDSCH	Physical Downlink Shared Channel
PDU	Protocol Data Unit
PhCH	Physical Channel
PICH	Paging Indication Channel
PLCCH	Physical Layer Common Control Channel
Pos	Position or Positioning
PRACH	Physical Random Access Channel
PTP	Point To Point
PTM	Point To Multipoint
PS	Packet Switched
QE	Quality Estimate
RAC	Routing Area Code
RACH	Random Access Channel

RAN	Radio Access Network
RANAP	Radio Access Network Application Part
RB	Radio Bearer
RL	Radio Link
RLC	Radio Link Control
RLS	Radio Link Set
RM	Rate Matching
RNC	Radio Network Controller
RNS	Radio Network Subsystem
RNSAP	Radio Network Subsystem Application Part
RNTI	Radio Network Temporary Identifier
RRC	Radio Resource Control
RT	Real Time
RSCP	Received Signal Code Power
SBSS	Serving BSS
Rx	Receive or Reception
Sat	Satellite
SCCP	Signalling Connection Control Part
S(-)CCPCH	Secondary CCPCH
SCH	Synchronisation Channel
SCTD	Space Code Transmit Diversity
SDU	Service Data Unit
SF	System Frame
SFN	System Frame Number
SHCCH	Shared Control Channel
SIR	Signal-to-Interference Ratio
SNA	Shared Network Area
SRB2	Signalling radio bearer 2
SRNC	Serving RNC
SRNS	Serving RNS
S-RNTI	Serving Radio Network Temporary Identifier
STTD	Space Time Transmit Diversity
TDD	Time Division Duplex
TF	Transport Format
TFCI	Transport Format Combination Indicator
TFCS	Transport Format Combination Set
TFS	Transport Format Set
TGCFN	Transmission Gap Connection Frame Number
TMGI	Temporary Mobile Group Identity
ToAWE	Time of Arrival Window Endpoint
ToAWS	Time of Arrival Window Startpoint
TPC	Transmit Power Control
TrCH	Transport Channel
TS	Time Slot
TSG	Technical Specification Group
TSTD	Time Switched Transmit Diversity
TTI	Transmission Time Interval
TX	Transmit or Transmission
UARFCN	UTRA Absolute Radio Frequency Channel Number
UDP	User Datagram Protocol
UC-ID	UTRAN Cell Identifier
UE	User Equipment
UL	Uplink
UMTS	Universal Mobile Telecommunications System
URA	UTRAN Registration Area
U-RNTI	UTRAN Radio Network Temporary Identifier
USCH	Uplink Shared Channel
UTRA	Universal Terrestrial Radio Access
UTRAN	Universal Terrestrial Radio Access Network

4 General

4.1 Procedure Specification Principles

The principle for specifying the procedure logic is to specify the functional behaviour of the DRNC/CRNC exactly and completely. The SRNC functional behaviour is left unspecified. The Physical Channel Reconfiguration procedure, [TDD – the UE Measurement Inititation, the UE Measurement Reporting, UE Measurement Termination, UE Measurement Failure,] and the Reset procedure are an exception from this principle.

The following specification principles have been applied for the procedure text in subclause 8:

- The procedure text discriminates between:

    1) Functionality which "shall" be executed

       The procedure text indicates that the receiving node "shall" perform a certain function Y under a certain condition. If the receiving node supports procedure X but cannot perform functionality Y requested in the REQUEST message of a Class 1 EP, the receiving node shall respond with the message used to report unsuccessful outcome for this procedure, containing an appropriate cause value.

    2) Functionality which "shall, if supported" be executed

       The procedure text indicates that the receiving node "shall, if supported," perform a certain function Y under a certain condition. If the receiving node supports procedure X, but does not support functionality Y, the receiving node shall proceed with the execution of the EP, possibly informing the requesting node about the not supported functionality.

- Any required inclusion of an optional IE in a response message is explicitly indicated in the procedure text. If the procedure text does not explicitly indicate that an optional IE shall be included in a response message, the optional IE shall not be included. For requirements for including *Criticality Diagnostics* IE, see section 10. For examples on how to use the *Criticality Diagnostics* IE, see Annex C.

4.2 Forwards and Backwards Compatibility

The forwards and backwards compatibility of the protocol is assured by a mechanism in which all current and future messages, and IEs or groups of related IEs, include ID and criticality fields that are coded in a standard format that will not be changed in the future. These parts can always be decoded regardless of the standard version.

4.3 Source Signalling Address Handling

The sender of an RNSAP messages shall include the Source Signalling Address, i.e. the Signalling Address of the sending node.

4.4 Specification Notations

For the purposes of the present document, the following notations apply:

[FDD]	This tagging of a word indicates that the word preceding the tag "[FDD]" applies only to FDD. This tagging of a heading indicates that the heading preceding the tag "[FDD]" and the section following the heading applies only to FDD.
[TDD]	This tagging of a word indicates that the word preceding the tag "[TDD]" applies only to TDD, including 3.84Mcps TDD, 7.68Mcps TDD and 1.28Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[TDD]" and the section following the heading applies only to TDD, including 3.84Mcps TDD, 7.68Mcps TDD and 1.28Mcps TDD.

[3.84Mcps TDD]	This tagging of a word indicates that the word preceding the tag "[3.84Mcps TDD]" applies only to 3.84Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[3.84Mcps TDD]" and the section following the heading applies only to 3.84Mcps TDD.
[1.28Mcps TDD]	This tagging of a word indicates that the word preceding the tag "[1.28Mcps TDD]" applies only to 1.28Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[1.28Mcps TDD]" and the section following the heading applies only to 1.28Mcps TDD.
[7.68Mcps TDD]	This tagging of a word indicates that the word preceding the tag "[7.68Mcps TDD]" applies only to 7.68Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[7.68Mcps TDD]" and the section following the heading applies only to 7.68Mcps TDD.
[FDD - …]	This tagging indicates that the enclosed text following the "[FDD - " applies only to FDD. Multiple sequential paragraphs applying only to FDD are enclosed separately to enable insertion of TDD specific (or common) paragraphs between the FDD specific paragraphs.
[TDD - …]	This tagging indicates that the enclosed text following the "[TDD - " applies only to TDD including 3.84Mcps TDD, 7.68Mcps TDD and 1.28Mcps TDD. Multiple sequential paragraphs applying only to TDD are enclosed separately to enable insertion of FDD specific (or common) paragraphs between the TDD specific paragraphs.
[3.84Mcps TDD - …]	This tagging indicates that the enclosed text following the "[3.84Mcps TDD - " applies only to 3.84Mcps TDD. Multiple sequential paragraphs applying only to 3.84Mcps TDD are enclosed separately to enable insertion of FDD and TDD specific (or common) paragraphs between the 3.84Mcps TDD specific paragraphs.
[1.28Mcps TDD - …]	This tagging indicates that the enclosed text following the "[1.28Mcps TDD - " applies only to 1.28Mcps TDD. Multiple sequential paragraphs applying only to 1.28Mcps TDD are enclosed separately to enable insertion of FDD and TDD specific (or common) paragraphs between the 1.28Mcps TDD specific paragraphs.
[7.68Mcps TDD - …]	This tagging indicates that the enclosed text following the "[7.68Mcps TDD - " applies only to 7.68Mcps TDD. Multiple sequential paragraphs applying only to 7.68Mcps TDD are enclosed separately to enable insertion of FDD and TDD specific (or common) paragraphs between the 7.68Mcps TDD specific paragraphs.
Procedure	When referring to an elementary procedure in the specification, the Procedure Name is written with the first letters in each word in upper case characters followed by the word "procedure", e.g. Radio Link Setup procedure.
Message	When referring to a message in the specification, the MESSAGE NAME is written with all letters in upper case characters followed by the word "message", e.g. RADIO LINK SETUP REQUEST message.
IE	When referring to an information element (IE) in the specification, the *Information Element Name* is written with the first letters in each word in upper case characters and all letters in Italic font followed by the abbreviation "IE", e.g. *Transport Format Set* IE.
Value of an IE	When referring to the value of an information element (IE) in the specification, the "Value" is written as it is specified in subclause 9.2 enclosed by quotation marks, e.g. "Abstract Syntax Error (Reject)".

5 RNSAP Services

5.1 RNSAP Procedure Modules

The Iur interface RNSAP procedures are divided into four modules as follows:

1. RNSAP Basic Mobility Procedures;

2. RNSAP Dedicated Procedures;

3. RNSAP Common Transport Channel Procedures;

4. RNSAP Global Procedures;

5. RNSAP MBMS Procedures.

The Basic Mobility Procedures module contains procedures used to handle the mobility within UTRAN, within GERAN and between UTRAN and GERAN.

The Dedicated Procedures module contains procedures that are used to handle DCHs, [FDD – F-DPCH,] [TDD – DSCHs, USCHs], HS-DSCH and E-DCH between two RNSs. If procedures from this module are not used in a specific Iur, then the usage of DCH, [FDD – F-DPCH,] [TDD – DSCH, USCH,] HS-DSCH and E-DCH traffic between corresponding RNSs is not possible.

The Common Transport Channel Procedures module contains procedures that are used to control common transport channel data streams (excluding the DSCH, HS-DSCH and USCH) over Iur interface.

The Global Procedures module contains procedures that are not related to a specific UE. The procedures in this module are in contrast to the above modules involving two peer CRNCs/CBSSs.

The MBMS Procedures module contains procedures that are specific to MBMS and used for cases that cannot be handled by other modules.

5.2   Parallel Transactions

Unless explicitly indicated in the procedure specification, at any instance in time one protocol peer shall have a maximum of one ongoing RNSAP Dedicated procedure related to a certain UE.

6   Services Expected from Signalling Transport

The signalling transport shall provide two different service modes for the RNSAP.

1. Connection oriented data transfer service. This service is supported by a signalling connection between two RNCs. It shall be possible to dynamically establish and release signalling connections based on the need. Each active UE shall have its own signalling connection. The signalling connection shall provide in sequence delivery of RNSAP messages. RNSAP shall be notified if the signalling connection breaks.

2. Connectionless data transfer service. RNSAP shall be notified in case a RNSAP message did not reach the intended peer RNSAP entity.

7   Functions of RNSAP

The RNSAP protocol provides the following functions:

- Radio Link Management. This function allows the SRNC to manage radio links using dedicated resources in a DRNS;

- Physical Channel Reconfiguration. This function allows the DRNC to reallocate the physical channel resources for a Radio Link;

- Radio Link Supervision. This function allows the DRNC to report failures and restorations of a Radio Link;

- Compressed Mode Control [FDD]. This function allows the SRNC to control the usage of compressed mode within a DRNS;

- Measurements on Dedicated Resources. This function allows the SRNC to initiate measurements on dedicated resources in the DRNS. The function also allows the DRNC to report the result of the measurements;

- DL Power Drifting Correction [FDD]. This function allows the SRNC to adjust the DL power level of one or more Radio Links in order to avoid DL power drifting between the Radio Links;

- DCH Rate Control. This function allows the DRNC to limit the rate of each DCH configured for the Radio Link(s) of a UE in order to avoid congestion situations in a cell;

- CCCH Signalling Transfer. This function allows the SRNC and DRNC to pass information between the UE and the SRNC on a CCCH controlled by the DRNS;

- GERAN Signalling Transfer. This function allows the SBSS and DBSS, the SRNC and DBSS or the SBSS and DRNC to pass information between the UE/MS and the SRNC/SBSS on an SRB2/CCCH controlled by the DBSS/DRNC;

- Paging. This function allows the SRNC/SBSS to page a UE in a URA/GRA or a cell in the DRNS;

- Common Transport Channel Resources Management. This function allows the SRNC to utilise Common Transport Channel Resources within the DRNS;

- Relocation Execution. This function allows the SRNC/SBSS to finalise a Relocation previously prepared via other interfaces;

- Reporting of General Error Situations. This function allows reporting of general error situations, for which function specific error messages have not been defined.

- DL Power Timeslot Correction [TDD]. This function enables the DRNS to apply an individual offset to the transmission power in each timeslot according to the downlink interference level at the UE.

- Measurements on Common Resources. This function allows an RNC/BSS to request from another RNC/BSS to initiate measurements on Common Resources. The function also allows the requested RNC/BSS to report the result of the measurements.

- Information Exchange. This function allows an RNC to request from another RNC the transfer of information. The function also allows the requested RNC to report the requested information.

- Resetting the Iur. This function is used to completely or partly reset the Iur interface.

- UE Measurement Forwarding[TDD]. This function allows the DRNC to request and receive UE measurements from the SRNC.

- Tracing. This function allows the SRNC to activate or deactivate trace in a DRNC.

- MBMS UE Linking/De-linking. This function allows the SRNC to provide/update/remove the UE Link to/in/from the DRNC.

- MBMS URA Linking/De-linking. This function allows the SRNC to provide/update/remove the URA Link to/in/from the DRNC.

- MBMS Channel Type Indication. This function allows the DRNC to indicate to the SRNC the selected channel type for an MBMS bearer service within certain cells in the DRNS.

- MBMS Preferred Frequency Layer Indication. This function allows the DRNC to indicate to the SRNC the preferred frequency layer for an MBMS bearer service within certain cells in the DRNS.

- Direct Information Transfer. This function allows an RNC to transfer information to another RNC.

The mapping between the above functions and RNSAP elementary procedures is shown in the Table 1.

Table 1: Mapping between functions and RNSAP elementary procedures

Function	Elementary Procedure(s)
Radio Link Management	a) Radio Link Setup b) Radio Link Addition c) Radio Link Deletion d) Unsynchronised Radio Link Reconfiguration e) Synchronised Radio Link Reconfiguration

Function	Elementary Procedure(s)
	Preparation f) Synchronised Radio Link Reconfiguration Commit g) Synchronised Radio Link Reconfiguration Cancellation h) Radio Link Pre-emptioni) Radio Link Activation j) Radio Link Parameter Update
Physical Channel Reconfiguration	Physical Channel Reconfiguration
Radio Link Supervision	a) Radio Link Failure b) Radio Link Restoration
Compressed Mode Control [FDD]	a) Radio Link Setup b) Radio Link Addition c) Compressed Mode Command d) Unsynchronised Radio Link Reconfiguration e) Synchronised Radio Link Reconfiguration Preparation f) Synchronised Radio Link Reconfiguration Commit g) Synchronised Radio Link Reconfiguration Cancellation
Measurements on Dedicated Resources	a) Dedicated Measurement Initiation b) Dedicated Measurement Reporting c) Dedicated Measurement Termination d) Dedicated Measurement Failure
DL Power Drifting Correction [FDD]	Downlink Power Control
DCH Rate Control	a) Radio Link Setup b) Radio Link Addition c) Unsynchronised Radio Link Reconfiguration d) Synchronised Radio Link Reconfiguration Preparation e) Radio Link Congestion
CCCH Signalling Transfer	a) Uplink Signalling Transfer b) Downlink Signalling Transfer
GERAN Signalling Transfer	a) GERAN Uplink Signalling Transfer b) Downlink Signalling Transfer
Paging	Paging
Common Transport Channel Resources Management	a) Common Transport Channel Resources Initiation b) Common Transport Channel Resources Release
Relocation Execution	Relocation Commit
Reporting of General Error Situations	Error Indication
Measurements on Common Resources	a) Common Measurement Initiation b) Common Measurement Reporting c) Common Measurement Termination

Function	Elementary Procedure(s)
	d) Common Measurement Failure
Information Exchange	a) Information Exchange Initiation
	b) Information Reporting
	c) Information Exchange Termination
	d) Information Exchange Failure
DL Power Timeslot Correction [TDD]	Downlink Power Timeslot Control
Reset	Reset
UE Measurement Forwarding[TDD]	a) UE Measurement Initiation b) UE Measurement Reporting c) UE Measurement Termination d) UE Measurement Failure
Trace	a) Iur Invoke Trace
	b) Iur Deactivate Trace
MBMS UE Linking/De-linking	a) Common Transport Channel Resources Initiation b) Radio Link Setup c) Downlink Signalling Transfer d) MBMS Attach e) MBMS Detach
MBMS Channel Type Indication	a) Direct Information Transfer b) Uplink Signalling Transfer
	c) Radio Link Setup
	d) Radio Link Addition
	e) Common Transport Channel Resources Initiation
MBMS Preferred Frequency Layer Indication	a) Direct Information Transfer b) Radio Link Setup
	d) Radio Link Addition
MBMS URA Linking/De-linking	a) Downlink Signalling Transfer b) MBMS Attach c) MBMS Detach
Direct Information Transfer	a) Direct Information Transfer

7.1 RNSAP functions and elementary procedures for Iur-g.

The functions and RNSAP elementary procedures, which are applicable on the Iur-g interface are shown in the Table 1A.

Table 1A: RNSAP elementary procedures applicable on the Iur-g interface

Function	Elementary Procedure(s)
GERAN Signalling Transfer	a) GERAN Uplink Signalling Transfer b) Downlink Signalling Transfer

Function	Elementary Procedure(s)
Paging	Paging
Relocation Execution	Relocation Commit
Reporting of General Error Situations	Error Indication
Measurements on Common Resources	a) Common Measurement Initiation b) Common Measurement Reporting c) Common Measurement Termination d) Common Measurement Failure
Information Exchange	a) Information Exchange Initiation b) Information Reporting c) Information Exchange Termination d) Information Exchange Failure

NOTE: In the connection with the functions related to the GERAN and UTRAN, the term RNC shall refer to RNC/BSS.

8 RNSAP Procedures

8.1 Elementary Procedures

In the following tables, all EPs are divided into Class 1 and Class 2 EPs.

Table 2: Class 1 Elementary Procedures

Elementary Procedure	Initiating Message	Successful Outcome Response message	Unsuccessful Outcome Response message
Radio Link Setup	RADIO LINK SETUP REQUEST	RADIO LINK SETUP RESPONSE	RADIO LINK SETUP FAILURE
Radio Link Addition	RADIO LINK ADDITION REQUEST	RADIO LINK ADDITION RESPONSE	RADIO LINK ADDITION FAILURE
Radio Link Deletion	RADIO LINK DELETION REQUEST	RADIO LINK DELETION RESPONSE	
Synchronised Radio Link Reconfiguration Preparation	RADIO LINK RECONFIGURATION PREPARE	RADIO LINK RECONFIGURATION READY	RADIO LINK RECONFIGURATION FAILURE
Unsynchronised Radio Link Reconfiguration	RADIO LINK RECONFIGURATION REQUEST	RADIO LINK RECONFIGURATION RESPONSE	RADIO LINK RECONFIGURATION FAILURE
Physical Channel Reconfiguration	PHYSICAL CHANNEL RECONFIGURATION REQUEST	PHYSICAL CHANNEL RECONFIGURATION COMMAND	PHYSICAL CHANNEL RECONFIGURATION FAILURE

Elementary Procedure	Initiating Message	Successful Outcome	Unsuccessful Outcome
		Response message	Response message
Dedicated Measurement Initiation	DEDICATED MEASUREMENT INITIATION REQUEST	DEDICATED MEASUREMENT INITIATION RESPONSE	DEDICATED MEASUREMENT INITIATION FAILURE
Common Transport Channel Resources Initialisation	COMMON TRANSPORT CHANNEL RESOURCES REQUEST	COMMON TRANSPORT CHANNEL RESOURCES RESPONSE	COMMON TRANSPORT CHANNEL RESOURCES FAILURE
Common Measurement Initiation	COMMON MEASUREMENT INITIATION REQUEST	COMMON MEASUREMENT INITIATION RESPONSE	COMMON MEASUREMENT INITIATION FAILURE
Information Exchange Initiation	INFORMATION EXCHANGE INITIATION REQUEST	INFORMATION EXCHANGE INITIATION RESPONSE	INFORMATION EXCHANGE INITIATION FAILURE
Reset	RESET REQUEST	RESET RESPONSE	
UE Measurement Initiation[TDD]	UE MEASUREMENT INITIATION REQUEST	UE MEASUREMENT INITIATION RESPONSE	UE MEASUREMENT INITIATION FAILURE

Table 3: Class 2 Elementary Procedures

Elementary Procedure	Initiating Message
Uplink Signalling Transfer	UPLINK SIGNALLING TRANSFER INDICATION
GERAN Uplink Signalling Transfer	GERAN UPLINK SIGNALLING TRANSFER INDICATION
Downlink Signalling Transfer	DOWNLINK SIGNALLING TRANSFER REQUEST
Relocation Commit	RELOCATION COMMIT
Paging	PAGING REQUEST
Synchronised Radio Link Reconfiguration Commit	RADIO LINK RECONFIGURATION COMMIT
Synchronised Radio Link Reconfiguration Cancellation	RADIO LINK RECONFIGURATION CANCEL
Radio Link Failure	RADIO LINK FAILURE INDICATION
Radio Link Restoration	RADIO LINK RESTORE INDICATION
Dedicated Measurement Reporting	DEDICATED MEASUREMENT REPORT
Dedicated Measurement Termination	DEDICATED MEASUREMENT TERMINATION REQUEST

Elementary Procedure	Initiating Message
Dedicated Measurement Failure	DEDICATED MEASUREMENT FAILURE INDICATION
Downlink Power Control [FDD]	DL POWER CONTROL REQUEST
Compressed Mode Command [FDD]	COMPRESSED MODE COMMAND
Common Transport Channel Resources Release	COMMON TRANSPORT CHANNEL RESOURCES RELEASE REQUEST
Error Indication	ERROR INDICATION
Downlink Power Timeslot Control [TDD]	DL POWER TIMESLOT CONTROL REQUEST
Radio Link Pre-emption	RADIO LINK PREEMPTION REQUIRED INDICATION
Radio Link Congestion	RADIO LINK CONGESTION INDICATION
Common Measurement Reporting	COMMON MEASUREMENT REPORT
Common Measurement Termination	COMMON MEASUREMENT TERMINATION REQUEST
Common Measurement Failure	COMMON MEASUREMENT FAILURE INDICATION
Information Reporting	INFORMATION REPORT
Information Exchange Termination	INFORMATION EXCHANGE TERMINATION REQUEST
Information Exchange Failure	INFORMATION EXCHANGE FAILURE INDICATION
MBMS Attach	MBMS ATTACH COMMAND
MBMS Detach	MBMS DETACH COMMAND
Radio Link Parameter Update	RADIO LINK PARAMETER UPDATE INDICATION
UE Measurement Reporting [TDD]	UE MEASUREMENT REPORT
UE Measurement Termination [TDD]	UE MEASUREMENT TERMINATION REQUEST
UE Measurement Failure [TDD]	UE MEASUREMENT FAILURE INDICATION
Iur Invoke Trace	IUR INVOKE TRACE
Iur Deactivate Trace	IUR DEACTIVATE TRACE
Direct Information Transfer	DIRECT INFORMATION TRANSFER

8.2 Basic Mobility Procedures

8.2.1 Uplink Signalling Transfer

8.2.1.1 General

The procedure is used by the DRNC to forward a Uu message received on the CCCH to the SRNC.

This procedure shall use the connectionless mode of the signalling bearer.

8.2.1.2 Successful Operation
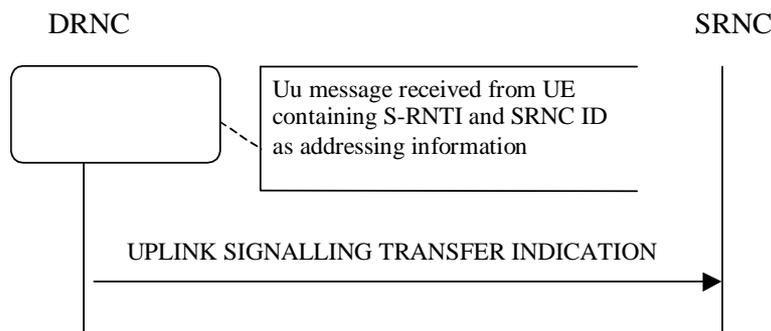
Figure 1: Uplink Signalling Transfer procedure, Successful Operation

When the DRNC receives an Uu message on the CCCH in which the UE addressing information is U-RNTI, i.e. S-RNTI and SRNC-ID, DRNC shall send the UPLINK SIGNALLING TRANSFER INDICATION message to the SRNC identified by the SRNC-ID received from the UE.

If at least one URA Identity is being broadcast in the cell where the Uu message was received (the accessed cell), the DRNC shall include a URA Identity for this cell in the *URA ID* IE, the *Multiple URAs Indicator* IE indicating whether or not multiple URA Identities are being broadcast in the accessed cell, and the RNC Identity of all other RNCs that are having at least one cell within the URA where the Uu message was received in the *URA Information* IE in the UPLINK SIGNALLING TRANSFER INDICATION message.

The DRNC shall include in the message the C-RNTI that it allocates to identify the UE in the radio interface in the accessed cell. If there is no valid C-RNTI for the UE in the accessed cell, the DRNS shall allocate a new C-RNTI for the UE [FDD - and in case Enhanced FACH operation is activated in the accessed cell the DRNC shall allocate the HS-DSCH-RNTI to the UE and shall include the *HS-DSCH-RNTI* IE in the message]. If the DRNS allocates a new C-RNTI it shall also release any C-RNTI previously allocated for the UE.

If the DRNS has any RACH and/or FACH resources allocated for the UE identified by the U-RNTI in another cell than the accessed cell in which the Mac SDU sizes, flow control settings (including credits) and/or transport bearer are different from those in the old cell, then the DRNS shall not include the *Common Transport Channel Resources Initialisation Not Required* IE in the UPLINK SIGNALLING TRANSFER INDICATION message. In addition the DRNS shall release these RACH and/or FACH resources in old cell.

If the DRNS has any RACH and/or FACH resources allocated for the UE identified by the U-RNTI in another cell than the accessed cell in which the Mac SDU sizes, flow control settings (including credits) and transport bearer are the same as in the old cell, there is no need for Common Transport Channel Resources Initialisation to be initiated. In that case, DRNC may include the *Common Transport Channel Resources Initialisation Not Required* IE in the UPLINK SIGNALLING TRANSFER INDICATION message. In addition, the DRNS shall move these RACH and/or FACH resources to the new cell. If no Common Transfer Channel Resources Initialisation procedure is executed, the currently applicable Mac SDU sizes, flow control settings (including credits) and transport bearer shall continue to be used while the UE is in the new cell.

If no context exists for this UE in the DRNC, the DRNC shall create a UE Context for this UE, allocate a D-RNTI for the UE Context, and include the *D-RNTI* IE and the identifiers for the CN CS Domain and CN PS Domain that the DRNC is connected to in the UPLINK SIGNALLING TRANSFER INDICATION message. These CN Domain Identifiers shall be based on the LAC and RAC respectively of the cell where the message was received from the UE.

Depending on local configuration in the DRNS, it may include the geographical co-ordinates of the cell, represented either by the *Cell GAI* IE or by the *Cell GA Additional Shapes* IE, in which the Uu message was received in the UPLINK SIGNALLING TRANSFER INDICATION message. If the DRNC includes the *Cell GA Additional Shapes* IE in the UPLINK SIGNALLING TRANSFER INDICATION message, it shall also include the *Cell GAI* IE.

[FDD - The DRNC shall include the *DPC Mode Change Support Indicator* IE in the UPLINK SIGNALLING TRANSFER INDICATION message if the accessed cell supports DPC mode change.]

The DRNC shall include [FDD - the *Cell Capability Container FDD* IE] [3.84Mcps TDD - the *Cell Capability Container TDD* IE] [1.28Mcps TDD - the *Cell Capability Container TDD LCR* IE] [7.68Mcps TDD - the *Cell Capability Container 7.68Mcps TDD* IE] in the UPLINK SIGNALLING TRANSFER INDICATION message if the accessed cell supports any functionalities listed in [FDD - 9.2.2.D] [3.84Mcps TDD - 9.2.3.1a] [1.28Mcps TDD - 9.2.3.1b] [7.68Mcps TDD - 9.2.3.31].

If MOCN or GWCN network sharing configuration is used then the DRNC shall include the broadcasted PLMN identities of the concerned cell in the *Multiple PLMN List* IE in the UPLINK SIGNALLING TRANSFER INDICATION message.

If available, the DRNC shall include the *SNA Information* IE for the concerned cell.

When receiving the *SNA Information* IE, the SRNC should use it to restrict cell access based on SNA information. See also [40] for a broader description of the SNA access control.

[FDD - The DRNC shall include the *Cell Portion ID* IE in the UPLINK SIGNALLING TRANSFER INDICATION message if available.]

[FDD – If the propagation delay value exceeds the range of the *Propagation Delay* IE then the DRNC shall if supported include the *Extended Propagation Delay* IE and set the *Propagation Delay* IE to its maximum value.]

If the *D-RNTI* IE is not to be included in the UPLINK SIGNALLING TRANSFER INDICATION message and the UE Link is currently stored in the UE Context in the DRNC, the DRNC shall assume that the UE changes the cell under which it camps in the DRNS (see ref. [50], section 5.1.6 on intra-DRNC cell change). In this case, if an MBMS session for some MBMS bearer services contained in the UE Link is ongoing in the cell identified by the *UC-ID* IE, the DRNC shall include in the *Active MBMS Bearer Service List* IE the *Transmission Mode* IE for each of these active MBMS bearer services. Or else, if the DRNC receives a Uu message on the CCCH in which the short identities for MBMS Selected Services are included, and the Uu message requests for MBMS PtP radio bearer establishment, the DRNC shall determine which TMGIs correspond with the short identities and shall include in the *Active MBMS Bearer Service List* IE the *TMGI* IE together with the *Transmission Mode* IE for each of these MBMS Selected Services.

If the CCCH message contains *Measurement results for monitored cells on non-used frequencies* IE in *Measured Result on RACH* IE, the DRNC may include in the UPLINK SIGNALLING TRANSFER INDICATION message the *Inter-frequency Cell List* IE for each of the measured inter-freqeuncy cells. The order of cells in *Measurement results for monitored cells on non-used frequencies* IE in the CCCH message shall be preserved in *Inter-frequency Cell List* IE. If the *UL UARFCN* IE in the *Inter-frequency Cell List* IE is not present, the default duplex distance defined for the operating frequency band shall be used in the SRNC (see ref. [43]).

[3.84 Mcps TDD - the DRNC shall include the *Rx Timing Deviation* IE unless the cell to which the CCCH message was sent is configured to use the extended timing advance in which case *Rx Timing Deviation 3.84Mcps Extended* IE shall be included.]

[7.68 Mcps TDD - the DRNC shall include the *Rx Timing Deviation 7.68Mcps* IE.]

8.2.1.3 Abnormal Conditions

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8.2.1A GERAN Uplink Signalling Transfer

8.2.1A.1 General

The procedure is used by the DBSS to forward an Um message received on the SRB2 to the SBSS/SRNC. The procedure is also used by the DRNC to forward a Uu message received on the CCCH to the SBSS.

This procedure shall use the connectionless mode of the signalling bearer.

8.2.1A.2 Successful Operation
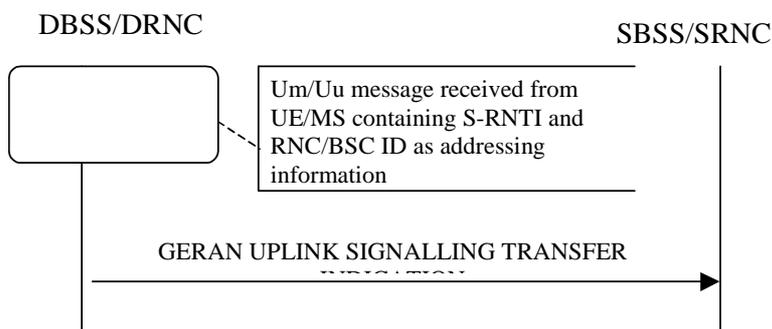
Figure 1A: GERAN Uplink Signalling Transfer procedure, Successful Operation

When the DBSS receives an Um message on the SRB2 in which the MS addressing information is G-RNTI, i.e. S-RNTI and BSC-ID, DBSS shall send the GERAN UPLINK SIGNALLING TRANSFER INDICATION message to the SBSS/SRNC identified by the BSC-ID received from the MS.

Alternatively, when the DRNC receives an Uu message on the CCCH in which the UE addressing information is U-RNTI, i.e. S-RNTI and SRNC-ID, and in which the SRNC-ID points to a GERAN BSS, the DRNC shall send the GERAN UPLINK SIGNALLING TRANSFER INDICATION message to the SBSS identified by SRNC-ID received from the UE.

If at least one GRA/URA Identity is being broadcast in the cell where the Um/Uu message was received (the accessed cell), the DBSS/DRNC shall include a GRA/URA Identity for this cell in the *URA ID* IE, the *Multiple URAs Indicator* IE indicating whether or not multiple GRA/URA Identities are being broadcast in the accessed cell, and the RNC/BSS Identity of all other RNC/BSSs that are having at least one cell within the GRA/URA where the Um/Uu message was received in the *URA Information* IE in the GERAN UPLINK SIGNALLING TRANSFER INDICATION message.

If no context exists for this UE/MS in the DBSS/DRNC, the DBSS/DRNC shall create a UE Context for this UE/MS, allocate a D-RNTI for the UE Context, and include the *D-RNTI* IE and the identifiers for the CN CS Domain and CN PS Domain that the DBSS/DRNC is connected to in the GERAN UPLINK SIGNALLING TRANSFER INDICATION message. These CN Domain Identifiers shall be based on the LAC and RAC respectively of the cell where the message was received from the UE/MS.

8.2.1A.3 Abnormal Conditions

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8.2.2 Downlink Signalling Transfer

8.2.2.1 General

The procedure is used by the SRNC to request to the DRNC the transfer of a Uu message on the CCCH in a cell. When used, the procedure is in response to a received Uplink Signalling Transfer procedure.

This procedure shall use the connectionless mode of the signalling bearer.

8.2.2.1.1 Downlink Signalling Transfer for Iur-g

The procedure is used by the SRNC/SBSS to request to the DBSS the transfer of an Um message on the SRB2 in a cell.

The procedure is used by the SBSS to request to the DRNC the transfer of a Uu message on the CCCH in a cell.

8.2.2.2 Successful Operation
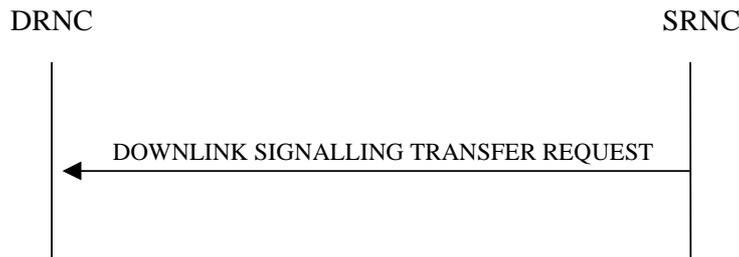
Figure 2: Downlink Signalling Transfer procedure, Successful Operation

The procedure consists of the DOWNLINK SIGNALLING TRANSFER REQUEST message sent by the SRNC to the DRNC.

The message contains the Cell Identifier (C-ID) contained in the received UPLINK SIGNALLING TRANSFER INDICATION message and the D-RNTI.

Upon receipt of the message, the DRNC shall send the L3 Information on the CCCH in the cell indicated by the *C-ID* IE to the UE identified by the *D-RNTI* IE.

If the *D-RNTI Release Indication* IE is set to "Release D-RNTI" and the DRNS has no dedicated resources (DCH, [TDD - USCH and/or DSCH]) allocated for the UE, the DRNS shall release the D-RNTI, the UE Context and any RACH and FACH resources and any C-RNTI allocated to the UE Context upon receipt of the DOWNLINK SIGNALLING TRANSFER REQUEST message. If a UE Link is currently stored in the UE Context, the DRNC shall perform UE De-linking as specified in [50], section 5.1.6.

If the *D-RNTI Release Indication* IE is set to "Release D-RNTI" and the DRNS has dedicated resources allocated for the UE, the DRNS shall only release any RACH and FACH resources and any C-RNTI allocated to the UE Context upon receipt of the DOWNLINK SIGNALLING TRANSFER REQUEST message.

If the *MBMS Bearer Service List* IE is included and *URA-ID* IE is not included in the DOWNLINK SIGNALLING TRANSFER REQUEST message, the DRNC shall perform the UE Linking as specified in [50], section 5.1.6.

If the *MBMS Bearer Service List* IE is included and the *URA-ID* IE is included in the DOWNLINK SIGNALLING TRANSFER REQUEST message, the DRNC shall perform the URA Linking as specified in [50], section 5.1.10.

If the *MBMS Bearer Service List* IE is included and the *Old URA-ID* IE is included in the DOWNLINK SIGNALLING TRANSFER REQUEST message, the DRNC shall perform URA De-linking for the URA identified by the *Old URA-ID* IE as specified in [50], section 5.1.10.

[FDD - If the *Enhanced PCH Capability* IE is included in the message, the DRNC should store the information. If the *Enhanced PCH Capability* IE is not included in the message, the DRNC shall use the information to release an RRC Connection for the UE in cells supporting Enhanced PCH.]

8.2.2.2.1 Successful Operation for Iur-g

The procedure consists of the DOWNLINK SIGNALLING TRANSFER REQUEST message sent by the SRNC/SBSS to the DBSS or by the SBSS to the DRNC.

The message contains the Cell Identifier (C-*ID*) contained in the received UPLINK SIGNALLING TRANSFER INDICATION message and the D-RNTI.

Upon receipt of the message, the DBSS shall send the L3 Information on the SRB2 in the cell indicated by the *C-ID* IE to the UE/MS identified by the *D-RNTI* IE.

Upon receipt of the message, the DRNC shall send the L3 Information on the CCCH in the cell indicated by the *C-ID* IE to the UE/MS identified by the *D-RNTI* IE.

8.2.2.3   Abnormal Conditions

If the user identified by the *D-RNTI* IE has already accessed another cell controlled by the DRNC than the cell identified by the *C-ID* IE in the DOWNLINK SIGNALLING TRANSFER REQUEST message, the message shall be ignored.

8.2.2.3.1   Abnormal Conditions for Iur-g

If the user identified by the *D-RNTI* IE has already accessed another cell controlled by the DRNC/DBSS than the cell identified by the *C-ID* IE in the DOWNLINK SIGNALLING TRANSFER REQUEST message, the message shall be ignored.

If the DRNC receives from the SBSS the DOWNLINK SIGNALLING TRANSFER REQUEST message, in which the *D-RNTI Release Indication* IE is set to "not Release D-RNTI", the DRNC shall ignore this IE and release the D-RNTI.

If the DBSS receives from the SBSS/SRNC the DOWNLINK SIGNALLING TRANSFER REQUEST message, in which the *D-RNTI Release Indication* IE is set to "not Release D-RNTI", the DBSS shall ignore this IE and release the D-RNTI.

8.2.3   Relocation Commit

8.2.3.1   General

The Relocation Commit procedure is used by source RNC to execute the Relocation. This procedure supports the Relocation procedures described in [2].

This procedure shall use the signalling bearer mode specified below.

8.2.3.2   Successful Operation

Figure 3: Relocation Commit procedure, Successful Operation

The source RNC sends the RELOCATION COMMIT message to the target RNC to request the target RNC to proceed with the Relocation. When the UE is utilising one or more radio links in the DRNC the message shall be sent using the connection oriented service of the signalling bearer and no further identification of the UE Context in the DRNC is required. If on the other hand, the UE is not utilising any radio link the message shall be sent using the connectionless service of the signalling bearer and the *D-RNTI* IE shall be included in the message to identify the UE Context in the DRNC.

Upon receipt of the RELOCATION COMMIT message from the source RNC the target RNC finalises the Relocation. If the message contains the transparent *RANAP Relocation Information* IE the target RNC shall use this information when finalising the Relocation.

8.2.3.2.1   Successful Operation for Iur-g

The source RNC/BSS sends the RELOCATION COMMIT message to the target RNC/BSS to request the target RNC/BSS to proceed with the Relocation.

The message shall be sent using the connectionless service of the signalling bearer and the *D-RNTI* IE shall be included in the message to identify the UE/MS context in the DBSS.

Upon receipt of the RELOCATION COMMIT message from the source RNC/BSS, the target RNC/BSS finalises the Relocation. If the message contains the transparent *RANAP Relocation Information* IE the target RNC/BSS shall use this information when finalising the Relocation.

8.2.3.3 Abnormal Conditions

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8.2.4 Paging

8.2.4.1 General

This procedure is used by the SRNC to indicate to a CRNC that a UE shall be paged in a cell or URA that is under the control of the CRNC.

This procedure shall use the connectionless mode of the signalling bearer.

8.2.4.2 Successful Operation

Figure 4: Paging procedure, Successful Operation

The procedure is initiated with a PAGING REQUEST message sent from the SRNC to the CRNC.

If the message contains the *C-ID* IE, the CRNC shall page in the indicated cell. Alternatively, if the message contains the *URA-ID* IE, the CRNC shall page in all cells that it controls in the indicated URA.

If the PAGING REQUEST message includes the *CN Originated Page to Connected Mode UE* IE, the CRNC shall include the information contained in the *CN Originated Page to Connected Mode UE* IE when paging the UE.

The CRNC shall calculate the Paging Occasions from the *IMSI* IE and the *DRX Cycle Length Coefficient* IE according to specification in ref. [15] and apply transmission on PICH and PCH [FDD - or HS-DSCH] accordingly.

[FDD - If the PAGING REQUEST message includes the *Enhanced PCH Capability* IE, the CRNC shall use the information to page the UE in cells supporting Enhanced PCH.]

8.2.4.2.1 Successful Operation for Iur-g

The procedure is initiated with a PAGING REQUEST message sent from the SBSS to the CRNC/CBSS or from the SRNC to the CBSS.

If the message contains the *URA-ID* IE, the CRNC/CBSS shall page in all cells that it controls in the indicated URA/GRA.

If the PAGING REQUEST message includes the *CN Originated Page to Connected Mode UE* IE, the CRNC/CBSS shall include the information contained in the *CN Originated Page to Connected Mode UE* IE when paging the UE.

The CBSS shall calculate the Paging Occasions from the *IMSI* IE and the *GERAN DRX Cycle Length Coefficient* IE according to specification in ref. [36] and apply transmission on PCCCH or PACCH accordingly.

8.2.4.3 Abnormal Conditions

8.2.4.3.1 Abnormal Conditions for Iur-g

If the DRNC receives a PAGING REQUEST message from the SBSS, which contains the *C-ID* IE, the message shall be ignored.

If the DBSS receives a PAGING REQUEST message from the SBSS/SRNC, which contains the *C-ID* IE, the message shall be ignored.

8.3 Dedicated Procedures

8.3.1 Radio Link Setup

8.3.1.1 General

This procedure is used for establishing the necessary resources in the DRNS for one or more radio links.

The connection-oriented service of the signalling bearer shall be established in conjunction with this procedure.

8.3.1.2 Successful Operation
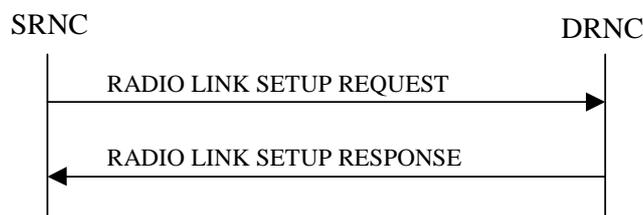
Figure 5: Radio Link Setup procedure: Successful Operation

When the SRNC makes an algorithmic decision to add the first cell or set of cells from a DRNS to the active set of a specific UE-UTRAN connection, the RADIO LINK SETUP REQUEST message is sent to the corresponding DRNC to request establishment of the radio link(s). The Radio Link Setup procedure is initiated with this RADIO LINK SETUP REQUEST message sent from the SRNC to the DRNC.

Upon receipt of the RADIO LINK SETUP REQUEST message, the DRNS shall reserve the necessary resources and configure the new RL(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The DRNS shall prioritise resource allocation for the RL(s) to be established according to Annex A.

If the RADIO LINK SETUP REQUEST message includes the *Allowed Queuing Time* IE the DRNS may queue the request for a time period not to exceed the value of the *Allowed Queuing Time* IE before starting to execute the request.

Transport Channels Handling:

> **DCH(s):**
>
> [TDD - If the *DCH Information* IE is present in the RADIO LINK SETUP REQUEST message, the DRNS shall configure the new DCHs according to the parameters given in the message.]
>
> If the RADIO LINK SETUP REQUEST message includes a *DCH Information* IE with multiple *DCH Specific Info* IEs, then the DRNS shall treat the DCHs in the *DCH Information* IE as a set of co-ordinated DCHs.
>
> If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Uplink DCH only", the DRNS shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.
>
> If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Downlink DCH only", the DRNS shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.
>
> [FDD - For each DCH which do not belong to a set of co-ordinated DCHs, and which includes a *QE-Selector* IE set to "selected", the DRNS shall use the Transport channel BER from that DCH for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH, the DRNS shall use the Physical

channel BER for the QE, ref. [4]. If the *QE-Selector* IE is set to "non-selected", the DRNS shall use the Physical channel BER for the QE in the UL data frames, ref. [4].]

For a set of co-ordinated DCHs, the DRNS shall use the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" for the QE in the UL data frames, ref. [4]. [FDD - If no Transport channel BER is available for the selected DCH, the DRNS shall use the Physical channel BER for the QE, ref. [4]. If all DCHs have *QE-Selector* IE set to "non-selected", the DRNS shall use the Physical channel BER for the QE, ref. [4].] [TDD - If no Transport channel BER is available for the selected DCH, the DRNS shall use 0 for the QE, ref. [4].]

The DRNS shall use the included *UL DCH FP Mode* IE for a DCH or a set of co-ordinated DCHs as the DCH FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs.

The DRNS shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs as the Time of Arrival Window Startpoint in the user plane for the DCH or the set of co-ordinated DCHs.

The DRNS shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs as the Time of Arrival Window Endpoint in the user plane for the DCH or the set of co-ordinated DCHs.

The *Frame Handling Priority* IE defines the priority level that should be used by the DRNS to prioritise between different frames of the data frames of the DCHs in the downlink on the radio interface in congestion situations once the new RL(s) have been activated.

The *Traffic Class* IE may be used to determine the transport bearer characteristics to apply between DRNC and Node B for the related DCH or set of co-ordinated DCHs. The DRNC should ignore the *Traffic Class* IE if the *TrCH Source Statistics Descriptor* IE indicates the value "RRC".

If the *TNL QoS* IE is included for a DCH or a set of co-ordinated DCHs and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related DCH or set of co-ordinated DCHs.

If the *DCH Information* IE contains a *DCH Specific Info* IE which includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:

- If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS shall apply the Guaranteed Rate in the uplink of this DCH. The DRNS may decide to request the SRNC to limit the user rate of the uplink of the DCH at any point in time. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to only reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCH Information* IE does not include the *Guaranteed UL Rate* IE, the DRNS shall not limit the user rate of the uplink of the DCH.

- If the *Guaranteed Rate Information* IE includes the *Guaranteed DL Rate* IE, the DRNS shall apply the Guaranteed Rate in the downlink of this DCH. The DRNS may decide to request the SRNC to limit the user rate of the downlink of the DCH at any point in time. The DRNS may request the SRNC to reduce the user rate of the downlink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to only reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCH Information* IE does not include the *Guaranteed DL Rate* IE, the DRNS shall not limit the user rate of the downlink of the DCH.

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer shall not be Established" for a DCH, then the DRNC shall not establish a transport bearer for the concerned DCH and shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding DCH in the RADIO LINK SETUP RESPONSE message.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer may not be Established" for a DCH and:]

- [FDD - if the DRNC establishes a transport bearer for the concerned DCH, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of a transport bearer for the DCH being established.]

- [FDD - if the DRNC does not establish a transport bearer for the concerned DCH, the DRNC shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding DCH in the RADIO LINK SETUP RESPONSE message.]

[TDD – DSCH(s):]

[TDD – If the *DSCH Information* IE is included in the RADIO LINK SETUP REQUEST message, the DRNC shall establish the requested DSCHs. If the *Transport Layer Address* IE and *Binding ID* IE are included in the *DSCH Information* IE the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the DSCH. In addition, the DRNC shall send a valid set of *DSCH Scheduling Priority* IE and *MAC-c/sh SDU Length* IE parameters to the SRNC in the RADIO LINK SETUP RESPONSE message. If the *PDSCH RL ID* IE indicates a radio link in the DRNS, then the DRNC shall allocate a DSCH-RNTI to the UE Context and include the *DSCH-RNTI* IE in the RADIO LINK SETUP RESPONSE message.]

[TDD – If the *DSCH Information* IE is included in the RADIO LINK SETUP REQUEST message, the DRNS may use the *Traffic Class* IE to determine the transport bearer characteristics to apply between DRNC and Node B for the related DSCHs.]

[TDD – The DRNC shall include the *DSCH Initial Window Size* IE in the RADIO LINK SETUP RESPONSE message for each DSCH, if the DRNS allows the SRNC to start transmission of MAC-c/sh SDUs before the DRNS has allocated capacity on user plane as described in [32].]

[TDD - If the RADIO LINK SETUP REQUEST message includes the *TNL QoS* IE in the *DSCH TDD Information* IE and if ALCAP is not used, the DRNS may use the *TNL QoS* IE to determine the transport bearer characteristics to apply in the uplink for the related DSCH.]

[TDD - USCH(s):]

[TDD - The DRNS shall use the list of RB Identities in the *RB Info* IE in the *USCH information* IE to map each *RB Identity* IE to the corresponding USCH. If the *Transport Layer Address* IE and *Binding ID* IE are included in the *USCH Information* IE the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the USCH.]

[TDD - If the *USCH Information* IE is included in the RADIO LINK SETUP REQUEST message, the DRNS may use the *Traffic Class* IE to determine the transport bearer characteristics to apply between DRNC and Node B for the related USCHs.]

[TDD - If the *USCH Information* IE is included in the RADIO LINK SETUP REQUEST message and contains the *TNL QoS* IE, and if ALCAP is not used, the DRNS may use the *TNL QoS* IE to determine the transport bearer characteristics to apply in the uplink for the related USCH.]

[TDD - If the *USCH Information* IE is included in the RADIO LINK SETUP REQUEST message, the DRNS shall establish the requested USCHs, and the DRNC shall provide the [3.84 Mcps TDD - *USCH Information Response* IE] [1.28 Mcps TDD - USCH Information Response LCR IE] [7.68 Mcps TDD - *USCH Information Response 7.68 Mcps* IE] in the RADIO LINK SETUP RESPONSE message.]

[TDD - CCTrCH Handling:]

[TDD - If the *UL CCTrCH Information* IE is present in the RADIO LINK SETUP REQUEST message, the DRNS shall configure the new UL CCTrCH(s) according to the parameters given in the message.]

[1.28Mcps TDD - If the *UL CCTrCH Information LCR* IE includes the *TDD TPC Uplink Step Size* IE, the DRNS shall configure the uplink TPC step size according to the parameters given in the message.]

[TDD - If the *DL CCTrCH Information* IE is present in the RADIO LINK SETUP REQUEST message, the DRNS shall configure the new DL CCTrCH(s) according to the parameters given in the message.]

[TDD - If the *TPC CCTrCH List* IE is present in the RADIO LINK SETUP REQUEST message, the DRNS shall configure the identified UL CCTrCHs with TPC according to the parameters given in the message.]

HS-DSCH:

If the *HS-DSCH Information* IE is present in the RADIO LINK SETUP REQUEST message, then:

- The DRNS shall setup the requested HS-PDSCH resources on the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE.

- The DRNC shall include the *HARQ Memory Partitioning* IE in the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the RADIO LINK SETUP RESPONSE message. [FDD – The *HARQ Memory Partitioning* IE shall either contain the *HARQ Memory Partitioning Information Extension For MIMO* IE or the *Number of Processes* IE set to a value higher than "8", if the *MIMO Activation Indicator* IE is included in the *HS-DSCH Information* IE.]

- The DRNC shall allocate an HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK SETUP RESPONSE message.

- The DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of transport bearer for every HS-DSCH MAC-d flow being established.

- If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *HS-DSCH Information* IE for an HS-DSCH MAC-d flow, then the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the concerned HS-DSCH MAC-d flow.

- The DRNS may use the *Traffic Class* IE for a specific HS-DSCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. If *TrCH Source Statistics Descriptor* IE is present with the value "RRC" in the *HS-DSCH MAC-d Flows Information* IE, then the DRNC should ignore the *Traffic Class* IE.

- If fields are to be included in the User Plane by the SRNC to handle TNL Congestion Control for HSDPA in the DRNS, then the DRNC shall include the *User Plane Congestion Fields Inclusion* IE in the *HS-DSCH Information Response* IE.

- If the RADIO LINK SETUP REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK SETUP REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

- If the RADIO LINK SETUP REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall ignore the *SID* IE and *MAC-d PDU Size* IE in the *MAC-d PDU Size Index* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related HSDPA Priority Queue.

- The DRNC shall include the *HS-DSCH Initial Capacity Allocation* IE in the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the RADIO LINK SETUP RESPONSE message for every HS-DSCH MAC-d flow being established, if the DRNS allows the SRNC to start transmission of MAC-d PDUs before the DRNS has allocated capacity on user plane as described in [32]. If RADIO LINK SETUP REQUEST message includes *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE set to the value "Flexible MAC-d PDU Size", then DRNC shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer recieved in RADIO LINK SETUP REQUEST in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE.

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *HS-SCCH Power Offset* IE in the *HS-DSCH Information* IE, then the DRNS may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]

- [FDD - The DRNC shall include the *Measurement Power Offset* IE in the *HS-DSCH Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [FDD - The DRNS shall allocate HS-SCCH codes corresponding to the HS-DSCH and the DRNC shall include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [TDD - The DRNS shall allocate HS-SCCH parameters corresponding to the HS-DSCH and the DRNC shall include the [3.84Mcps TDD - *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR* IE] [7.68 Mcps TDD - *HS-SCCH Specific Information Response 7.68 Mcps* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [TDD - The DRNC shall include the [3.84 Mcps TDD - *HS-PDSCH Timeslot Specific Information Response* IE] [1.28 Mcps TDD - *HS-PDSCH Timeslot Specific Information Response LCR* IE] [7.68 Mcps TDD - *HS-PDSCH Timeslot Specific Information Response* IE] in the *HS-DSCH Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [FDD - The DRNC shall include the *HS-PDSCH And HS-SCCH Scrambling Code* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information* IE, then the DRNS shall use the indicated HARQ Preamble Mode as described in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the DRNC shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK SETUP RESPONSE message. If the *HARQ Preamble Mode* IE is not included or if the mode 0 is applied, then the DRNC shall not include the *HARQ Preamble Mode Activation Indicator* IE in the RADIO LINK SETUP RESPONSE message.]

- If the RADIO LINK SETUP REQUEST message includes the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE, then the DRNS shall use the indicated format in user plane frame structure for HS-DSCH channels [32] and MAC-hs [41].

- [FDD – If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink between the DRNS and the SRNC for the related MAC-d flow.]

- [FDD - If the *Serving Cell Change CFN* IE is included in the RADIO LINK SETUP REQUEST message, then the DRNS shall activate the resources that are allocated for the new serving HS-DSCH Radio Link at the next coming CFN with a value equal to the value requested by the SRNC.]

- [FDD - If the *MIMO Activation Indicator* IE is included in the *HS-DSCH FDD Information* IE, then]

    - [FDD - The DRNS shall activate the MIMO mode for the HS-DSCH Radio Link.]

    - [FDD - The DRNS shall decide the pilot configuration and the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE, then the DRNS may if the value is set to "allowed" use 64 QAM for the HS-DSCH Radio Link, and the DRNS shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE with value set to "not allowed", then the DRNS shall not use 64 QAM for the HS-DSCH Radio Link.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *HS-DSCH MAC-d PDU Size Format* IE set to "Flexible MAC-d PDU Size" and if Sixtyfour QAM will not be used, the DRNS shall include the *HS-DSCH TB Size Table Indicator* IE in the RADIO LINK SETUP RESPONSE message if it decides to use the octet aligned table defined in [41] for HS-DSCH Transport Block Size signalling.]

- [FDD - The DRNS shall include the *SixtyfourQAM DL Support Indicator* IE in the RADIO LINK SETUP RESPONSE message.]

- [1.28Mcps TDD - If the RADIO LINK SETUP REQUEST message includes the *Number of Supported Carriers* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information* IE, the Node B shall use this information to allocate HSDPA resources over multiple carriers for the UE.]

- [1.28Mcps TDD - For a multi-frequency cell, if the RADIO LINK SETUP REQUEST message includes the *Multi-carrier HS-DSCH Physical Layer Category* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information* IE, the DRNS shall use this information together with the *HS-DSCH Physical Layer Category* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information* IE to allocate HSDPA resources over multiple carriers for the UE.]

[FDD - E-DCH:]

[FDD - If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-DCH Minimum Set E-TFCI Validity Indicator* IE the DRNS shall ignore the value in *E-DCH Minimum Set E-TFCI* IE. If the *E-DCH Minimum Set E-TFCI validity indicator* IE is absent DRNS shall use the value for the related resource allocation operation.]

[FDD - If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-DPDCH Power Interpolation* IE, the DRNS shall use the value to determine the applicable E-DPDCH power formula defined in [10]. If the *E-DPDCH Power Interpolation* IE is not present, the DRNS shall use the E-DPDCH power extrapolation formula defined in [10].]

[FDD - If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-TFCI Boost Information* IE, the DRNS shall use the information according to [10]. If the *E-TFCI Boost Information* IE is not present, the DRNS shall use the value "127" in the algorithm defined in [10].]

[FDD - If the *E-DCH FDD Information* IE is present in the RADIO LINK SETUP REQUEST message then:]

- [FDD - The DRNS shall setup the requested E-DCH resources on the Radio Links indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the DRNS shall use this information for the related resource allocation operation.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *RL specific E-DCH Information* IE for an E-DCH MAC-d flow, then if the *Transport Bearer Not Requested Indicator* IE is not included for this E-DCH MAC-d flow, the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the concerned E-DCH MAC-d flow. The DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of a transport bearer for every E-DCH MAC-d flow being established for which the *Transport Bearer Not Requested Indicator* IE was not included.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer shall not be Established" for an E-DCH MAC-d flow, then the DRNC shall not establish a transport bearer for the concerned E-DCH MAC-d flow and shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding E-DCH MAC-d flow in the RADIO LINK SETUP RESPONSE message.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer may not be Established" for an E-DCH MAC-d flow and:]

    - [FDD - if the DRNC establishes a transport bearer for the concerned E-DCH MAC-d flow, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of a transport bearer for the E-DCH MAC-d flow being established.]

    - [FDD - if the DRNC does not establish a transport bearer for the concerned E-DCH MAC-d flow, the DRNC shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding E-DCH MAC-d flow in the RADIO LINK SETUP RESPONSE message.]

- [FDD - The DRNS may use the *Traffic Class* IE for a specific E-DCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. If *TrCH Source Statistics Descriptor* IE is present with the value "RRC" in the *E-DCH MAC-d Flows Information* IE, then the DRNC should ignore the *Traffic Class* IE.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel Information* IE in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information* IE, then the DRNS shall use this information to optimise MAC-e scheduling decisions.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the DRNS shall use this information for the related resource allocation operation.]

- [FDD - If in the RADIO LINK SETUP REQUEST message the E-DCH Grant Type is indicated as being "E-DCH Non-Scheduled Transmission Grant" for an E-DCH MAC-d flow the DRNS shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the H*ARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE, if included, for the related resource allocation operation.]

- [FDD - If in the RADIO LINK SETUP REQUEST message the E-DCH Grant Type is indicated as being "E-DCH Scheduled Transmission Grant" for an E-DCH MAC-d flow the DRNS shall assume scheduled grants being configured for that E-DCH MAC-d flow.]

- [FDD - If the *TNL QoS* IE is included for a E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [FDD - The DRNC may include the *E-AGCH and E-RGCH and E-HICH FDD Scrambling Code* IE and shall include the *E-RGCH and E-HICH Channelisation Code* IE and the corresponding *E-HICH Signature Sequence IE* and the DRNC may include the corresponding *E-RGCH Signature Sequence* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK SETUP RESPONSE message, for every RL indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]

  [FDD – If the RADIO LINK SETUP REQUEST message includes the *E-DCH ReferencePower Offset* IE, then the DRNS may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *E-DCH Power Offset for Scheduling Info* IE, then the DRNS shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [FDD - If the RADIO LINK SETUP REQUEST message contains the *Serving E-DCH RL* IE indicating that the Serving E-DCH RL is in this DRNS:]

  - [FDD - The DRNS shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both and include these E-RNTI identifiers and the Channelisation Code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the *RL Information Response* IE for the indicated RL in the RADIO LINK SETUP RESPONSE message.]

  - [FDD - The DRNS may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the RADIO LINK SETUP RESPONSE message for the initial grant for the serving E-DCH RL.]

  - [FDD - If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the DRNS shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

  - [FDD - If a serving cell change is performed the RADIO LINK SETUP RESPONSE message may contain invalid data (see 9.2.2.4C).]

- [FDD - If the DRNS has no valid data for the *E-RGCH and E-HICH Channelisation Code* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK SETUP RESPONSE message,

then it shall insert the *E-RGCH and E-HICH Channelisation Code Validity Indicator* IE in the *E-DCH FDD DL Control Channel Information* IE, to indicate that the *E-RGCH and E-HICH Channelisation Code* IE contains invalid data.]

- [FDD - The DRNS may include the *Default Serving Grant in DTX Cycle 2* IE in the RADIO LINK SETUP RESPONSE message for the serving E-DCH RL.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *Bundling Mode Indicator* IE for a E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information* IE and the *Bundling Mode Indicator* IE is set to "Bundling" and the *E-TTI* IE is set to "2ms", then the DRNS shall use the bundling mode for the E-DCH UL data frames for the related MAC-d flow, otherwise the DRNS shall use the non-bundling mode for the E-DCH UL data frames for the related MAC-d flow.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH Maximum Bitrate* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH Processing Overload Level* IE, then if the DRNS could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *E-AGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

- [FDD - If the *Serving Cell Change CFN* IE is included in the RADIO LINK SETUP REQUEST message, then the DRNS shall activate the resources that are allocated for the new serving E-DCH Radio Link at the next coming CFN with a value equal to the value requested by the SRNC.]

- [FDD – If the RADIO LINK SETUP REQUEST message includes the *SixteenQAM UL Operation Indicator* IE, the DRNS shall activate/deactivate SixteenQAM UL Operation for the RL in accordance with the *SixteenQAM UL Operation Indicator* IE.]

    - [FDD – If SixteenQAM UL Operation is activated, then the DRNS shall base the handling of the Relative Grant signalling on Scheduling Grant Table 2 according to [41]. If SixteenQAM UL Operation is deactivated, then the DRNS shall base the handling of the Relative Grant signalling on Scheduling Grant Table 1 according to [41].]

[FDD - E-DCH -HS-DSCH:]

[FDD – If the RADIO LINK SETUP REQUEST message includes the *DCH Indicator For E-DCH-HSDPA Operation* IE, then the DRNS shall ignore the *DCH Information* IE in the RADIO LINK SETUP REQUEST message.]

Physical Channels Handling:

[FDD - Compressed Mode:]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, the DRNS shall store the information about the Transmission Gap Pattern Sequences to be used in the Compressed Mode Configuration. This Compressed Mode Configuration shall be valid in the DRNS until the next Compressed Mode Configuration is configured in the DRNS or the last Radio Link is deleted.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE and the *Active Pattern Sequence Information* IE, the DRNS shall use the information to activate the indicated Transmission Gap Pattern Sequence(s) in the new RL. The received *CM Configuration Change CFN* IE refers to latest passed CFN with that value. The DRNS shall treat the received *TGCFN* IEs as follows:]

- [FDD - If any received *TGCFN* IE has the same value as the received *CM Configuration Change CFN* IE, the DRNS shall consider the concerned Transmission Gap Pattern Sequence as activated at that CFN.]

- [FDD - If any received *TGCFN* IE does not have the same value as the received *CM Configuration Change CFN* IE but the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE has already passed, the DRNS shall consider the concerned Transmission Gap Pattern Sequence as activated at that CFN.]

- [FDD - For all other Transmission Gap Pattern Sequences included in the *Active Pattern Sequence Information* IE, the DRNS shall activate each Transmission Gap Pattern Sequence at the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE for the Transmission Gap Pattern Sequence.]

[FDD - If the *Downlink Compressed Mode Method* IE in one or more Transmission Gap Pattern Sequence is set to "SF/2" in the RADIO LINK SETUP REQUEST message and the UE Context is configured to use DPCH in the downlink, the DRNS shall include the *Transmission Gap Pattern Sequence Scrambling Code Information* IE in the RADIO LINK SETUP RESPONSE message indicating for each DL Channelisation Code whether the alternative scrambling code shall be used or not.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE and the *Active Pattern Sequence Information* IE and the concerned UE Context is configured to use F-DPCH in the downlink, the DRNS shall ignore, when activating the Transmission Gap Pattern Sequence(s), the information provided by the *Downlink Compressed Mode Method* IE if included for the concerned Transmission Gap Pattern Sequence(s).]

[FDD - DL Code Information:]

[FDD - When more than one DL DPDCH are assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to [8]. When *p* number of DL DPDCHs are assigned to each RL, the first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to "*PhCH number 1*", the second to "*PhCH number 2*", and so on until the *p*th to "*PhCH number p*".]

[FDD – Phase Reference Handling:]

[FDD – If Primary CPICH is not to be used as a Phase Reference for this Radio Link, the DRNC shall include the *Primary CPICH Usage For Channel Estimation* IE set to the value "Primary CPICH shall not be used" in the RADIO LINK SETUP RESPONSE message.]

[FDD – If Secondary CPICH may be used as a Phase Reference for this Radio Link, the DRNC shall include the *Secondary CPICH Information* IE in the RADIO LINK SETUP RESPONSE message.]

[FDD – If the DRNC doesn't include the *Secondary CPICH Information* IE in the RADIO LINK SETUP RESPONSE message, it shall not include the *Primary CPICH Usage For Channel Estimation* IE set to the value "Primary CPICH shall not be used" in the RADIO LINK SETUP RESPONSE message.]

General:

[FDD - If the *Propagation Delay* IE and optionally the *Extended Propagation Delay* IE are included, the DRNS may use this information to speed up the detection of UL synchronisation on the Uu interface.]

[FDD - If the received *Limited Power Increase* IE is set to "Used", the DRNS shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control.]

[TDD - If the RADIO LINK SETUP REQUEST message includes the [1.28 Mcps TDD and 3.84 Mcps TDD - *Maximum Number of DL Physical Channels per Timeslot* IE] [7.68 Mcps TDD - *Maximum Number of DL Physical Channels per Timeslot 7.68 Mcps* IE] the DRNC shall take this value into account when allocating physical resources, otherwise the DRNC can assume that this UE capability is consistent with the other signalled UE capabilities.]

[1.28Mcps TDD - If the RADIO LINK SETUP REQUEST message includes the *Support for 8PSK* IE within the *DL Physical Channel Information* IE *or UL Physical Channel Information* IE*,* the DRNC shall take this into account in the specified direction when allocating physical resources, otherwise the DRNC can assume that this UE does not support 8PSK resource allocation.]

[1.28Mcps TDD - If the RADIO LINK SETUP REQUEST message includes the *Support for PLCCH* IE within the *DL Physical Channel Information* IE *,* the DRNC shall take this into account when allocating PLCCH sequence numbers, otherwise the DRNC can assume that this UE does not support PLCCH.]

[FDD – If the RADIO LINK SETUP REQUEST message includes the *DL DPCH Information* IE, then the DRNS shall configure the concerned UE Context to use DPCH in the downlink, i.e. with a DL DPCCH and a DL DPDCH.]

[FDD – If the RADIO LINK SETUP REQUEST message includes the *F-DPCH Information* IE, then:]

- [FDD – The DRNS shall configure the concerned UE Context to use F-DPCH in the downlink, i.e. with transmission of only the TPC field.]

- [FDD – If the *F-DPCH Information* IE includes the *F-DPCH Slot Format Support Request* IE, then the DRNS shall configure the concerned UE Context for F-DPCH Slot Format operation according to [8] and include the *F-DPCH Slot Format* IE in the RADIO LINK SETUP RESPONSE message. If the *F-DPCH Information* IE includes the *F-DPCH Slot Format* IE, the DRNC may use the *F-DPCH Slot Format* IE to determine the F-DPCH slot format.]

[FDD - E-DPCH Handling:]

[FDD - If the *UL DPDCH Indicator for E-DCH operation* IE is included in the *UL DPCH Information* IE and set to "UL-DPDCH not present" the *Min UL Channelisation Code Length* IE, the *Puncture Limit* IE and the *TFCS* IE, within the *UL DPCH Information* IE shall be ignored and no UL DPDCH resources shall be allocated.]

[FDD - Continuous Packet Connectivity Handling:]

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Continuous Packet Connectivity DTX-DRX Information* IE, then:]

- [FDD – The DRNS shall configure the concerned UE Context for Continuous Packet Connectivity DTX operation according to [10].]

- [FDD – If *DRX Information* IE is included in the *Continuous Packet Connectivity DTX-DRX Information* IE, then the DRNS shall configure the concerned UE Context for Continuous Packet Connectivity DRX operation according to [10].]

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Continuous Packet Connectivity HS-SCCH less Information* IE, then:]

- [FDD – The DRNS shall configure the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE for Continuous Packet Connectivity HS-SCCH less operation according to [10].]

- [FDD – The DRNS shall allocate the HS-PDSCH codes needed for HS-SCCH less operation and include the *Continuous Packet Connectivity HS-SCCH less Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [FDD – If at least one of *HS-PDSCH Second Code Support* IE is set to "True", then the DRNC shall include *HS-PDSCH Second Code Index* IE in the RADIO LINK SETUP RESPONSE message.]

Radio Link Handling:

Diversity Combination Control:

[FDD - The *Diversity Control Field* IE indicates for each RL except for the first RL whether the DRNS shall combine the RL with any of the other RLs or not.]

- [FDD - If the *Diversity Control Field* IE is set to "May" (be combined with another RL), the DRNS shall decide for any of the alternatives.]

- [FDD - If the *Diversity Control Field* IE is set to "Must", the DRNS shall combine the RL with one of the other RL.]

- [FDD - If the *Diversity Control Field* IE is set to "Must not", the DRNS shall not combine the RL with any other existing RL.]

[FDD - When an RL is to be combined, the DRNS shall choose which RL(s) to combine it with.]

[FDD - The *Diversity Control Field* IE is only applicable for DCHs, in case of E-DCH it shall always be assumed to be set to "May".]

[FDD - In the RADIO LINK SETUP RESPONSE message, the DRNC shall indicate for each RL with the Diversity Indication in the *RL Information Response* IE whether the RL is combined or not.]

- [FDD - In case of not combining with a RL previously listed in the RADIO LINK SETUP RESPONSE message or for the first RL in the RADIO LINK SETUP RESPONSE message, the DRNC shall]

  - [FDD - in case of requested DCHs, include in the *DCH Information Response* IE in the RADIO LINK SETUP RESPONSE message for which the *Transport Bearer Not Requested Indicator* IE was not included the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each DCH of this RL.]

  - [FDD - in case of requested DCHs, include in the RADIO LINK SETUP RESPONSE message the *Transport Bearer Not Setup Indicator* IE for every DCH for which establishment of a transport bearer has not taken place as a result of information in the *Transport Bearer Not Requested Indicator* IE in the RADIO LINK SETUP REQUEST message.]

  - [FDD - in case of a requested E-DCH, include in the *E-DCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE for which the *Transport Bearer Not Requested Indicator* IE was not included message the *Binding ID* IE and the *Transport Layer Address* IE for the establishment of transport bearers for every E-DCH MAC-d flow being established.]

  - [FDD - in case of a requested E-DCH, include in the RADIO LINK SETUP RESPONSE message the *Transport Bearer Not Setup Indicator* IE for every E-DCH MAC-d flow for which establishment of a transport bearer has not taken place as a result of information in the *Transport Bearer Not Requested Indicator* IE in the RADIO LINK SETUP REQUEST message.]

- [FDD - Otherwise in case of combining, the *RL ID* IE indicates (one of) the RL(s) previously listed in this RADIO LINK SETUP RESPONSE message with which the concerned RL is combined and if the ALCAP is not used and the transport bearer for the DCH is already established, the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE included in the *RL Information* IE for a specific RL in the RADIO LINK SETUP REQUEST message, shall not be used. In case of combining an E-DCH RL, one of the RLs previously listed in this RADIO LINK SETUP RESPONSE message including the *E-DCH FDD Information Response* IE shall be regarded as the RL with which the concerned E-DCH RL is combined and if the ALCAP is not used, the *Transport Layer Address* IE and the *Binding ID* IE in the *RL SpecificE- DCH Information* IE included in the *RL Information* IE for a specific RL in the RADIO LINK SETUP REQUEST message, shall not be used.]

[TDD - The DRNC shall always include in the RADIO LINK SETUP RESPONSE message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DCH, DSCH and USCH of the RL.]

In the case of a set of co-ordinated DCHs requiring a new transport bearer the *Binding ID* IE and the *Transport Layer Address* IE shall be included in the RADIO LINK SETUP RESPONSE message for only one of the DCHs in the set of co-ordinated DCHs [FDD - where the *Transport Bearer Not Requested Indicator* IE was not included].

[FDD - Transmit Diversity:]

[FDD - If the cell in which the RL is being set up is capable to provide Close loop Tx diversity, the DRNC shall include the *Closed Loop Timing Adjustment Mode* IE in the RADIO LINK SETUP RESPONSE message indicating the configured Closed loop timing adjustment mode of the cell.]

[FDD - When the *Diversity Mode* IE is set to "STTD", or "Closed loop mode1", the DRNC shall activate/deactivate the Transmit Diversity for each Radio Link in accordance with the *Transmit Diversity Indicator* IE.]

DL Power Control:

[FDD - If both the *Initial DL TX Power* IE and *Uplink SIR Target* IE are included in the message, the DRNS shall use the indicated DL TX Power and Uplink SIR Target as initial value. If the value of the *Initial DL TX Power* IE is outside the configured DL TX power range, the DRNS shall apply these constraints when setting the initial DL TX power. The DRNS shall also include the configured DL TX power range defined by *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK SETUP RESPONSE message. The DRNS shall not transmit with a power higher than indicated by the *Maximum DL TX Power* IE or lower than indicated by the *Minimum DL TX Power* IE on any DL DPCH or on the F-DPCH of the RL except, if the UE Context is configured to use DPCH in the downlink, during compressed mode, when the δP_{curr}, as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

[FDD - If both the *Initial DL TX Power* and the *Uplink SIR Target* IEs are not included in the RADIO LINK SETUP REQUEST message, then DRNC shall determine the initial Uplink SIR Target and include it in the *Uplink SIR Target* IE in the RADIO LINK SETUP RESPONSE message.]

[TDD - The DRNC shall use the *Uplink SIR Target CCTrCH* IEs in the RADIO LINK SETUP RESPONSE message to indicate for any UL CCTrCH an Uplink SIR Target value in case this is deviating from the value included in the *Uplink SIR Target* IE specified for the Radio Link. If in any [3.84Mcps TDD - *UL CCTrCH Information* IE] [1.28Mcps TDD - *UL CCTrCH Information LCR* IE] [7.68Mcps TDD - *UL CCTrCH Information 7.68 Mcps* IE] the *Uplink SIR Target CCTrCH* IE is not included, the value of the *Uplink SIR Target* IE shall apply to the respective UL CCTrCH.]

[FDD - If the *Primary CPICH Ec/No* IE is present, the DRNC should use the indicated value when deciding the Initial DL TX Power. If the *Enhanced Primary CPICH Ec/No* IE is present, the DRNC should use the indicated value when deciding the Initial DL Tx Power.]

[TDD - If [3.84Mcps TDD and 7.68 Mcps TDD - the *DL Time Slot ISCP Info* IE] [1.28Mcps TDD - the *DL Time Slot ISCP Info LCR* IE] is present, the DRNSshould use the indicated value when deciding the Initial DL TX Power for the Radio Link. The DRNS shall use the indicated DL Timeslot ISCP when determining the initial DL power per timeslot as specified in [22], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged.]

[TDD - If the *Primary CCPCH RSCP Delta* IE is included, the DRNS should assume that the reported value for Primary CCPCH RSCP is in the negative range as per [24], and the value is equal to the *Primary CCPCH RSCP Delta* IE. If the *Primary CCPCH RSCP Delta* IE is not included and the *Primary CCPCH RSCP* IE is included, the DRNS should assume that the reported value is in the non-negative range as per [24], and the value is equal to the *Primary CCPCH RSCP* IE. The DRNS should use the indicated value when deciding the Initial DL TX Power for the Radio Link.]

[3.84 Mcps TDD and 7.68 Mcps TDD - The DL TX power upper and lower limit is configured in the following way: The DRNC shall include the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK SETUP RESPONSE message. If the maximum or minimum power needs to be different for particular DCH type CCTrCHs, the DRNC shall include the value(s) for that CCTrCH in the *CCTrCH Maximum DL TX Power* IE and *CCTrCH Minimum DL TX Power* IE. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE/*CCTrCH Maximum DL TX Power* IE or lower than indicated by the appropriate *Minimum DL TX Power* IE/*CCTrCH Minimum DL TX Power* IE on any DL DPCH within each CCTrCH of the RL.]

[1.28 Mcps TDD - The DL TX power upper and lower limit is configured in the following way: The DRNC shall include the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK SETUP RESPONSE message. If the maximum or minimum power needs to be different for particular timeslots within a DCH type CCTrCH, the DRNC shall include the value(s) for that timeslot in the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE within the *DL Timeslot Information LCR* IE. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE or lower than indicated by the appropriate *Minimum DL TX Power* IE on any DL DPCH within each timeslot of the RL.]

[1.28McpsTDD - If the *TSTD Support Indicator* IE is present, the DRNS shall apply this information when configuring the transmit diversity for the new radio link.]

[FDD - The DRNS shall start any DL transmission using the indicated DL TX power level (if received) or the decided DL TX power level on each DL channelisation code or on the F-DPCH of a RL until UL synchronisation is achieved on the Uu interface for the concerned RLS or Power Balancing is activated. No inner loop power control or power balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10] subclause 5.2.1.2) and the power control procedure (see 8.3.15).]

[TDD - The DRNS shall start any DL transmission using the decided DL TX power level on each DL channelisation code and on each Time Slot of a RL until UL synchronisation is achieved on the Uu interface for the concerned RL. No inner loop power control shall be performed during this period. Then after UL synchronisation, the DL power shall vary according to the inner loop power control (see ref. [22] subclause 4.2.3.3).]

[FDD - If the received *Inner Loop DL PC Status* IE is set to "Active", the DRNS shall activate the inner loop DL power control for all RLs. If *Inner Loop DL PC Status* IE is set to "Inactive", the DRNS shall deactivate the inner loop DL power control for all RLs according to ref. [10].]

[FDD - If the *DPC Mode* IE is present in the RADIO LINK SETUP REQUEST message, the DRNC shall apply the DPC mode indicated in the message, and be prepared that the DPC mode may be changed during the lifetime of the RL. If the *DPC Mode* IE is not present in the RADIO LINK SETUP REQUEST message, DPC mode 0 shall be applied (see ref. [10]).]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *DL Power Balancing Information* IE and the *Power Adjustment Type* IE is set to "Common" or "Individual", the DRNS shall activate the power balancing, if activation of power balancing by the RADIO LINK SETUP REQUEST message is supported, according to subclause 8.3.15, using the *DL Power Balancing Information* IE. If the DRNS starts the DL transmission and the activation of the power balancing at the same CFN, the initial power of the power balancing i.e. P_{init} shall be set to the power level indicated by the *Initial DL TX Power* IE (if received) or the decided DL TX power level on each DL channelisation code of a RL based on the *Primary CPICH Ec/No* IE or the *Enhanced Primary CPICH Ec/No* IE.]

[FDD - If activation of power balancing by the RADIO LINK SETUP REQUEST message is supported by the DRNS, the DRNC shall include the *DL Power Balancing Activation Indicator* IE in the *RL Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

Neighbouring Cell Handling:

If there are UMTS neighbouring cell(s) to the cell in which a Radio Link was established then:

- The DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Neighbouring FDD Cell Information* IE and/or *Neighbouring TDD Cell Information* IE in the *Neighbouring UMTS Cell Information* IE for each neighbouring FDD cell and/or TDD cell respectively. In addition, if the information is available, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Frame Offset* IE, *Primary CPICH Power* IE, *Cell Individual Offset* IE, *STTD Support Indicator* IE, *Closed Loop Mode1 Support Indicator* IE, *Coverage Indicator* IE, *Antenna Co-location Indicator* IE and *HCS Prio* IE in the *Neighbouring FDD Cell Information* IE, and the *Frame Offset* IE, *Cell Individual Offset* IE, *DPCH Constant Value* IE, the *PCCPCH Power* IE, *Coverage Indicator* IE, *Antenna Co-location Indicator* IE and *HCS Prio* IE in the *Neighbouring TDD Cell Information* IE or the *Neighbouring TDD Cell Information LCR* IE. If the *Neighbouring TDD Cell Information* IE includes the *Sync Case* IE for the set to "Case1", the DRNC shall include the *Time Slot For SCH* IE in the *Neighbouring TDD Cell Information* IE. If the *Neighbouring TDD Cell Information* IE includes *Sync Case* IE set to "Case2", the DRNC shall include the *SCH Time Slot* IE in the *Neighbouring TDD Cell Information* IE.

- If a UMTS neighbouring cell is not controlled by the same DRNC, the DRNC shall also include in the RADIO LINK SETUP RESPONSE message the *CN PS Domain Identifier* IE and/or *CN CS Domain Identifier* IE which are the identifiers of the CN nodes connected to the RNC controlling the UMTS neighbouring cell.

- If the information is available, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *DPC Mode Change Support Indicator* IE for each neighbour cell in the *Neighbouring FDD Cell Information* IE

- The DRNC shall include the *Cell Capability Container FDD* IE, the *Cell Capability Container TDD* IE and/or the *Cell Capability Container TDD LCR* IE if the DRNC is aware that the neighbouring cell supports any functionality listed in 9.2.2.D, 9.2.3.1a and 9.2.3.1b.

- For the UMTS neighbouring cells which are controlled by the DRNC, the DRNC shall report in the RADIO LINK SETUP RESPONSE message the restriction state of those cells, otherwise the *Restriction State Indicator* IE may be absent. The DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Restriction State Indicator* IE for the neighbouring cells which are controlled by the DRNC in the *Neighbouring FDD Cell Information* IE, the *Neighbouring TDD Cell Information* IE and the *Neighbouring TDD Cell Information LCR* IE.

- If MOCN or GWCN network sharing configuration is used then the DRNC shall include the broadcasted PLMN identities of the concerned neighbouring cells in the *Multiple PLMN List* IE in the *Neighbouring FDD Cell Information* IE, the *Neighbouring TDD Cell Information* IE and the *Neighbouring TDD Cell Information LCR* IE.

- If available, the DRNC shall include the *SNA Information* IE for the concerned neighbouring cells in the *Neighbouring FDD Cell Information* IE, the *Neighbouring TDD Cell Information* IE and the *Neighbouring TDD Cell Information LCR* IE.

- If available, the DRNC shall include the *Frequency Band Indicator* IE for the concerned neighbouring cells in the *Neighbouring FDD Cell Information* IE.

If there are GSM neighbouring cells to the cell(s) where a radio link is established, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Neighbouring GSM Cell Information* IE for each of the GSM neighbouring cells. If available the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Cell Individual Offset* IE, and if the *Cell Individual Offset* IE alone cannot represent the value of the offset, the DRNC shall also include the *Extended GSM Cell Individual Offset* IE in the *Neighbouring GSM Cell Information* IE. If available the DRNC shall also include in the RADIO LINK SETUP RESPONSE message the *Coverage Indicator* IE, *Antenna Co-location Indicator* IE and *HCS Prio* IE in the *Neighbouring GSM Cell Information* IE. If available, the DRNC shall also include the *SNA Information* IE for the concerned neighbouring cells in the *Neighbouring GSM Cell Information* IE.

When receiving the *SNA Information* IE in the RADIO LINK SETUP RESPONSE message, the SRNC should use it to restrict cell access based on SNA information. See also [40] for a broader description of the SNA access control.

If there are GERAN neighbouring cells to the cell(s) where a radio link is established, the DRNC shall include the *GERAN Cell Capability* IE in the *Neighbouring GSM Cell Information* IE that is included in the RADIO LINK SETUP RESPONSE message for each of the GERAN cells.

If there are GERAN Iu-mode neighbouring cells to the cell(s) where a radio link is established, the DRNC shall include, if available, the *GERAN Classmark* IE in the *Neighbouring GSM Cell Information* IE that is included in the RADIO LINK SETUP RESPONSE message for each of the GERAN Iu-mode neighbouring cells. Ref. [39] defines when the transmission of the *GERAN Classmark* IE will be required at the initiation of the Relocation Preparation procedure.

[1.28Mcps TDD - Uplink Synchronisation Parameters LCR:]

[1.28Mcps TDD - If the *Uplink Synchronisation Parameters LCR* IE is present, the DRNC shall use the indicated values of *Uplink synchronisation stepsize* IE and *Uplink synchronisation frequency* IE when evaluating the timing of the UL synchronisation.]

[1.28Mcps TDD - Uplink Timing Advance Control LCR:]

[1.28Mcps TDD - The DRNC shall include the *Uplink Timing Advance Control LCR* IE in the RADIO LINK SETUP RESPONSE message.]

[1.28Mcps TDD - PowerControl GAP:]

[1.28Mcps TDD - If applied in the DRNS, the DRNC may include the *PowerControl GAP* IE in the RADIO LINK SETUP RESPONSE message.]

MBMS Handling:

If the *MBMS Bearer Service List* IE is included in the RADIO LINK SETUP REQUEST message, the DRNC shall perform the UE Linking as specified in [50], section 5.1.6. If the UE Link is currently stored in the UE Context or the *MBMS Bearer Service List* IE is included in the RADIO LINK SETUP REQUEST message and if an MBMS session for some MBMS bearer services contained in the UE Link is ongoing in some of the cells identified by the *C-ID* IEs in the RADIO LINK SETUP REQUEST message, the DRNC shall include for each of these active MBMS bearer services in the *Active MBMS Bearer Service List* IE the *Transmission Mode* IE in the concerned *RL Information Response* IEs in the RADIO LINK SETUP RESPONSE message.

If the UE Link is currently stored in the UE Context or the *MBMS Bearer Service List* IE is included in the RADIO LINK SETUP REQUEST message and if an MBMS preferred frequency layer for some active MBMS bearer services contained in the UE Link is set in some of the cells identified by the *C-ID* IEs in the RADIO LINK SETUP REQUEST message, the DRNC shall include for each of these active MBMS bearer services in the *Active MBMS Bearer Service List* IE the *Preferred Frequency Layer* IE in the concerned *RL Information Response* IEs in the RADIO LINK SETUP RESPONSE message.

General:

If the RADIO LINK SETUP REQUEST message includes the *RL Specific DCH Information* IE, the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the DCH or the set of co-ordinated DCHs [FDD - for every DCH being established for which the *Transport Bearer Not Requested Indicator* IE was not included].

If no *D-RNTI* IE was included in the RADIO LINK SETUP REQUEST message, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *D-RNTI* IE, the *CN PS Domain Identifier* IE and/or the *CN CS Domain Identifier* IE for the CN domains (using LAC and RAC of the current cell) to which the DRNC is connected.

[1.28 Mcps TDD - If no *D-RNTI* IE was included in the RADIO LINK SETUP REQUEST message, the DRNC could include in the RADIO LINK SETUP RESPONSE message the *UARFCN* IE.]

[FDD - If the *D-RNTI* IE was included in the RADIO LINK SETUP REQUEST message the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Primary Scrambling Code* IE, the *UL UARFCN* IE and the *DL UARFCN* IE.]

[TDD - If the *D-RNTI* IE was included in the RADIO LINK SETUP REQUEST message the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *UARFCN* IE, the *Cell Parameter ID* IE and the *SCTD Indicator* IE.]

[3.84Mcps TDD and 7.68 Mcps TDD - If the *D-RNTI* IE was included in the RADIO LINK SETUP REQUEST message the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Sync Case* IE and if the *Sync Case* IE is set to "Case 2", the DRNC shall also include the *SCH Time Slot* IE in the RADIO LINK SETUP RESPONSE message. If the included *Sync Case* IE is set to "Case1", the DRNC shall also include the *Time Slot For SCH* IE.]

[3.84Mcps TDD - The DRNC shall include the *Secondary CCPCH Info TDD* IE in the RADIO LINK SETUP RESPONSE message if at least one *DSCH Information Response* IE or *USCH Information Response* IE is included in the message and at least one DCH is configured for the radio link. The DRNC shall also include the *Secondary CCPCH Info TDD* IE in the RADIO LINK SETUP RESPONSE message if at least one *DSCH Information Response* IE or *USCH Information Response* IE is included in the message and the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

[1.28 Mcps TDD - The DRNC shall include the *Secondary CCPCH Info TDD LCR* IE in the RADIO LINK SETUP RESPONSE message if at least one *DSCH Information Response LCR* IE or *USCH Information Response LCR* IE is included in the message and at least one DCH is configured for the radio link. The DRNC shall also include the *Secondary CCPCH Info TDD LCR* IE in the RADIO LINK SETUP RESPONSE message if at least one *DSCH Information Response LCR* IE or *USCH Information Response LCR* IE is included in the message and the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

[7.68 Mcps TDD - The DRNC shall include the *Secondary CCPCH Info 7.68Mcps TDD* IE in the RADIO LINK SETUP RESPONSE message if at least one *DSCH Information Response 7.68 Mcps* IE or *USCH Information Response 7.68 Mcps* IE is included in the message and at least one DCH is configured for the radio link. The DRNC shall also include the *Secondary CCPCH Info 7.68Mcps TDD* IE in the RADIO LINK SETUP RESPONSE message if at least one *DSCH Information Response 7.68 Mcps* IE or *USCH Information Response 7.68 Mcps* IE is included in the message and the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

For each Radio Link established in a cell in which at least one URA Identity is being broadcast, the DRNC shall include in the *URA Information* IE within the RADIO LINK SETUP RESPONSE message URA Innformation for this cell including the *URA ID* IE, the *Multiple URAs Indicator* IE indicating whether or not multiple URA Identities are being broadcast in the cell, and the *RNC-ID* IEsof all other RNCs that have at least one cell within the URA identified by the *URA ID* IE.

Depending on local configuration in the DRNS, the DRNC may include in the RADIO LINK SETUP RESPONSE message the *UTRAN Access Point Position* IE and the geographical co-ordinates of the cell, represented either by the *Cell GAI* IE or by the *Cell GA Additional Shapes* IE. If the DRNC includes the *Cell GA Additional Shapes* IE in the RADIO LINK SETUP RESPONSE message, it shall also include the *Cell GAI* IE.

If the DRNS need to limit the user rate in the uplink of a DCH due to congestion caused by the UL UTRAN Dynamic Resources (see subclause 9.2.1.79) when starting to utilise a new Radio Link, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Allowed UL Rate* IE in the *DCH Information Response* IE for this Radio Link.

If the DRNS need to limit the user rate in the downlink of a DCH due to congestion caused by the DL UTRAN Dynamic Resources (see subclause 9.2.1.79) when starting to utilise a new Radio Link, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Allowed DL Rate* IE in the *DCH Information Response* IE for this Radio Link.

If the *Permanent NAS UE Identity* IE is included in the RADIO LINK SETUP REQUEST message, the DRNS shall store the information for the considered UE Context for the life-time of the UE Context.

If the RADIO LINK SETUP REQUEST message includes the *Permanent NAS UE Identity* IE and a *C-ID* IE corresponding to a cell reserved for operator use, the DRNS shall use this information to determine whether it can set up a Radio Link on this cell or not for the considered UE Context.

If the HCS priority information is available in the DRNS, it shall include the *HCS Prio* IE for each of the established RLs in the RADIO LINK SETUP RESPONSE message.

The DRNS shall start receiving on the new RL(s) after the RLs are successfully established.

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Cell Portion ID* IE, the DRNS shall use this information when it decides to use beamforming for the new RL.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Initial DL DPCH Timing Adjustment Allowed* IE, then the DRNS may perform an initial DL DPCH Timing Adjustment (i.e. perform a timing advance or a timing delay with respect to the SFN timing) on a Radio Link. In this case, the DRNS shall include, for the concerned Radio Link(s), the *Initial DL DPCH Timing Adjustment* IE in the *Radio Link Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *D-RNTI* IE which already has a RL and *Synchonisation Indicator* IE, the DRNC shall ignore the value in the *Frame Offset* IE and *Chip Offset* IE in the RADIO LINK SETUP REQUEST message and shall include in the *Frame Offset* IE and *Chip Offset* IE the values used for already established RL in the RADIO LINK SETUP RESPONSE message.]

[FDD - Radio Link Set Handling:]

[FDD - The *First RLS Indicator* IE indicates if the concerned RL shall be considered part of the first RLS established towards this UE. The DRNS shall use the *First RLS Indicator* IE to determine the initial TPC pattern in the DL of the concerned RL and all RLs which are part of the same RLS, as described in [10], section 5.1.2.2.1.2.]

[FDD - For each RL not having a common generation of the TPC commands in the DL with another RL, the DRNS shall assign to the RL a unique value for the *RL Set ID* IE which uniquely identifies the RL as an RL Set within the UE

Context. In case of E-DCH, the generation of E-HICH related information for RLs in different RL Set(s) shall not be common.]

[FDD - For all RLs having a common generation of the TPC commands in the DL with another RL, the DRNS shall assign to each RL the same value for the *RL Set ID* IE which uniquely identifies these RLs as members of the same RL Set within the UE Context. In case of E-DCH, the generation of E-HICH information for all RLs in a RL Set shall be common.]

[FDD -The UL oout-of-sync algorithm defined in ref. [10] shall, for each of the established RL Set(s), use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE that are configured in the cells supporting the radio links of the RL Set. The UL in-sync algorithm defined in [10] shall, for each of the established RL Set(s), use the minimum value of the parameters N_INSYNC_IND that are configured in the cells supporting the radio links of the RL Set.]

[FDD - For each E-DCH RL which has or can have a common generation of E-RGCH information with another RL (current or future) when the DRNS would contain the E-DCH serving RL, the DRNS shall include the *E-DCH RL Set ID* IE in the RADIO LINK SETUP RESPONSE message. The value of the *E-DCH RL Set ID* IE shall allow the SRNC to identify the E-DCH RLs that have or can have a common generation of E-RGCH information.]

[TDD- E-DCH:]

[TDD – If the [3.84Mcps - *E-DCH Information* IE][1.28Mcps – *E-DCH Information 1.28Mcps* IE][7.68Mcps TDD - *E-DCH Information 7.68Mcps* IE] is present in the RADIO LINK SETUP REQUEST message:]

- [TDD – The DRNS shall setup the requested E-DCH resources on the Radio Link indicated by the *E-DCH Serving RL* IE.]

- [TDD – If the *TNL QoS* IE is included in the *E-DCH MAC-d Flows Information TDD* IE for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [TDD – If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *E-DCH MAC-d Flows Information TDD* IE for an E-DCH MAC-d flow, then the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the concerned E-DCH MAC-d flow.]

- [TDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow in the *E-DCH MAC-d Flows Information TDD* IE, the DRNS shall use this information for the related resource allocation operation.]

- [TDD - If in the RADIO LINK SETUP REQUEST message the *E-DCH Grant Type* IE in the *E-DCH MAC-d Flows Information TDD* IE is set to "Non-scheduled" for an E-DCH MAC-d flow the DRNS shall assume non-scheduled grants are configured for that E-DCH MAC-d flow.]

- [TDD - If in the RADIO LINK SETUP REQUEST message the *E-DCH Grant Type* IE in the *E-DCH MAC-d Flows Information TDD* IE is set to "Scheduled" the DRNS shall assume that it may issue scheduled grants for the concerned E-DCH MAC-d flow.]

- [TDD – If the RADIO LINK SETUP REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel Information* IE in the *E-DCH MAC-d Flows Information TDD* IE, then the DRNS shall use this information to optimise MAC-e scheduling decisions for the related queue.]

- [1.28Mcps TDD - If the RADIO LINK SETUP REQUEST message includes the *MAC-es Maximum Bit Rate LCR* IE in the *E-DCH Logical Channel Information* IE in the *E-DCH MAC-d Flows Information TDD* IE, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [3.84Mcps TDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH TDD Maximum Bitrate* IE in the *E-DCH TDD Information* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [1.28Mcps TDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH Physical Layer Category LCR* IE or *Extended E-DCH Physical Layer Category LCR* IE in the *E-DCH TDD Information LCR* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [7.68Mcps TDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH TDD Maximum Bitrate 7.68Mcps* IE in the *E-DCH TDD Information 7.68Mcps* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [3.84Mcps TDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH Processing Overload Level* IE in the *E-DCH TDD Information* IE, then if the DRNS could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of a processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [7.68Mcps TDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH Processing Overload Level* IE in the *E-DCH TDD Information 7.68Mcps* IE, then if the DRNS could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of a processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [1.28Mcps TDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH Processing Overload Level* IE in the *E-DCH TDD Information LCR* IE, then if the DRNS could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of a processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [TDD - The DRNS may use the *Traffic Class* IE for a specific E-DCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B.]

- [TDD – If the RADIO LINK SETUP REQUEST message includes the [3.84Mcps TDD - *E-DCH TDD Information* IE][1.28Mcps TDD - *E-DCH TDD Information LCR* IE] in the *E-DCH MAC-d Flows Information TDD* IE, then the DRNS shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [1.28Mcps TDD - If the RADIO LINK SETUP REQUEST message includes the *Maximum Number of Retransmission for Scheduling Info LCR* IE and the *E-DCH Retransmission timer for Scheduling Info LCR* IE in the *E-DCH TDD Information LCR* IE, then the DRNS shall use these parameters for the transmission of scheduling information without any MAC-d PDUs.]

- [3.84Mcps TDD - The DRNS shall determine any non-scheduled resource to be granted for the radio link, and return this in the *E-DCH Non-scheduled Grant Information TDD* IE in the *E-DCH Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [3.84Mcps TDD - The DRNS shall allocate an E-RNTI identifier and include the E-RNTI identifier and the E-AGCH(s) assigned in the *E-DCH Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [1.28Mcps TDD - The DRNS shall determine any non-scheduled resource to be granted for the radio link, and return this in the *E-DCH Non-scheduled Grant Information LCR TDD* IE in the *E-DCH Information Response 1.28Mcps* IE in the RADIO LINK ADDITION RESPONSE message.]

- [1.28Mcps TDD - The DRNS shall allocate an E-RNTI identifier and include the E-RNTI identifier, the E-AGCH(s) and E-HICH(s) assigned in the *E-DCH Information Response 1.28Mcps* IE in the RADIO LINK SETUP RESPONSE message.]

- [7.68Mcps TDD - The DRNS shall determine any non-scheduled resource to be granted for the radio link, and return this in the *E-DCH Non-scheduled Grant Information7.68Mcps TDD* IE in the *E-DCH Information Response* 7.68Mcps IE in the RADIO LINK SETUP RESPONSE message.]

- [7.68Mcps TDD - The DRNS shall allocate an E-RNTI identifier and include the E-RNTI identifier and the E-AGCH(s) assigned in the *E-DCH Information Response 7.68Mcps* IE in the RADIO LINK SETUP RESPONSE message.]

Response Message:

Upon receipt of the RADIO LINK SETUP REQUEST message, the DRNS allocates the requested type of channelisation codes and other physical channel resources for each RL and assigns a binding identifier and a transport layer address for each DCH, for each set of co-ordinated DCHs [TDD - and for each DSCH and USCH]. This information shall be sent to the SRNC in the RADIO LINK SETUP RESPONSE message when all the RLs have been successfully established.

[1.28 Mcps TDD – if the DRNS assigns one or more PLCCH sequence numbers to the radio link, then the PLCCH assignment(s) shall be sent to the SRNC in the RADIO LINK SETUP RESPONSE message.]

After sending the RADIO LINK SETUP RESPONSE message the DRNS shall continuously attempt to obtain UL synchronisation on the Uu interface and start reception on the new RL.

For each RL for which the *Delayed Activation* IE is not included in the RADIO LINK SETUP REQUEST message the DRNS shall:

- [FDD - start transmission on the DL DPDCH(s) of the new RL as specified in ref. [4].]

- [TDD - start transmission on the new RL immediately as specified in ref. [4].]

For each RL for which the *Delayed Activation* IE is included in the RADIO LINK SETUP REQUEST message, the DRNS shall:

- if the *Delayed Activation* IE indicates "Separate Indication":

  - not start any DL transmission for the concerned RL on the Uu interface;

- if the *Delayed Activation* IE indicates "CFN":

  - [FDD - start transmission on the DL DPDCH(s) of the new RL as specified in ref. [4], however never before the CFN indicated in the *Activation CFN* IE.]

  - [TDD - start transmission on the new RL at the CFN indicated in the *Activation CFN* IE as specified in ref. [4].]

8.3.1.3   Unsuccessful Operation
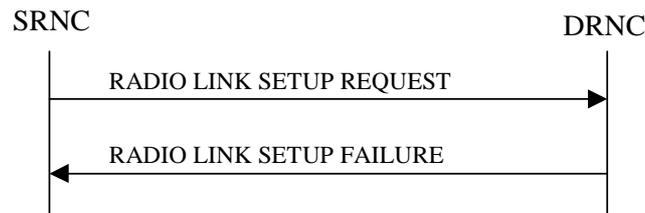
Figure 6: Radio Link Setup procedure: Unsuccessful Operation

If the establishment of at least one radio link is unsuccessful, the DRNC shall respond with a RADIO LINK SETUP FAILURE message. The DRNC shall include in the RADIO LINK SETUP FAILURE message a general *Cause* IE or a *Cause* IE for each failed radio link. The *Cause* IE indicates the reason for failure.

[FDD - If some radio links were established successfully, the DRNC shall indicate this in the RADIO LINK SETUP FAILURE message in the same way as in the RADIO LINK SETUP RESPONSE message.]

If the RADIO LINK SETUP REQUEST message includes a *C-ID* IE corresponding to a cell reserved for operator use and the *Permanent NAS UE Identity* IE is not present, the DRNC shall reject the procedure and send the RADIO LINK SETUP FAILURE message.

[FDD - If the RL identified by the *HS-PDSCH RL ID* IE is a radio link in the DRNS and this RL is successfully established, then the DRNC shall allocate a HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE, the *HS-DSCH FDD Information Response* IE and the *SixtyfourQAM DL Support Indicator* IE in the RADIO LINK SETUP FAILURE message.]

Typical cause values are:

Radio Network Layer Causes:

- [FDD - UL Scrambling Code Already in Use;]

- DL Radio Resources not Available;

- UL Radio Resources not Available;

- [FDD - Combining Resources not available;]

- Combining not Supported

- Requested Configuration not Supported;

- Cell not Available;

- [FDD - Requested Tx Diversity Mode not Supported;]

- Power Level not Supported;

- Number of DL codes not supported;

- Number of UL codes not supported;

- Dedicated Transport Channel Type not Supported;

- DL Shared Channel Type not Supported;

- [TDD - UL Shared Channel Type not Supported;]

- [FDD - UL Spreading Factor not Supported;]

- [FDD - DL Spreading Factor not Supported;]

- CM not Supported;

- [FDD - DPC mode change not Supported;]

- Cell reserved for operator use;

- Delayed Activation not supported;

- E-DCH not supported;

- [FDD - F-DPCH not supported;]

- [FDD - Continuous Packet Connectivity DTX-DRX operation not Supported;]

- [FDD - Continuous Packet Connectivity HS-SCCH less operation not Supported;]

- [FDD - MIMO not supported;]

- [FDD - E-DCH TTI2ms not supported;]

- [FDD - Continuous Packet Connectivity DTX-DRX operation not available;]

- [FDD - Continuous Packet Connectivity UE DTX Cycle not available;]

- [FDD - MIMO not available;]

- [FDD - SixteenQAM UL not Supported;]

- HS-DSCH MAC-d PDU Size Format not supported;

- [FDD – F-DPCH Slot Format operation not supported;]

- [FDD – E-DPCCH Power Boosting not supported.]

Transport Layer Causes:

- Transport Resource Unavailable.

Miscellaneous Causes:

- Control Processing Overload;

- HW Failure;

- Not enough User Plane Processing Resources.

8.3.1.4 Abnormal Conditions

If the DRNC receives either an S-RNTI or a D-RNTI which already has RL(s) established [FDD – and the *Synchronisation Indicator* IE is not included in the RADIO LINK SETUP message,] the DRNC shall send the RADIO LINK SETUP FAILURE message to the SRNC, indicating the reason for failure.

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Active Pattern Sequence Information* IE, but the *Transmission Gap Pattern Sequence Information* IE is not present, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message includes both the *Initial DL TX Power* IE and the *Primary CPICH Ec/No* IE or does not include either of these IEs, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD - or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"] the DRNS shall reject the Radio Link Setup procedure and shall respond with a RADIO LINK SETUP FAILURE message.

[FDD - If only the *Initial DL TX Power* IE or the *Uplink SIR Target* IE is included in the RADIO LINK SETUP REQUEST message, then DRNC shall reject the Radio Link Setup procedure and shall respond with the RADIO LINK SETUP FAILURE message.]

If the RADIO LINK SETUP REQUEST message includes a *DCH Information* IE with multiple *DCH Specific Info* IEs, and if the DCHs in the *DCH Information* IE do not have the same *Transmission Time Interval* IE in the *Semi-static Transport Format Information* IE, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Enhanced Primary CPICH Ec/No* IE, but not the *Primary CPICH Ec/No* IE, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE [FDD – or in the *RL Specific E-DCH Information* IE] included in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "Must" [FDD- or the RL is combined with an E-DCH RL previously listed in the RADIO LINK SETUP RESPONSE message in the DRNS], the DRNC shall reject the Radio Link Setup procedure and the DRNC shall respond with the RADIO LINK SETUP FAILURE message.

If ALCAP is not used, if the RADIO LINK SETUP REQUEST message does not include the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE nor *RL Specific E-DCH Information* IE in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "May", the DRNC shall reject the Radio Link Setup procedure and respond with the RADIO LINK SETUP FAILURE message.

If ALCAP is not used, if the RADIO LINK SETUP REQUEST message does not include the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "Must Not", the DRNC shall reject the Radio Link Setup procedure and respond with the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE or the *Binding ID* IE, and not both are present for a transport bearer intended to be established, the DRNC shall reject the Radio Link Setup procedure and the DRNC shall respond with the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message includes an *HS-PDSCH RL-ID* IE not referring to one of the radio links to be established, the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message contains the *HS-DSCH Information* IE and if the Priority Queues associated with the same *HS-DSCH MAC-d Flow ID* IE have the same *Scheduling Priority Indicator* IE value, the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, and the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE has the value "Indexed MAC-d PDU Size", the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message does not include the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, and the *HS-DSCH*

MAC-d PDU Size Format IE in the *HS-DSCH Information* IE has the value "Flexible MAC-d PDU Size", the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.

[FDD - If the RADIO LINK SETUP REQUEST message includes the *F-DPCH Information* IE and the *DL DPCH Information* IE, then the DRNS shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the RADIO LINK SETUP REQUEST message contains the *E-DCH RL Indication* IE set to "E-DCH", but does not contain the *E-DCH FDD Information* IE, or if the message contains the *E-DCH FDD Information* IE, but does not contain the *E-DCH RL Indication* IE set to "E-DCH", then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

If the RADIO LINK SETUP REQUEST message contains the *HS-PDSCH RL ID* IE and the *Serving E-DCH RL* IE but the Serving HS-DSCH Radio Link and the Serving E-DCH Radio Link are not configured to be in the same cell then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.

[FDD - If the RADIO LINK SETUP REQUEST message contains the *HS-PDSCH RL ID* IE and the *E-DPCH Information* IE which includes the *HS-DSCH Configured Indicator* IE set as "HS-DSCH not configured" then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message contains the *E-DPCH Information* IE but does not contain the *UL DPDCH Indicator for E-DCH operation* IE, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the RADIO LINK SETUP REQUEST message contains the *Serving Cell Change CFN* IE, but neither the *Serving E-DCH RL* IE nor *HS-DSCH Information* IE is included, then the DRNS shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the RADIO LINK SETUP REQUEST message contains the *Transport Bearer Not Requested Indicator* IE for a DCH, but does not contain the *Unidirectional DCH indicator* IE set to "Uplink DCH only" in the *DCH Specific Info* IE for the DCH, the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the RADIO LINK SETUP REQUEST message contains the *Synchronisation Indicator* IE for a RL, but does not contain the *D-RNTI* IE which already has the RL, the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the *UL DPCH Information* IE in the RADIO LINK SETUP REQUEST message contains the *UL DPCCH Slot Format* set to "4" but does not contain the *F-DPCH Information* IE, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the *UL DPCH Information* IE in the RADIO LINK SETUP REQUEST message contains the *UL DPCCH Slot Format* set to "0" or "2" and the *Continuous Packet Connectivity DTX-DRX Information* IE, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the *UL DPCH Information* IE in the RADIO LINK SETUP REQUEST message contains *Diversity Mode* IE set to "Closed loop mode 1"and *UL DPCCH Slot Format* not set to "2" or "3", then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message contains the *MIMO Activation Indicator* IE and/or *Sixtyfour QAM Usage Allowed Indicator* IE set to "Allowed", but does not contain the *HS-DSCH MAC-d PDU Size Format* IE set to "Flexible MAC-d PDU Size", then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the RADIO LINK SETUP REQUEST message contains the *Continuous Packet Connectivity DTX-DRX Information* IE but does not contain the *F-DPCH Information* IE, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message]

[FDD – If the RADIO LINK SETUP REQUEST message contains the *Serving E-DCH RL ID* IE but contains the *Transport Bearer Not Requested Indicator* IE in the RL Specific E-DCH Information for the new Serving E-DCH RL, the DRNC shall reject the procedure using the RADIO LINK FAILRE message.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Transport Bearer Not Requested Indicator* IE for a DCH or an E-DCH MAC-d Flow for a specific RL and the specific RL is combined with RL which the transport bearer is configured to be established for the DCH or the E-DCH MAC-d Flow, previously listed in the RADIO LINK SETUP RESPONSE message in the DRNS, the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

8.3.2 Radio Link Addition

8.3.2.1 General

This procedure is used for establishing the necessary resources in the DRNS for one [FDD – or more] additional RLs towards a UE when there is already at least one RL established to the concerned UE via this DRNS.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Radio Link Addition procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

[TDD - The Radio Link Addition procedure serves to establish a new Radio Link with the DSCH and USCH included, if they existed before.]

8.3.2.2 Successful Operation
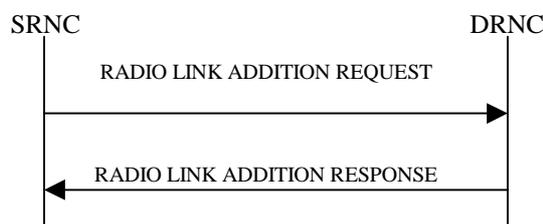
Figure 7: Radio Link Addition procedure: Successful Operation

The procedure is initiated with a RADIO LINK ADDITION REQUEST message sent from the SRNC to the DRNC.

Upon receipt, the DRNS shall reserve the necessary resources and configure the new RL(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The DRNS shall prioritise resource allocation for the RL(s) to be established according to Annex A.

Transport Channel Handling:

[3.84 Mcps TDD - The DRNC shall include the *UL/DL DPCH Information* IE within the *UL/DL CCTrCH Information* IE for each CCTrCH that requires DPCHs.]

[1.28 Mcps TDD - The DRNC shall include the UL/DL DPCH Information LCR IE within the UL/DL CCTrCH Information LCR IE for each CCTrCH that requires DPCHs.]

[7.68 Mcps TDD - The DRNC shall include the *UL/DL DPCH Information 7.68 Mcps* IE within the *UL/DL CCTrCH Information 7.68 Mcps* IE for each CCTrCH that requires DPCHs.]

[TDD - DSCH:]

[3.84 Mcps TDD - If the radio link to be added includes a DSCH, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message a *DSCH Information Response* IE for each DSCH.]

[1.28 Mcps TDD - If the radio link to be added includes a DSCH, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message a *DSCH Information Response LCR* IE for each DSCH.]

[7.68 Mcps TDD - If the radio link to be added includes a DSCH, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message a *DSCH Information Response 7.68 Mcps* IE for each DSCH.]

[TDD - USCH:]

[3.84 Mcps TDD - If the radio link to be added includes any USCHs, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message a *USCH Information Response* IE for each USCH.]

[1.28 Mcps TDD - If the radio link to be added includes any USCHs, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message a USCH Information Response LCR IE for each USCH.]

[7.68 Mcps TDD - If the radio link to be added includes any USCHs, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message a *USCH Information Response 7.68 Mcps* IE for each USCH.]

Physical Channels Handling:

[FDD -Compressed Mode:]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Active Pattern Sequence Information* IE, the DRNS shall use the information to activate the indicated (all ongoing) Transmission Gap Pattern Sequence(s) in the new RL. The received *CM Configuration Change CFN* IE refers to the latest passed CFN with that value. The DRNS shall treat the received *TGCFN* IEs as follows:]

- [FDD - If any received *TGCFN* IE has the same value as the received *CM Configuration Change CFN* IE, the DRNS shall consider the concerned Transmission Gap Pattern Sequence as activated at that CFN.]

- [FDD - If any received *TGCFN* IE does not have the same value as the received *CM Configuration Change CFN* IE but the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE has already passed, the DRNS shall consider the concerned Transmission Gap Pattern Sequence as activated at that CFN.]

- [FDD - For all other Transmission Gap Pattern Sequences included in the *Active Pattern Sequence Information* IE, the DRNS shall activate each Transmission Gap Pattern Sequence at the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE for the Transmission Gap Pattern Sequence.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Active Pattern Sequence Information* IE and the concerned UE Context is configured to use F-DPCH in the downlink, the DRNS shall ignore, when activating the Transmission Gap Pattern Sequence(s), the downlink compressed mode method information, if existing, for the concerned Transmission Gap Pattern Sequence(s) in the Compressed Mode Configuration.]

[FDD - If the *Active Pattern Sequence Information* IE is not included, the DRNS shall not activate the ongoing compressed mode pattern in the new RLs, but the ongoing pattern in the existing RL shall be maintained.]

[FDD - If some Transmission Gap Pattern sequences using SF/2 method are initialised in the DRNS and the UE Context is configured to use DPCH in the downlink, the DRNC shall include the *Transmission Gap Pattern Sequence Scrambling Code Information* IE in the *DL Code Information* IE in the RADIO LINK ADDITION RESPONSE message to indicate the Scrambling code change method that it selects for each channelisation code.]

[FDD - DL Code Information:]

[FDD - When more than one DL DPDCH are assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to [8]. When *p* number of DL DPDCHs are assigned to each RL, the first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to "*PhCH number 1*", the second to "*PhCH number 2*", and so on until the *p*th to "*PhCH number p*".]

[TDD - CCTrCH Handling:]

[TDD - If the *UL CCTrCH Information* IE is present, the DRNS shall configure the new UL CCTrCH(s) according to the parameters given in the message.]

[1.28Mcps TDD - If the *UL CCTrCH Information* IE includes the *TDD TPC Uplink Step Size* IE, the DRNS shall configure the uplink TPC step size according to the parameters given in the message, otherwise it shall use the step size configured in other radio link.]

[TDD - If the *DL CCTrCH Information* IE is present, the DRNS shall configure the new DL CCTrCH(s) according to the parameters given in the message.]

[TDD - If the *DL CCTrCH Information* IE includes the *TDD TPC Downlink Step Size* IE, the DRNS shall configure the downlink TPC step size according to the parameters given in the message, otherwise it shall use the step size configured in other radio link.]

General:

[FDD - The DRNS shall use the provided Uplink SIR Target value as the current target for the inner-loop power control.]

Radio Link Handling:

Diversity Combination Control:

The *Diversity Control Field* IE indicates for each RL whether the DRNS shall combine the new RL with existing RL(s) or not on the Iur.

- If the *Diversity Control Field* IE is set to "May" (be combined with another RL), the DRNS shall decide for any of the alternatives.

- If the *Diversity Control Field* IE is set to "Must", the DRNS shall combine the RL with one of the other RL. When a new RL is to be combined the DRNS shall choose which RL(s) to combine it with.

- If the *Diversity Control Field* IE is set to "Must not", the DRNS shall not combine the RL with any other existing RL.

[FDD - The *Diversity Control Field* IE is only applicable for DCHs, in case of E-DCH it shall always be assumed to be set to "May".]

In the case of not combining a RL with a RL established with a previous Radio Link Setup or Radio Link Addition Procedure or a RL previously listed in the RADIO LINK ADDITION RESPONSE message, the DRNC shall indicate with the Diversity Indication in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message that no combining is done. In this case the DRNC shall:

- include in the *DCH Information Response* IE both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DCH of the RL in the RADIO LINK ADDITION RESPONSE message [FDD - for which the *Transport Bearer Not Requested Indicator* IE was not included].

- [FDD - include in the RADIO LINK ADDITION RESPONSE the *Transport Bearer Not Setup Indicator* IE for every DCH or set of co-ordinated DCHs for which establishment of a transport bearer has not taken place as a result of information in the *Transport Bearer Not Requested Indicator* IE in the RADIO LINK ADDITION REQUEST message.]

[FDD - In case of not combining E-DCH, the *E-DCH FDD Information Response* IE shall be included in the RADIO LINK ADDITION RESPONSE message containing the *Binding ID* IE and the *Transport Layer Address* IE for the establishment of transport bearers for every E-DCH MAC-d flow being established for which the *Transport Bearer Not Requested Indicator* IE was not included.]

[FDD - In case of not combining E-DCH, the DRNC shall include in the RADIO LINK ADDITION RESPONSE the *Transport Bearer Not Setup Indicator* IE for every E-DCH MAC-d flow for which establishment of a transport bearer has not taken place as a result of information in the *Transport Bearer Not Requested Indicator* IE in the RADIO LINK ADDITION REQUEST message.]

In the case of combining with a RL established with a previous Radio Link Setup or Radio Link Addition Procedure or with a RL previously listed in this RADIO LINK ADDITION RESPONSE message, the DRNC shall indicate with the Diversity Indication in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message that the RL is combined. In this case, the *RL ID* IE indicates (one of) the previously established RL(s) or a RL previously listed in this RADIO LINK ADDITION RESPONSE message with which the new RL is combined and if the ALCAP is not used [FDD - and the transport bearer for this DCH is already established], the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE included in the *RL Information* IE for a specific RL in the RADIO LINK ADDITION REQUEST message, shall not be used.

[FDD - In the case of combining with an E-DCH RL established with a previous Radio Link Setup or Radio Link Addition Procedure or with a RL previously listed in this RADIO LINK ADDITION RESPONSE message, one of the previously established RLs or a RL previously listed in this RADIO LINK ADDITION RESPONSE message including the *E-DCH FDD Information Response* IE shall be regarded as the RL with which the concerned E-DCH RL is combined and if the ALCAP is not used, the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific E-DCH Information* IE included in the *RL Information* IE for a specific RL in the RADIO LINK ADDITION REQUEST message, shall not be used. In case E-DCH RL is established for the first time, the DRNC shall include *E-DCH FDD Information Response* IE instead of

using the Diversity Indication of DCH RL in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message. It shall include in the *E-DCH FDD Information Response* IE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearers to be established for each E-DCH MAC-d flow of this E-DCH RL for which the *Transport Bearer Not Requested Indicator* IE was not included.]

[TDD - The DRNC shall always include in the RADIO LINK ADDITION RESPONSE message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DSCH and USCH of the RL.]

In the case of a set of co-ordinated DCHs, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *Binding ID* IE and the *Transport Layer Address* IE for only one of the DCHs in the set of co-ordinated DCHs [FDD - for which the *Transport Bearer Not Requested Indicator* IE was not included].

If the DRNS needs to limit the user rate in the uplink of a DCH due to congestion caused by the UL UTRAN Dynamic Resources (see subclause 9.2.1.79) when starting to utilise a new Radio Link, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *Allowed UL Rate* IE in the *DCH Information Response* IE for this Radio Link.

If the DRNS needs to limit the user rate in the downlink of a DCH due to congestion caused by the DL UTRAN Dynamic Resources (see subclause 9.2.1.79) when starting to utilise a new Radio Link, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *Allowed DL Rate* IE in the *DCH Information Response* IE for this Radio Link.

[FDD - Transmit Diversity:]

[FDD - The DRNS shall activate any feedback mode diversity according to the received settings.]

[FDD - If the cell in which the RL is being added is capable to provide Close loop Tx diversity, the DRNC shall indicate the Closed loop timing adjustment mode of the cell by including the *Closed Loop Timing Adjustment Mode* IE in the RADIO LINK ADDITION RESPONSE message.]

[FDD - When the *Transmit Diversity Indicator* IE is present the DRNS shall activate/deactivate the Transmit Diversity for each new Radio Link in accordance with the *Transmit Diversity Indicator* IE using the diversity mode of the existing Radio Link(s).]

DL Power Control:

[FDD - If the *Primary CPICH Ec/No* IE or the *Primary CPICH Ec/No* IE and the *Enhanced Primary CPICH Ec/No* IE measured by the UE are included for an RL in the RADIO LINK ADDITION REQUEST message, the DRNS shall use this in the calculation of the Initial DL TX Power for this RL. If the *Primary CPICH Ec/No* IE is not present, the DRNS shall set the Initial DL TX Power based on the power relative to the Primary CPICH power used by the existing RLs.]

[TDD - If [3.84Mcps TDD and 7.68 Mcps TDD - the *DL Time Slot ISCP Info* IE] [1.28Mcps TDD - the *DL Time Slot ISCP Info LCR* IE] is included in the RADIO LINK ADDITION REQUEST message, the DRNS shall use it in the calculation of the Initial DL TX Power.]

[TDD - If the *Primary CCPCH RSCP Delta* IE is included, the DRNS shall assume that the reported value for Primary CCPCH RSCP is in the negative range as per [24], and the value is equal to the *Primary CCPCH RSCP Delta* IE. If the *Primary CCPCH RSCP Delta* IE is not included and the *Primary CCPCH RSCP* IE is included, the DRNS shall assume that the reported value is in the non-negative range as per [24], and the value is equal to the *Primary CCPCH RSCP* IE. The DRNS shall use it in the calculation of the Initial DL TX Power.]

[TDD - If the *Primary CCPCH RSCP* IE, *Primary CCPCH RSCP Delta* IE, [3.84Mcps TDD and 7.68 Mcps TDD - and the *DL Time Slot ISCP Info* IE] [1.28Mcps TDD - and the *DL Time Slot ISCP Info LCR* IE] are not present, the DRNS shall set the Initial DL TX Power based on the power relative to the Primary CCPCH power used by the existing RL.]

[FDD - The Initial DL TX Power shall be applied until UL synchronisation is achieved on the Uu interface for that RLS or Power Balancing is activated. No inner loop power control or power balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref. [10] subclause 5.2.1.2) and the power control procedure (see 8.3.7).]

[TDD - The Initial DL TX Power shall be applied until UL synchronisation is achieved on the Uu interface for that RL. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref. [22] subclause 4.2.3.3).]

[3.84 Mcps TDD and 7.68 Mcps TDD - The DL TX power upper and lower limit is configured in the following way: The DRNC shall include the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK ADDITION RESPONSE message. If the maximum or minimum power needs to be different for particular DCH type CCTrCHs, the DRNC shall include the value(s) for that CCTrCH in the *CCTrCH Maximum DL TX Power* IE and *CCTrCH Minimum DL TX Power.* The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE/*CCTrCH Maximum DL TX Power* IE or lower than indicated by the appropriate *Minimum DL TX Power* IE/*CCTrCH Minimum DL TX Power* IE on any DL DPCH within each CCTrCH of the RL.]

[1.28 Mcps TDD - The DL TX power upper and lower limit is configured in the following way: The DRNC shall include the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK ADDITION RESPONSE message. If the maximum or minimum power needs to be different for particular timeslots within a DCH type CCTrCH, the DRNC shall include the value(s) for that timeslot in the *Maximum DL TX Power* IE and *Minimum DL TX Power* within the *DL Timeslot Information LCR* IE. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE or lower than indicated by the appropriate *Minimum DL TX Power* IE on any DL DPCH within each timeslot of the RL.]

[FDD - If the *DPC Mode* IE is present in the RADIO LINK ADDITION REQUEST message, the DRNC shall apply the DPC mode indicated in the message, and be prepared that the DPC mode may be changed during the lifetime of the RL. If the *DPC Mode* IE is not present in the RADIO LINK ADDITION REQUEST message, DPC mode 0 shall be applied (see ref. [10]).]

The DRNC shall provide the configured *Maximum DL TX Power* IE and *Minimum DL TX Power* IE for every new RL to the SRNC in the RADIO LINK ADDITION RESPONSE message. The DRNS shall not transmit with a power higher than indicated by the *Maximum DL TX Power* IE or lower than indicated by the *Minimum DL TX Power* IE on any DL DPCH [FDD - or on the F-DPCH] of the RL [FDD - except, if the UE Context is configured to use DPCH in the downlink, during compressed mode, when the δP_{curr}, as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Individual" in the existing RL(s) and the RADIO LINK ADDITION REQUEST message includes the *DL Reference Power* IE, the DRNS shall activate the power balancing and use the *DL Reference Power* IE for the power balancing procedure in the new RL(s), if activation of power balancing by the RADIO LINK ADDITION REQUEST message is supported by the DRNS, according to subclause 8.3.15. In this case, the DRNC shall include the *DL Power Balancing Activation Indicator* IE in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message. If the DRNS starts the DL transmission and the activation of the power balancing at the same CFN, the initial power of the power balancing, i.e. P_{init} shall be set to the power level which is calculated based on the *Primary CPICH Ec/No* IE or the *Enhanced Primary CPICH Ec/No* IE (if received), or to the power level which is calculated based on the power relative to the Primary CPICH power used by the existing RLs.]

UL Power Control:

The DRNC shall also provide the configured UL Maximum SIR and UL Minimum SIR for every new RL to the SRNC in the RADIO LINK ADDITION RESPONSE message. These values are taken into consideration by DRNS admission control and shall be used by the SRNC as limits for the UL inner-loop power control target.

Neighbouring Cell Handling:

If there are UMTS neighbouring cell(s) to the cell in which a Radio Link was established then:

- The DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *Neighbouring FDD Cell Information* IE and/or *Neighbouring TDD Cell Information* IE in the *Neighbouring UMTS Cell Information* IE for each neighbouring FDD cell and/or TDD cell respectively. In addition, if the information is available, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *Frame Offset* IE, *Primary CPICH Power* IE, *Cell Individual Offset* IE, *STTD Support Indicator* IE, *Closed Loop Mode1 Support Indicator* IE, *Coverage Indicator* IE, *Antenna Co-location Indicator* IE and *HCS Prio* IE in the *Neighbouring FDD Cell Information* IE, and the *Frame Offset* IE, *Cell Individual Offset* IE, *DPCH Constant Value* IE and the *PCCPCH Power* IE, *Coverage Indicator* IE, *Antenna Co-*

location Indicator IE and *HCS Prio* IE in the *Neighbouring TDD Cell Information* IE or the *Neighbouring TDD Cell Information LCR* IE. If the *Neighbouring TDD Cell Information* IE includes the *Sync Case* IE set to "Case1", the DRNC shall include the *Time SlotFor SCH* IE in the *Neighbouring TDD Cell Information* IE. If the *Neighbouring TDD Cell Information* IE includes the *Sync Case* IE set to "Case2", the DRNC shall include the *SCH Time Slot* IE in the *Neighbouring TDD Cell Information* IE.

- If a UMTS neighbouring cell is not controlled by the same DRNC, the DRNC shall also include in the RADIO LINK ADDITION RESPONSE message the *CN PS Domain Identifier* IE and/or *CN CS Domain Identifier* IE which are the identifiers of the CN nodes connected to the RNC controlling the UMTS neighbouring cell.

- [FDD - The DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *DPC Mode Change Support Indicator* IE for each neighbour cell in the *Neighbouring FDD Cell Information* IE if this information is available.]

- The DRNC shall include the *Cell Capability Container FDD* IE, the *Cell Capability Container TDD* IE, *Cell Capability Container 7.68Mcps TDD* IE and/or the *Cell Capability Container TDD LCR* IE if the DRNC is aware that the neighbouring cell supports any functionality listed in 9.2.2.D, 9.2.3.1a and 9.2.3.1b.

- For the UMTS neighbouring cells which are controlled by the DRNC, the DRNC shall report in the RADIO LINK ADDITION RESPONSE message the restriction state of those cells, otherwise *Restriction State Indicator* IE may be absent. The DRNC shall include the *Restriction State Indicator* IE for the neighbouring cells which are controlled by the DRNC in the *Neighbouring FDD Cell Information* IE, the *Neighbouring TDD Cell Information* IE and the *Neighbouring TDD Cell Information LCR* IE.

- If available, the DRNC shall include the *SNA Information* IE for the concerned neighbouring cells in the *Neighbouring FDD Cell Information* IE, the *Neighbouring TDD Cell Information* IE and the *Neighbouring TDD Cell Information LCR* IE.

- If MOCN or GWCN network sharing configuration is used then the DRNC shall include the broadcasted PLMN identities of concerned neighbouring cells in the *Multiple PLMN List* IE in the *Neighbouring FDD Cell Information* IE, the *Neighbouring TDD Cell Information* IE and the *Neighbouring TDD Cell Information LCR* IE.

- If available, the DRNC shall include the *Frequency Band Indicator* IE for the concerned neighbouring cells in the *Neighbouring FDD Cell Information* IE.

If there are GSM neighbouring cells to the cell(s) in which a radio link is established, the DRNC shall include the *Neighbouring GSM Cell Information* IE in the RADIO LINK ADDITION RESPONSE message for each of the GSM neighbouring cells. If available the DRNC shall include the *Cell Individual Offset* IE, and if the *Cell Individual Offset* IE alone cannot represent the value of the offset, the DRNC shall also include the *Extended GSM Cell Individual Offset* IE in the *Neighbouring GSM Cell Information IE*. If available the DRNC shall also include the *Coverage Indicator* IE, *Antenna Co-location Indicator* IE and *HCS Prio* IE in the *Neighbouring GSM Cell Information* IE. If available, the DRNC shall also include the *SNA Information* IE for the concerned neighbouring cells in the *Neighbouring GSM Cell Information* IE.

When receiving the *SNA Information* IE in the RADIO LINK ADDITION RESPONSE message, the SRNC should use it to restrict cell access based on SNA information. See also [40] for a broader description of the SNA access control.

If there are GERAN neighbouring cells to the cell(s) where a radio link is established, the DRNC shall include the *GERAN Cell Capability* IE in the *Neighbouring GSM Cell Information* IE that is included in the RADIO LINK ADDITION RESPONSE message for each of the GERAN cells.

If there are GERAN Iu-mode neighbouring cells to the cell(s) where a radio link is established, the DRNC shall include, if available, the *GERAN Classmark* IE in the *Neighbouring GSM Cell Information* IE that is included in the RADIO LINK ADDITION RESPONSE message for each of the GERAN Iu-mode neighbouring cells. Ref. [39] defines when the transmission of the *GERAN Classmark* IE will be required at the initiation of the Relocation Preparation procedure.

[1.28Mcps TDD - Uplink Synchronisation Parameters LCR:]

[1.28Mcps TDD - If the *Uplink Synchronisation Parameters LCR* IE is present, the DRNC shall use the indicated values of *Uplink synchronisation stepsize* IE and *Uplink synchronisation frequency* IE when evaluating the timing of the UL synchronisation.]

[1.28Mcps TDD - Uplink Timing Advance Control LCR:]

[1.28Mcps TDD - The DRNC shall include the *Uplink Timing Advance Control LCR* IE in the RADIO LINK ADDITION RESPONSE message.]

[1.28Mcps TDD - PowerControl GAP:]

[1.28Mcps TDD **-** If applied in the DRNS, the DRNC may include the *PowerControl GAP* IE in the RADIO LINK ADDITION RESPONSE message.]

MBMS Handling:

If the UE Link is currently stored in the UE Context and an MBMS session for some MBMS bearer services contained in the UE Link is ongoing in some of the cells identified by the *C-ID* IEs in the RADIO LINK ADDITION REQUEST message, the DRNC shall include for each of these active MBMS bearer services in the *Active MBMS Bearer Service List* IE the *Transmission Mode* IE in the concerned *RL Information Response* IEs in the RADIO LINK ADDITION RESPONSE message.

If the UE Link is currently stored in the UE Context and an MBMS preferred frequency layer for some active MBMS bearer services contained in the UE Link is set in some of the cells identified by the *C-ID* IEs in the RADIO LINK ADDITION REQUEST message, the DRNC shall include for each of these active MBMS bearer services in the *Active MBMS Bearer Service List* IE the *Preferred Frequency Layer* IE in the concerned *RL Information Response* IEs in the RADIO LINK ADDITION RESPONSE message.

General:

If the RADIO LINK ADDITION REQUEST message includes the *RL Specific DCH Information* IE, the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the DCH or the set of co-ordinated DCHs [FDD - for which the *Transport Bearer Not Requested Indicator* IE was not included].

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer shall not be Established" for a DCH, then the DRNC shall not establish a transport bearer for the concerned DCH and shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding DCH in the RADIO LINK ADDITION RESPONSE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer may not be Established" for a DCH and:]

- [FDD - if the DRNC establishes a transport bearer for the concerned DCH, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of a transport bearer for the DCH being established.]

- [FDD - if the DRNC does not establish a transport bearer for the concerned DCH, the DRNC shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding DCH in the RADIO LINK ADDITION RESPONSE message.]

Depending on local configuration in the DRNS, the DRNC may include in the RADIO LINK ADDITION RESPONSE message the *UTRAN Access Point Position* IE and the geographical co-ordinates of the cell, represented either by the *Cell GAI* IE or by the *Cell GA Additional Shapes* IE. If the DRNC includes the *Cell GA Additional Shapes* IE in the RADIO LINK ADDITION RESPONSE message, it shall also include the *Cell GAI* IE.

For each Radio Link established in a cell in which at least one URA Identity is being broadcast, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message a URA Information for this cell including the *URA ID* IE, the *Multiple URAs Indicator* IE indicating whether or not multiple URA Identities are being broadcast in the cell, and the *RNC-ID* IEs of all other RNCs that have at least one cell within the URA identified by the *URA ID* IE.

[3.84Mcps TDD - The DRNC shall include the *Secondary CCPCH Info TDD* IE in the RADIO LINK ADDITION RESPONSE message if at least one *DSCH Information Response* IE or *USCH Information*

Response IE is included in the message and at least one DCH is configured for the radio link. The DRNC shall also include the *Secondary CCPCH Info TDD* IE in the RADIO LINK ADDITION RESPONSE message if at least one *DSCH Information Response* IE or *USCH Information Response* IE is included in the message and the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

[1.28 Mcps TDD - The DRNC shall include the *Secondary CCPCH Info TDD LCR* IE in the RADIO LINK ADDITION RESPONSE message if at least one *DSCH Information Response LCR* IE or *USCH Information Response LCR* IE is included in the message and at least one DCH is configured for the radio link. The DRNC shall also include the *Secondary CCPCH Info TDD LCR* IE in the RADIO LINK ADDITION RESPONSE message if at least one *DSCH Information Response LCR* IE or *USCH Information Response LCR* IE is included in the message and the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

[7.68 Mcps TDD - The DRNC shall include the *Secondary CCPCH Info 7.68 Mcps TDD* IE in the RADIO LINK ADDITION RESPONSE message if at least one *DSCH Information Response 7.68 Mcps* IE or *USCH Information Response 7.68 Mcps* IE is included in the message and at least one DCH is configured for the radio link. The DRNC shall also include the *Secondary CCPCH Info 7.68 Mcps TDD* IE in the RADIO LINK ADDITION RESPONSE message if at least one *DSCH Information Response 7.68 Mcps* IE or *USCH Information Response 7.68 Mcps* IE is included in the message and the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

If the *Permanent NAS UE Identity* IE is present in the RADIO LINK ADDITION REQUEST message, the DRNS shall store the information for the considered UE Context for the lifetime of the UE Context.

If the RADIO LINK ADDITION REQUEST message includes a *C-ID* IE corresponding to a cell reserved for operator use and the Permanent NAS UE Identity is available in the DRNC for the considered UE Context, the DRNC shall use this information to determine whether it can add the Radio Link on this cell or not.

If the HCS priority information is available in the DRNS, it shall include the *HCS Prio* IE for each of the established RLs in the RADIO LINK ADDITION RESPONSE message.

The DRNS shall start receiving on the new RL(s) after the RLs are successfully established.

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Initial DL DPCH Timing Adjustment Allowed* IE, then the DRNS may perform an initial DL DPCH Timing Adjustment (i.e. perform a timing advance or a timing delay with respect to the SFN timing) on a Radio Link. In this case, the DRNS shall include, for the concerned Radio Link(s), the *Initial DL DPCH Timing Adjustment* IE in the *Radio Link Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Synchronisation Indicator* IE, set to "Timing Maintained Synchronisation", the DRNS shall use synchronisation procedure B according to subclause 4.3.2.4 in [10]. The DRNS shall select the TPC pattern as if "first RLS indicator" is set to "first RLS" according to subclause 5.1.2.2.1.2 in [10].]

[FDD – If the UE Context is configured for F-DPCH Slot Format operation, then the DRNS shall include the *F-DPCH Slot Format* IE in the RADIO LINK ADDITION RESPONSE message.]

[FDD - Radio Link Set Handling:]

[FDD - For each RL not having a common generation of the TPC commands in the DL with another RL, the DRNS shall assign to the RL a unique value for the *RL Set ID* IE which uniquely identifies the RL as an RL Set within the UE Context. In case of E-DCH, the generation of E-HICH information for RLs in different RL Sets shall not be common.]

[FDD - For all RLs having a common generation of the TPC commands in the DL with another new or existing RL, the DRNS shall assign to each RL the same value for the *RL Set ID* IE which uniquely identifies these RLs as members of the same RL Set within the UE Context. In case of E-DCH, the generation of E-HICH related information for all RLs in a RL Set shall be common.]

[FDD - After addition of the new RL(s), the UL out-of-sync algorithm defined in ref. [10] shall, for each of the previously existing and newly established RL Set(s), use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE that are configured in the cells supporting the radio links of the RL Set. The UL in-sync algorithm defined in [10] shall, for each of the established RL Set(s), use the minimum

value of the parameters N_INSYNC_IND that are configured in the cells supporting the radio links of the RL Set.]

[FDD - For each E-DCH RL which has or can have a common generation of E-RGCH information with another RL (current or future) when the DRNS would contain the E-DCH serving RL, the DRNS shall include the *E-DCH RL Set ID* IE in the RADIO LINK ADDITION RESPONSE message. The value of the *E-DCH RL Set ID* IE shall allow the SRNC to identify the E-DCH RLs that have or can have a common generation of E-RGCH information.]

[FDD - Serving HS-DSCH Radio Link Change:]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *HS-DSCH Serving Cell Change Information* IE, then the *HS-PDSCH RL ID* IE indicates the new Serving HS-DSCH Radio Link:]

- [FDD - In the new configuration the DRNS shall allocate the HS-PDSCH resources for the new Serving HS-PDSCH Radio Link.]

- [FDD - The DRNS may include the *HARQ Memory Partitioning* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message. The *HARQ Memory Partitioning* IE may contain the *HARQ Memory Partitioning Information Extension For MIMO* IE.]

- [FDD - If fields are to be included in the User Plane by the SRNC to handle TNL Congestion Control for HSDPA in the DRNS, then the DRNC shall include the *User Plane Congestion Fields Inclusion* IE in the *HS-DSCH Information Response* IE.]

- [FDD - The DRNC shall allocate a new HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD - If a reset of the MAC-hs is not required the DRNS shall include the *MAC-hs Reset Indicator* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD - The DRNC shall include the *Measurement Power Offset* IE in the *HS-DSCH Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD - The DRNS shall allocate HS-SCCH codes corresponding to the HS-DSCH and include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD - The DRNC shall include the *HS-PDSCH And HS-SCCH Scrambling Code* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink between the DRNS and the SRNC for the related MAC-d flow.

- [FDD – If the *HS-DSCH Serving Cell Change Information* IE includes the *Continuous Packet Connectivity HS-SCCH less Information* IE, then:]

  - [FDD – The DRNS shall configure the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE for Continuous Packet Connectiviy HS-SCCH less operation according to [10].]

  - [FDD – The DRNS shall allocate the HS-PDSCH codes needed for HS-SCCH less operation and include the *Continuous Packet Connectivity HS-SCCH less Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD – If at least one of *HS-PDSCH Second Code Support* IE is set to "True", then the DRNC shall include *HS-PDSCH Second Code Index* IE in the RADIO LINK ADDITION RESPONSE message.]

  [FDD - HS-DSCH Setup at Serving HS-DSCH Radio Link Change:]

  [FDD - If the *HS-DSCH Information* IE is present in the *HS-DSCH Serving Cell Change Information* IE, then:]

  - [FDD - The DRNS shall setup the requested HS-PDSCH resources on the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE.]

- [FDD - The DRNC shall include the *HARQ Memory Partitioning* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message. The *HARQ Memory Partitioning* IE shall either contain the *HARQ Memory Partitioning Information Extension For MIMO* IE or the *Number of Processes* IE set to a value higher than "8", if the *MIMO Activation Indicator* IE is included in the *HS-DSCH Information* IE.]

- [FDD - The DRNS may use the *Traffic Class* IE for a specific HS-DSCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. If *TrCH Source Statistics Descriptor* IE is present with the value "RRC" in the *HS-DSCH MAC-d Flows Information* IE, then the DRNC should ignore the *Traffic Class* IE. If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink between the DRNS and the SRNC for the related MAC-d flow.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall ignore the *SID* IE and *MAC-d PDU Size* IE in the *MAC-d PDU Size Index* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related HSDPA Priority Queue.]

- [FDD - The DRNC shall include the *HS-DSCH Initial Capacity Allocation* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message for every HS-DSCH MAC-d flow being established, if the DRNS allows the SRNC to start transmission of MAC-d PDUs before the DRNS has allocated capacity on user plane as described in [32]. If RADIO LINK ADDITION REQUEST message includes *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE set to "Flexible MAC-d PDU Size", then DRNC shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer recieved in RADIO LINK ADDITION REQUEST in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *HS-SCCH Power Offset* IE in the *HS-DSCH Information* IE, then the DRNS may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information* IE, then the DRNS shall use the indicated HARQ Preamble Mode as described in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the DRNC shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK ADDITION RESPONSE message. If the *HARQ Preamble Mode* IE is not included or if the mode 0 is applied, then the DRNC shall not include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE, then the Node B shall use the indicated format in user plane frame structure for HS-DSCH channels [32] and MAC-hs [41].]

- [FDD – If the *MIMO Activation Indicator* IE is included in the *HS-DSCH FDD Information* IE, then]

  - [FDD – The DRNS shall activate the MIMO mode for the HS-DSCH Radio Link.]

- [FDD – The DRNS shall decide the pilot configuration and the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE, then the DRNS may if the value is set to "allowed" use 64 QAM for the HS-DSCH Radio Link, and the DRNS shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE with value set to "not allowed", then the DRNS shall not use 64 QAM for the HS-DSCH Radio Link.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *HS-DSCH MAC-d PDU Size Format* IE set to "Flexible MAC-d PDU Size" and if Sixtyfour QAM will not be used, the DRNS shall include the *HS-DSCH TB Size Table Indicator* IE in the RADIO LINK ADDITION RESPONSE message if it decides to use the octet aligned table defined in [41] for HS-DSCH Transport Block Size signalling.]

- [FDD - The DRNC may include the *Transport Layer Address* IE and the *Binding ID* IE for HS-DSCH MAC-d flow in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD - If the *Serving Cell Change CFN* IE is included in the RADIO LINK ADDITION REQUEST message, then the DRNS shall activate the resources that are allocated for the new serving HS-DSCH Radio Link at the next coming CFN with a value equal to the value requested by the SRNC, or earlier. In this case, in the new configuration the DRNS shall, if applicable, de-allocate the HS-PDSCH resources of the old Serving HS-PDSCH Radio Link. The DRNS shall deactivate those resources at the next coming CFN with a value equal to the value requested by the SRNC.]

- [FDD - If the *Serving Cell Change CFN* IE is not included then the DRNS shall activate immediately the resources that are allocated for the new serving HS-PDSCH Radio Link, and shall keep active the resources that are allocated for the previous serving HS-PDSCH Radio Link.]

- [FDD - If the requested Serving HS-DSCH Radio Link Change was successful or unsucessful, the DRNS shall indicate this in the *HS-DSCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

[FDD - E-DCH:]

[FDD - If the RADIO LINK ADDITION REQUEST message contains the *E-DCH RL Indication* IE, set to "E-DCH",in the *RL Information* IE, then for every such RL.]

- [FDD - The DRNS shall setup the E-DCH resources as configured in the UE context.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *RL specific E-DCH Information* IE for an E-DCH MAC-d flow, then if the *Transport Bearer Not Requested Indicator* IE is not included for this E-DCH MAC-d flow, the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the concerned E-DCH MAC-d flow.]

- [FDD - The DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of a transport bearer for every E-DCH MAC-d flow being established for which the *Transport Bearer Not Requested Indicator* IE was not included.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer Shall not be Established" for an E-DCH MAC-d flow, then the DRNC shall not establish a transport bearer for the concerned E-DCH MAC-d flow and shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding E-DCH MAC-d flow in the RADIO LINK ADDITION RESPONSE message.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer may not be Established" for an E-DCH MAC-d flow and:]

  - [FDD - if the DRNC establishes a transport bearer for the concerned E-DCH MAC-d flow, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *Binding ID* IE

and *Transport Layer Address* IE for establishment of a transport bearer for the E-DCH MAC-d flow being established.]

- [FDD - if the DRNC does not establish a transport bearer for the concerned E-DCH MAC-d flow, the DRNC shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding E-DCH MAC-d flow in the RADIO LINK ADDITION RESPONSE message.]

- [FDD - The DRNC may include the *E-AGCH and E-RGCH and E-HICH FDD Scrambling Code* IE and shall include the *E-RGCH and E-HICH Channelisation Code* IE and the corresponding *E-HICH Signature Sequence* IE and the DRNC may include the corresponding *E-RGCH Signature Sequence* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK ADDITION RESPONSE message, for every RL indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

- [FDD - If the DRNS has no valid data for the *E-RGCH and E-HICH Channelisation Code* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK ADDITION RESPONSE message, then it shall insert the *E-RGCH and E-HICH Channelisation Code Validity Indicator* IE in the *E-DCH FDD DL Control Channel Information* IE, to indicate that the *E-RGCH and E-HICH Channelisation Code* IE contains invalid data.]

[FDD - Serving E-DCH Radio Link Change:]

[FDD - If the RADIO LINK ADDITION REQUEST message contains the *Serving E-DCH RL* IE, this indicates the new Serving E-DCH Radio Link:]

- [FDD - If the new Serving E-DCH RL is in this DRNS:]

  - [FDD - The DRNS shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both and include these E-RNTI identifiers and the Channelisation Code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the *E-DCH Serving Cell Change Information Response* IE for the indicated RL in the RADIO LINK ADDITION RESPONSE message.]

  - [FDD - The DRNS may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the *E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message for the initial grant for the new serving E-DCH RL.]

  - [FDD - If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the DRNS shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

  - [FDD - If a serving cell change is performed the RADIO LINK ADDITION RESPONSE message may contain invalid data (see 9.2.2.4C).]

  - [FDD - The DRNS may include the *Default Serving Grant in DTX Cycle 2* IE in the RADIO LINK ADDITION RESPONSE message for the new serving E-DCH RL.]

- [FDD – The DRNS may include the E-RGCH/E-HICH Channelisation Code IE and/or the E-HICH Signature Sequence IE and/or the E-RGCH Signature Sequence IE or may alternatively include the E-RGCH Release Indicator IE in the E-DCH FDD DL Control Channel Information IE in the E-DCH Serving Cell Change Information Response IE in the RADIO LINK ADDITION RESPONSE message for any of the other E-DCH Radio Link in the DRNS Communication Context that have not been included in the *E-DCH FDD DL Control Channel Information* IE in *RL Information Response* IE.]

- [FDD - If the *Serving Cell Change CFN* IE is included in the RADIO LINK ADDITION REQUEST message, then the DRNS shall activate the resources that are allocated for the new serving E-DCH Radio Link at the next coming CFN with a value equal to the value requested by the SRNC, or earlier. In this case, in the new configuration the DRNS shall, if applicable, de-allocate the E-AGCH resources of the old Serving E-DCH Radio Link. The DRNS shall deactivate those resources at the next coming CFN with a value equal to the value requested by the SRNC.]

- [FDD- If the *Serving Cell Change CFN* IE is not included then the DRNS shall activate immediately the resources that are allocated for the new serving E-DCH Radio Link, and shall keep active the resources that are allocated for the previous serving E-DCH Radio Link.]

- [FDD - If the addition of the requested Serving E-DCH Radio Link was successful but the Serving E-DCH Radio Link change was unsuccessful, the DRNS shall indicate this in the *E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

[FDD - E-DPCH Handling:]

[FDD - If the RADIO LINK ADDITION REQUEST message includes an *E-DPCH Information* IE, the DRNS shall use the new parameters for the related resource allocation operations.]

[FDD - If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-TFCI Boost Information* IE, the DRNS shall use the information according to [10]. If the *E-TFCI Boost Information* IE is not present, the DRNS shall use the value "127" in the algorithm defined in [10].]

[FDD - If the *E-DPCH Information* IE includes the *E-TFCS Information* IE, the DRNS shall use the *E-TFCS Information* IE for the E-DCH when reserving resources for the uplink of the new configuration. The DRNS shall apply the new TFCS in the uplink of the new configuration. If the *E-TFCS Information* IE contains the *E-DCH Minimum Set E-TFCI Validity Indicator* IE the DRNS shall ignore the value in *E-DCH Minimum Set E-TFCI* IE. If the *E-DCH Minimum Set E-TFCI validity indicator* IE is absent DRNS shall use the value for the related resource allocation operation.]

[FDD - If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-DPDCH Power Interpolation* IE, the DRNS shall use the value to determine the applicable E-DPDCH power formula defined in [10]. If the *E-DPDCH Power Interpolation* IE is not present, the DRNS shall use the E-DPDCH power extrapolation formula defined in [10].]

[FDD - E-DCH Setup:]

[FDD - If the *E-DCH FDD Information* IE is present in the RADIO LINK ADDITION REQUEST message then:]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel Information* IE in the *E-DCH FDD Information* IE, then the DRNS shall use this information to optimise MAC-e scheduling decisions.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the DRNS shall use this information for the related resource allocation operation.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the DRNS shall use this information for the related resource allocation operation.]

- [FDD - If in the RADIO LINK ADDITION REQUEST message the E-DCH Grant Type is indicated as being "E-DCH Non-Scheduled Transmission Grant" for an E-DCH MAC-d flow the DRNS shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the H*ARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE, if included, for the related resource allocation operation.]

- [FDD - If in the RADIO LINK ADDITION REQUEST message the E-DCH Grant Type is indicated as being "E-DCH Scheduled Transmission Grant" for an E-DCH MAC-d flow the DRNS shall assume scheduled grants being configured for that E-DCH MAC-d flow.]

- [FDD - The DRNS may use the *Traffic Class* IE for a specific E-DCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. If *TrCH Source Statistics Descriptor* IE is present with the value "RRC" in the *E-DCH MAC-d Flows Information* IE, then the DRNC should ignore the *Traffic Class* IE.]

- [FDD - If the *TNL QoS* IE is included for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *Bundling Mode Indicator* IE for a E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information* IE and the *Bundling Mode Indicator* IE is set to "Bundling" and the *E-TTI* IE is set to "2ms", then the DRNS shall use the bundling mode for the E-DCH UL data frames for the related MAC-d flow, otherwise the DRNS shall use the non-bundling mode for the E-DCH UL data frames for the related MAC-d flow.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Maximum Bitrate* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Processing Overload Level* IE, then if the DRNS could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Reference Power Offset* IE, then the DRNS may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-AGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Power Offset for Scheduling Info* IE, then the DRNS shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [FDD – If the RADIO LINK ADDITION REQUEST message includes the *SixteenQAM UL Operation Indicator* IE, the DRNS shall activate/deactivate SixteenQAM UL Operation for the RL in accordance with the *SixteenQAM UL Operation Indicator* IE.]

    - [FDD – If SixteenQAM UL Operation is activated, then the DRNS shall base the handling of the Relative Grant signalling on Scheduling Grant Table 2 according to [41]. If SixteenQAM UL Operation is deactivated, then the DRNS shall base the handling of the Relative Grant signalling on Scheduling Grant Table 1 according to [41].]

[TDD - HS-DSCH Setup:]

[TDD - If the *HS-DSCH Information* IE is present in the RADIO LINK ADDITION REQUEST message, then:]

- [TDD - The DRNS shall setup the requested HS-PDSCH resources on the Serving HS-DSCH Radio Link indicated by the HS-PDSCH RL ID IE.]

- [TDD - The DRNC shall include the *HARQ Memory Partitioning* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE, then the DRNS shall use the indicated format in user plane frame structure for HS-DSCH channels [32] and MAC-hs [41].]

- [TDD - The DRNS may use the *Traffic Class* IE for a specific HS-DSCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. If *TrCH Source Statistics Descriptor* IE is present

with the value "RRC" in the *HS-DSCH MAC-d Flows Information* IE, then the DRNC should ignore the *Traffic Class* IE.]

- [TDD - The DRNC shall allocate an HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK ADDITION RESPONSE message.]

- [TDD - The DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of transport bearer for every HS-DSCH MAC-d flow being established.]

- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *HS-DSCH Information* IE for an HS-DSCH MAC-d flow, then the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the concerned HS-DSCH MAC-d flow. If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink between the DRNS and the SRNC for the related MAC-d flow.]

- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.]

- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.]

- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNC shall ignore the *SID* IE and *MAC-d PDU Size* IE in the *MAC-d PDU Size Index* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related HSDPA Priority Queue.]

- [TDD - The DRNC shall include the *HS-DSCH Initial Capacity Allocation* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message for every HS-DSCH MAC-d flow being established, if the DRNS allows the SRNC to start transmission of MAC-d PDUs before the DRNS has allocated capacity on user plane as described in [32]. If RADIO LINK ADDITION REQUEST message includes *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE set to "Flexible MAC-d PDU Size", then DRNC shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer recieved in RADIO LINK ADDITION REQUEST in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE.]

- [TDD - The DRNS shall allocate HS-SCCH parameters corresponding to the HS-DSCH and the DRNC shall include the [3.84Mcps TDD - *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [1.28Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Number of Supported Carriers* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information* IE, the Node B shall use this information to allocate HSDPA resources over multiple carriers for the UE.]

- [1.28Mcps TDD - For a multi-frequency cell, if the RADIO LINK ADDITION REQUEST message includes the *Multi-carrier HS-DSCH Physical Layer Category* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information* IE, the DRNS shall use this information together with the *HS-DSCH Physical Layer Category* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information* IE to allocate HSDPA resources over multiple carriers for the UE.]

[TDD - Intra-Node B Serving HS-DSCH Radio Link Change:]

[TDD - If the RADIO LINK ADDITION REQUEST message includes the *HS-PDSCH RL ID* IE, this indicates the new Serving HS-DSCH Radio Link:]

- [TDD - The DRNC shall include the *HARQ Memory Partitioning* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [TDD - The DRNS shall allocate HS-SCCH parameters corresponding to the HS-DSCH and the DRNC shall include the [3.84Mcps TDD - *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR* IE] [7.68Mcps TDD – *HS-SCCH Specific Information Response 7.68Mcps* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

[TDD - E-DCH:]

[3.84Mcps TDD, 1.28Mcps TDD and 7.68Mcps TDD – If the [3.84Mcps TDD - *E-DCH Information* IE][1.28Mcps TDD - *E-DCH Information 1.28Mcps* IE] [7.68Mcps TDD - *E-DCH Information 7.68Mcps* IE] is present in the RADIO LINK ADDITION REQUEST message:]

- [TDD – The DRNS shall setup the requested E-DCH resources on the Radio Link indicated by the *E-DCH Serving RL* IE.]

- [TDD – If the *TNL QoS* IE is included in the *E-DCH MAC-d Flows Information TDD* IE for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [TDD – If the RADIO LINK ADDITION REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *E-DCH MAC-d Flows Information TDD* IE for an E-DCH MAC-d flow, then the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the concerned E-DCH MAC-d flow.]

- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow in the *E-DCH MAC-d Flows Information TDD* IE, the DRNS shall use this information for the related resource allocation operation.]

- [TDD - If in the RADIO LINK ADDITION REQUEST message the *E-DCH Grant Type* IE in the *E-DCH MAC-d Flows Information TDD* IE is set to "Non-scheduled" for an E-DCH MAC-d flow the DRNS shall assume non-scheduled grants are configured for that E-DCH MAC-d flow.]

- [TDD - If in the RADIO LINK ADDITION REQUEST message the *E-DCH Grant Type* IE in the *E-DCH MAC-d Flows Information TDD* IE is set to "Scheduled" the DRNS shall assume that it may issue scheduled grants for the concerned E-DCH MAC-d flow.]

- [TDD – If the RADIO LINK ADDITION REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel Information* IE in the *E-DCH MAC-d Flows Information TDD* IE, then the DRNS shall use this information to optimise MAC-e scheduling decisions for the related queue.]

- [1.28Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *MAC-es Maximum Bit Rate LCR* IE in the *E-DCH Logical Channel Information* IE in the *E-DCH MAC-d Flows Information TDD* IE, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [3.84Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH TDD Maximum Bitrate* IE in the *E-DCH TDD Information* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [1.28Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Physical Layer Category LCR* IE or *Extended E-DCH Physical Layer Category LCR* IE in the *E-DCH TDD Information LCR* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [7.68Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH TDD Maximum Bitrate 7.68Mcps* IE in the *E-DCH TDD Information 7.68Mcps* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [3.84Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Processing Overload Level* IE in the *E-DCH TDD Information* IE, then if the DRNS could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of a processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [7.68Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Processing Overload Level* IE in the *E-DCH TDD Information 7.68Mcps* IE, then if the DRNS could not decode the E-

PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of a processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [1.28Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Processing Overload Level* IE in the *E-DCH TDD Information LCR* IE, then if the DRNS could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of a processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [TDD - The DRNS may use the *Traffic Class* IE for a specific E-DCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B.]

- [TDD – If the RADIO LINK ADDITION REQUEST message includes the [3.84Mcps TDD - *E-DCH TDD Information* IE][1.28Mcps TDD - *E-DCH TDD Information LCR* IE] in the *E-DCH MAC-d Flows Information TDD* IE, then the DRNS shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [1.28Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Maximum Number of Retransmission for Scheduling Info LCR* IE and the *E-DCH Retransmission timer for Scheduling Info LCR* IE in the *E-DCH TDD Information LCR* IE, then the DRNS shall use these parameters for the transmission of scheduling information without any MAC-d PDUs.]

- [3.84Mcps TDD - The DRNS shall determine any non-scheduled resource to be granted for the radio link, and return this in the *E-DCH Non-scheduled Grant Information TDD* IE in the *E-DCH Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [3.84Mcps TDD - The DRNS shall allocate an E-RNTI identifier and include the E-RNTI identifier and the E-AGCH(s) assigned in the *E-DCH Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [1.28Mcps TDD - The DRNS shall determine any non-scheduled resource to be granted for the radio link, and return this in the *E-DCH Non-scheduled Grant Information LCR TDD* IE in the *E-DCH Information Response 1.28Mcps* IE in the RADIO LINK ADDITION RESPONSE message.]

- [1.28Mcps TDD - The DRNS shall allocate an E-RNTI identifier and include the E-RNTI identifier, the E-AGCH(s) and E-HICH(s) assigned in the *E-DCH Information Response 1.28Mcps* IE in the RADIO LINK ADDITION RESPONSE message.]

- [7.684Mcps TDD - The DRNS shall determine any non-scheduled resource to be granted for the radio link, and return this in the *E-DCH Non-scheduled Grant Information 7.68Mcps TDD* IE in the *E-DCH Information Response 7.68Mcps* IE in the RADIO LINK ADDITION RESPONSE message.]

- [7.68Mcps TDD - The DRNS shall allocate an E-RNTI identifier and include the E-RNTI identifier and the E-AGCH(s) assigned in the *E-DCH Information Response 7.68Mcps* IE in the RADIO LINK ADDITION RESPONSE message.]

[3.84Mcps TDD - Intra-Node B Serving E-DCH Radio Link Change:]

[3.84Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Serving RL* IE, this indicates the new Serving E-DCH Radio Link:]

- [3.84Mcps TDD - The Node B shall allocate E-AGCH parameters corresponding to the E-DCH and include the *E-AGCH Specific Information Response* IE in the *E-DCH Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

[1.28Mcps TDD - Intra-Node B Serving E-DCH Radio Link Change:]

[1.28Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Serving RL* IE, this indicates the new Serving E-DCH Radio Link:]

- [1.28Mcps TDD - The Node B shall allocate E-AGCH parameters and E-HICH parameters corresponding to the E-DCH and include the *E-AGCH Specific Information Response* IE and the *E-HICH Specific Information Response* IE in the *E-DCH Information Response 1.28Mcps* IE in the RADIO LINK ADDITION RESPONSE message.]

[7.68Mcps TDD - Intra-Node B Serving E-DCH Radio Link Change:]

[7.68Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Serving RL* IE, this indicates the new Serving E-DCH Radio Link:]

- [7.68Mcps TDD - The Node B shall allocate E-AGCH parameters corresponding to the E-DCH and include the *E-AGCH Specific Information Response 7.68Mcps TDD* IE in the *E-DCH Information Response 7.68Mcps* IE in the RADIO LINK ADDITION RESPONSE message.]

Response message:

If all requested RLs are successfully added, the DRNC shall respond with a RADIO LINK ADDITION RESPONSE message.

After sending the RADIO LINK ADDITION RESPONSE message the DRNS shall continuously attempt to obtain UL synchronisation on the Uu interface.

For each RL for which the *Delayed Activation* IE is not included in the RADIO LINK ADDITION REQUEST message the DRNS shall:

- [FDD -start transmission on the DL DPDCH(s) of the new RL as specified in ref. [4].]

- [TDD - start transmission on the new RL immediately as specified in ref. [4].]

For each RL for which the *Delayed Activation* IE is included in the RADIO LINK ADDITION REQUEST message, the DRNS shall:

- if the *Delayed Activation* IE indicates "Separate Indication":

  - not start any DL transmission for the concerning RL on the Uu interface;

- if the *Delayed Activation* IE indicates "CFN":

  - [FDD - start transmission on the DL DPDCH(s) of the new RL as specified in ref. [4], however never before the CFN indicated in the *Activation CFN* IE.]

- [TDD - start transmission on the new RL at the CFN indicated in the *Activation CFN* IE as specified in ref. [4].]

[1.28 Mcps TDD – if the DRNS assigns one or more PLCCH sequence numbers to the radio link, then the PLCCH assignment(s) shall be sent to the SRNC in the RADIO LINK ADDITION RESPONSE message.]

8.3.2.3   Unsuccessful Operation
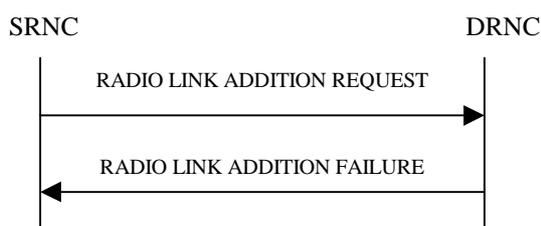
Figure 8: Radio Link Addition procedure: Unsuccessful Operation

If the establishment of at least one RL is unsuccessful, the DRNC shall respond with a RADIO LINK ADDITION FAILURE message. DRNC shall include in the RADIO LINK ADDITION FAILURE message a general *Cause* IE or a *Cause* IE for each failed radio link. The *Cause* IE indicates the reason for failure.

[FDD - If some RL(s) were established successfully, the DRNC shall indicate this in the RADIO LINK ADDITION FAILURE message in the same way as in the RADIO LINK ADDITION RESPONSE message.]

[FDD - If the requested Serving HS-DSCH Radio Link Change was successful, or if the addition of the requested serving HS-DSCH Radio Link was successful or existed already but the Serving HS-DSCH Radio Link change was unsuccessful, the DRNS shall indicate this in the *HS-DSCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION FAILURE message]

[FDD - If the requested Serving E-DCH Radio Link Change was successful, or if the addition of the requested serving E-DCH Radio Link was successful or existed already but the Serving E-DCH Radio Link change was unsuccessful, the DRNS shall indicate this in the *E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION FAILURE message.]

Typical cause values are:

Radio Network Layer Causes:

- DL Radio Resources not Available;

- UL Radio Resources not Available;

- Combining Resources not Available;

- Combining not Supported

- Cell not Available;

- [FDD - Requested Tx Diversity Mode not Supported;]

- Power Level not Supported;

- CM not Supported;

- Reconfiguration CFN not Elapsed;

- Number of DL Codes not Supported;

- Number of UL codes not Supported;

- [FDD - DPC mode change not Supported;]

- Cell reserved for operator use;

- Delayed Activation not supported;

- [FDD – F-DPCH not supported;]

- E-DCH not supported;

- [FDD - MIMO not supported;]

- [FDD - E-DCH TTI2ms not supported;]

- [FDD - Continuous Packet Connectivity DTX-DRX operation not available;]

- [FDD - Continuous Packet Connectivity UE DTX Cycle not available;]

- [FDD - MIMO not available;]

- [FDD – F-DPCH Slot Format operation not supported;]

- [FDD – E-DPCCH Power Boosting not supported.]

Transport Layer Causes:

- Transport Resource Unavailable.

Miscellaneous Causes:

- Control Processing Overload;

- HW Failure;

- Not enough User Plane Processing Resources.

8.3.2.4 Abnormal Conditions

If the RADIO LINK ADDITION REQUEST message includes a *C-ID* IE corresponding to a cell reserved for operator use and the Permanent NAS UE Identity is not available in the DRNC for the considered UE Context, the DRNC shall reject the procedure for this particular Radio Link and send the RADIO LINK ADDITION FAILURE message.

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Transmission Gap Pattern Sequence Status* IEs in the *Active Pattern Sequence Information* IE and it does not address exactly all ongoing compressed mode patterns the DRNS shall reject the Radio Link Addition procedure and shall respond with a RADIO LINK ADDITION FAILURE message with the *Cause* IE value "Invalid CM settings".]

[FDD - If the RADIO LINK ADDITION REQUEST message is used to establish a new RL without compressed mode when compressed mode is active for the existing RL(s) (as specified in subclause 8.3.2.2), and if at least one of the new RLs is to be established in a cell that has the same UARFCN (both UL and DL) as at least one cell with an already existing RL, the DRNS shall reject the Radio Link Addition procedure and shall respond with a RADIO LINK ADDITION FAILURE message with the cause value "Invalid CM settings".]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Individual" in the existing RL(s) and if the *DL Reference Power* IEs are included in the *RL Information* IE but the *DL Reference Power* IE is not present for each RL in the *RL Information* IE, the DRNC shall reject the Radio Link Addition procedure and shall respond with a RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *DL Reference Power* IEs in the *RL Information* IE but the power balancing is not active in the existing RL(s) or the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Common" in the existing RL(s), the DRNC shall reject the Radio Link Addition procedure and shall respond with a RADIO LINK ADDITION FAILURE message with the cause value "Power Balancing status not compatible".]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Enhanced Primary CPICH Ec/No* IE, but not the *Primary CPICH Ec/No* IE, then the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

If the RADIO LINK ADDITION REQUEST message includes the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE [FDD - or for an E-DCH MAC-d flow in *RL Specific E-DCH Information* IE] included in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "Must" [FDD – or the RL is combined with existing E-DCH RL which transport bearer is not established in the DRNS, the DRNC shall reject the Radio Link Addition procedure and respond with the RADIO LINK ADDITION FAILURE message.

If ALCAP is not used, if the RADIO LINK ADDITION REQUEST message does not include the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE nor *RL Specific E-DCH Information* IE in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "May", the DRNC shall reject the Radio Link Addition procedure and respond with the RADIO LINK ADDITION FAILURE message.

If ALCAP is not used, if the RADIO LINK ADDITION REQUEST message does not include the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "Must Not", the DRNC shall reject the Radio Link Addition procedure and respond with the RADIO LINK ADDITION FAILURE message.

If the RADIO LINK ADDITION REQUEST message includes the *Transport Layer Address* IE or the *Binding ID* IE, and not both are present for a transport bearer intended to be established, the DRNC shall reject the Radio Link Addition procedure and respond with the RADIO LINK ADDITION FAILURE message.

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *HS-DSCH Serving Cell Change Information* IE but not the *HS-DSCH FDD Information* IE and the UE Context is not configured for HS-DSCH, then the DRNS shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Serving Cell Change CFN* IE but neither the *Serving E-DCH RL* IE nor the *HS-DSCH Serving Cell Change Information* IE, then the DRNS shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Serving E-DCH RL* IE but the UE Context is not configured for E-DCH, then the DRNS shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the *E-DCH FDD Information* IE is present in the RADIO LINK ADDITION REQUEST message, but the *E-DPCH Information* IE is not present, then the DRNS shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH RL Indication* IE set to "E-DCH", but no *E-DCH FDD Information* IE, and the UE Context is not configured for E-DCH, then the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH FDD Information* IE but no *E-DCH RL Indication* IE set to "E-DCH", then the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[TDD - If the RADIO LINK ADDITION REQUEST message includes the *HS-PDSCH RL-ID* IE not equal to the *RL ID* IE, the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[TDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Serving RL* IE not equal to the *RL ID* IE, the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

If the RADIO LINK ADDITION REQUEST message contains the *HS-PDSCH RL ID* IE [FDD – in the *HS-DSCH Serving Cell Change Information* IE] and/or *Serving E-DCH RL* IE and if both HS-DSCH and E-DCH are configured in the DRNS but the Serving HS-DSCH Radio Link and the Serving E-DCH Radio Link are not in the same cell then the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.

[FDD - If the RADIO LINK ADDITION REQUEST message contains the *HS-DSCH Serving Cell Change Information* IE and the *E-DPCH Information* IE which includes the *HS-DSCH Configured Indicator* IE set as "HS-DSCH not configured" then the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

If the RADIO LINK ADDITION REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE [FDD - in the *HS-DSCH Serving Cell Change Information*] and the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE [FDD - in the *HS-DSCH Serving Cell Change Information*] has the value "Indexed MAC-d PDU Size", the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.

If the RADIO LINK ADDITION REQUEST message does not include the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE [FDD - in the *HS-DSCH Serving Cell Change Information*] and the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE [FDD - in the *HS-DSCH Serving Cell Change Information*] has the value "Flexible MAC-d PDU Size", the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.

[FDD – If the RADIO LINK ADDITION REQUEST message contains the *Transport Bearer Not Requested Indicator* IE for a DCH but the DCH is configured to be included as a part of the downlink CCTrCH, the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message contains the *MIMO Activation Indicator* IE and/or *Sixtyfour QAM Usage Allowed Indicator* IE set to "Allowed", but does not contain the *HS-DSCH MAC-d PDU Size Format* IE set to "Flexible MAC-d PDU Size", then the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD – If the RADIO LINK ADDITION REQUEST message contains the *Serving E-DCH RL ID* IE but contains the *Transport Bearer Not Requested Indicator* IE in the RL Specific E-DCH Information for the new Serving E-DCH RL or there is at least one E-DCH MAC-d flow which transport bearer was not configured in the existing E-DCH RL to be combined with the Serving E-DCH RL, the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE for a DCH or an E-DCH MAC-d Flow for a specific RL and the specific RL is combined with the existing RL which the transport bearer is established for the DCH or the E-DCH MAC-d Flow in DRNS, the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

8.3.3 Radio Link Deletion

8.3.3.1 General

The Radio Link Deletion procedure is used to release the resources in a DRNS for one or more established radio links towards a UE.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Radio Link Deletion procedure may be initiated by the SRNC at any time after establishing a Radio Link.

8.3.3.2 Successful Operation
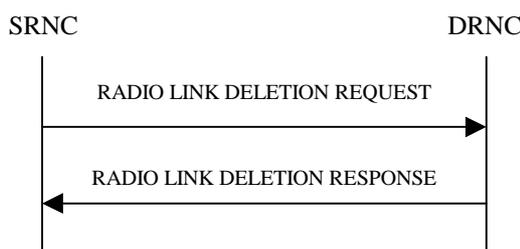
Figure 9: Radio Link Deletion procedure, Successful Operation

The procedure is initiated with a RADIO LINK DELETION REQUEST message sent from the SRNC to the DRNC.

Upon receipt of this message, the DRNS shall delete the radio link(s) identified by the *RL ID* IE(s) in the message, shall release all associated resources and shall respond to the SRNC with a RADIO LINK DELETION RESPONSE message.

If the radio link(s) to be deleted represent the last radio link(s) for the UE in the DRNS and if the UE is not using any common resources in the DRNS, then the DRNC shall release the UE Context.

[FDD - After deletion of the RL(s), the UL out-of-sync algorithm defined in ref. [10] shall for each of the remaining RL Set(s) use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE that are configured in the cells supporting the radio links of the RL Set. The UL in-sync algorithm defined in ref. [10] shall for each of the remaining RL Set(s) use the minimum value of the parameters N_INSYNC_IND that are configured in the cells supporting the radio links of the RL Set.]

8.3.3.3 Unsuccessful Operation

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8.3.3.4 Abnormal Conditions

If the RL indicated by the *RL ID* IE does not exist, the DRNC shall respond with the RADIO LINK DELETION RESPONSE message.

8.3.4 Synchronised Radio Link Reconfiguration Preparation

8.3.4.1 General

The Synchronised Radio Link Reconfiguration Preparation procedure is used to prepare a new configuration of Radio Link(s) related to one UE-UTRAN connection within a DRNS.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Synchronised Radio Link Reconfiguration Preparation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.4.2   Successful Operation
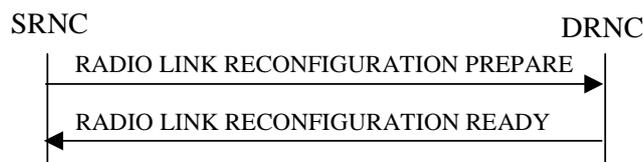
Figure 10: Synchronised Radio Link Reconfiguration Preparation procedure, Successful Operation

The Synchronised Radio Link Reconfiguration Preparation procedure is initiated by the SRNC by sending the RADIO LINK RECONFIGURATION PREPARE message to the DRNC.

Upon receipt, the DRNS shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Allowed Queuing Time* IE the DRNS may queue the request the time corresponding to the value of the *Allowed Queuing Time* IE before starting to execute the request.

The DRNS shall prioritise resource allocation for the RL(s) to be modified according to Annex A.

DCH Modification:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCHs To Modify* IEs, the DRNS shall treat them each as follows:

- If the *DCHs To Modify* IE includes multiple *DCH Specific Info* IEs then the DRNS shall treat the DCHs in the *DCHs To Modify* IE as a set of co-ordinated DCHs. The DRNS shall include these DCHs in the new configuration only if it can include all of them in the new configuration.

- If the *DCHs To Modify* IE includes the *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- If the *DCHs To Modify* IE includes the *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new ToAWS in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- If the *DCHs To Modify* IE includes the *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new ToAWE in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Frame Handling Priority* IE for a DCH to be modified, the DRNS should store this information for this DCH in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the DRNS once the new configuration has been activated.

- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Traffic Class* IE for a DCH to be modified, the DRNS should store this information for this DCH in the new configuration. The *Traffic Class* IE may be used to determine the transport bearer characteristics to apply between DRNC and Node B for the related DCH or set of co-ordinated DCHs. The DRNC should ignore the *Traffic Class* IE if the *TrCH Source Statistics Descriptor* IE for this DCH indicates the value "RRC".

- [FDD - If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH indicator* IE set to "Uplink DCH only", the DRNS shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.]

- [FDD - If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH indicator* IE set to " Downlink DCH only", the DRNS shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.]

- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Transport Format Set* IE for the UL of a DCH to be modified, the DRNS shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.

- If the *DCHs to Modify* IE includes the *TNL QoS* IE for a DCH or a set of co-ordinated DCHs to be modified and if ALCAP is not used, the DRNS may store this information for this DCH in the new configuration. The *TNL QoS* IE may be used to determine the transport bearer characteristics to apply in the uplink for the related DCH or set of co-ordinated DCHs.

- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Transport Format Set* IE for the DL of a DCH to be modified, the DRNS shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.

- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Allocation/Retention Priority* IE, the DRNS shall apply the new Allocation/Retention Priority to this DCH in the new configuration according to Annex A.

- [TDD - If the *DCHs To Modify* IE includes the *CCTrCH ID* IE for the UL, the DRNS shall map the DCH onto the referenced UL CCTrCH in the new configuration.]

- [TDD - If the *DCHs To Modify* IE includes the *CCTrCH ID* IE for the DL, the DRNS shall map the DCH onto the referenced DL CCTrCH in the new configuration.]

- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:

  - If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the uplink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate in the uplink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate.

  - If the *Guaranteed Rate Information* IE includes the *Guaranteed DL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the downlink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate in the downlink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the downlink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate.

DCH Addition:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCHs To Add* IEs, the DRNS shall treat them each as follows:

- The DRNS shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message and include these DCH in the new configuration.

- If the *DCH Information* IE includes a *DCHs To Add* IE with multiple *DCH Specific Info* IEs, the DRNS shall treat the DCHs in the *DCHs To Add* IE as a set of co-ordinated DCHs. The DRNS shall include these DCHs in the new configuration only if it can include all of them in the new configuration.

- If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Uplink DCH only", the DRNS shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.

- If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Downlink DCH only", the DRNS shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.

- [FDD - For each DCH which do not belong to a set of co-ordinated DCHs and which includes a *QE-Selector* IE set to "selected", the DRNS shall use the Transport channel BER from that DCH for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH, the DRNS shall use the Physical channel BER for the QE, ref. [4]. If the *QE-Selector* IE is set to "non-selected", the DRNS shall use the Physical channel BER for the QE in the UL data frames, ref. [4].]

- For a set of co-ordinated DCHs, the DRNS shall use the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" for the QE in the UL data frames, ref. [4]. [FDD - If no Transport channel BER is available for the selected DCH, the DRNS shall use the Physical channel BER for the QE, ref. [4]. If all DCHs have the *QE-Selector* IE set to "non-selected", the DRNS shall use the Physical channel BER for the QE, ref. [4].] [TDD - If no Transport channel BER is available for the selected DCH, the DRNS shall use 0 for the QE, ref. [4].]

- The DRNS should store the *Frame Handling Priority* IE received for a DCH to be added in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the Uu interface in congestion situations within the DRNS once the new configuration has been activated.

- If the *TNL QoS* IE is included for a DCH or a set of co-ordinated DCHs and if ALCAP is not used, the DRNS may use this information to determine the transport bearer characteristics to apply for the uplink for the related DCH or set of co-ordinated DCHs.

- The DRNS should store the *Traffic Class* IE received for a DCH to be added in the new configuration. The *Traffic Class* IE may be used to determine the transport bearer characteristics to apply between DRNC and Node B for the related DCH or set of co-ordinated DCHs. The DRNC should ignore the *Traffic Class* IE if the *TrCH Source Statistics Descriptor* IE indicates the value "RRC".

- The DRNS shall use the included *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be added as the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- The DRNS shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Startpoint in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- The DRNS shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Endpoint in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- [3.84Mcps TDD - The DRNC shall include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if at least one DSCH or USCH exists in the new configuration.]

- [1.28Mcps TDD - The DRNC shall include the *Secondary CCPCH Info TDD LCR* IE in the RADIO LINK RECONFIGURATION READY message if at least one DSCH or USCH exists in the new configuration.]

- [7.68Mcps TDD - The DRNC shall include the *Secondary CCPCH Info TDD 7.68Mcps* IE in the RADIO LINK RECONFIGURATION READY message if at least one DSCH or USCH exists in the new configuration.]

- If the *DCHs To Add* IE contains a *DCH Specific Info* IE which includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:

    - If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the uplink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate of the uplink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCHs To Add* IE does not include the *Guaranteed UL Rate* IE, the DRNS shall not limit the user rate of the uplink of the DCH.

    - If the *Guaranteed Rate Information* IE includes the *Guaranteed DL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the downlink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate of the downlink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the downlink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCHs To Add* IE does not include the *Guaranteed DL Rate* IE, the DRNS shall not limit the user rate of the downlink of the DCH.

- [TDD - The DRNS shall apply the *CCTrCH ID* IE (for the DL) in the Downlink of this DCH in the new configuration.]

- [TDD - The DRNS shall apply the *CCTrCH ID* IE (for the UL) in the Uplink of this DCH in the new configuration.]

DCH Deletion:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCH To Delete*, the DRNS shall not include the referenced DCHs in the new configuration.

If all of the DCHs belonging to a set of co-ordinated DCHs are requested to be deleted, the DRNS shall not include this set of co-ordinated DCHs in the new configuration.

Physical Channel Modification:

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an *UL DPCH Information* IE, the DRNS shall apply the parameters to the new configuration as follows:]

- [FDD - If the *UL DPCH Information* IE includes the *Uplink Scrambling Code* IE, the DRNS shall apply this Uplink Scrambling Code to the new configuration.]

- [FDD - If the *UL DPCH Information* IE includes the *Min UL Channelisation Code Length* IE, the DRNS shall apply the new Min UL Channelisation Code Length in the new configuration. The DRNS shall apply the contents of the *Max Number of UL DPDCHs* IE (if it is included) in the new configuration.]

- [FDD - If the *UL DPCH Information* IE includes the *TFCS* IE, the DRNS shall use the *TFCS* IE for the UL when reserving resources for the uplink of the new configuration. The DRNS shall apply the new TFCS in the uplink of the new configuration.]

- [FDD - If the *UL DPCH Information* IE includes the *UL DPCCH Slot Format* IE, the DRNS shall apply the new Uplink DPCCH *Slot Format* to the new configuration.]

- [FDD - If the *UL DPCH Information* IE includes the *UL SIR Target* IE, the DRNS shall use the value for the UL inner loop power control when the new configuration is being used.]

- [FDD - If the *UL DPCH Information* IE includes the *Puncture Limit* IE, the DRNS shall apply the value in the uplink of the new configuration.]

- [FDD - If the *UL DPCH Information* IE includes the *Diversity Mode* IE, the DRNS shall apply diversity according to the given value.]

- [FDD – If the *UL DPCH Information* IE includes the *UL DPDCH Indicator For E-DCH Operation* IE and it is set to "UL DPDCH not present", the UL DPDCH resources shall be removed from the configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes a *DL DPCH Information* IE and the concerned UE Context is configured to use F-DPCH in the downlink in the old configuration, the DRNS shall configure the concerned UE Context to use DPCH in the downlink in the new configuration. In this case, if at least one Transmission Gap Pattern Sequence is configured with an SF/2 downlink compressed mode method in the new configuration, the DRNC shall include the *Transmission Gap Pattern Sequence Scrambling Code Information* IE in the RADIO LINK RECONFIGURATION READY message indicating for each Channelisation Code whether the alternative scrambling code shall be used or not.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *DL DPCH Power Information* IE, the DRNS shall use the information contained in it for the power settings of the DL DPCH. In particular, if the received *Inner Loop DL PC Status* IE is set to "Active", the DRNS shall activate the inner loop DL power control for all RLs. If *Inner Loop DL PC Status* IE is set to "Inactive", the DRNS shall deactivate the inner loop DL power control for all RLs according to ref. [10]. Furthermore, the DRNC shall include the *DL Code Information* IE in the RADIO LINK RECONFIGURATION READY.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes a *DL DPCH Information* IE, the DRNS shall apply the parameters to the new configuration as follows:]

- [FDD - If the *DL DPCH Information* IE includes the *Number of DL Channelisation Codes* IE, the DRNS shall allocate given number of Downlink Channelisation Codes per Radio Link and apply the new Downlink Channelisation Code(s) to the new configuration. Each Downlink Channelisation Code allocated for the new

configuration shall be included in the RADIO LINK RECONFIGURATION READY message within the *DL Code Information* IE as a *FDD DL Channelisation Code Number* IE when sent to the SRNC. If some Transmission Gap Pattern sequences using "SF/2" method are already initialised in the DRNS, DRNC shall include the *Transmission Gap Pattern Sequence Scrambling Code Information* IE in the RADIO LINK RECONFIGURATION READY message in case the DRNS selects to change the Scrambling code change method for one or more DL Channelisation Code.]

- [FDD - When more than one DL DPDCH are assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to [8]. When *p* number of DL DPDCHs are assigned to each RL, the first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to "*PhCH number 1*", the second to "*PhCH number 2*", and so on until the *p*th to "*PhCH number p*".]

- [FDD - If the *DL DPCH Information* IE includes the *TFCS* IE, the DRNS shall use the *TFCS* IE for the DL when reserving resources for the downlink of the new configuration. The DRNS shall apply the new TFCS in the Downlink of the new configuration.]

- [FDD - If the *DL DPCH Information* IE includes the *DL DPCH Slot Format* IE, the DRNS shall apply the new slot format used in DPCH in DL.]

- [FDD - If the *DL DPCH Information* IE includes the *TFCI Signalling Mode* IE, the DRNS shall apply the new signalling mode of the TFCI.]

- [FDD - If the *DL DPCH Information* IE includes the *Multiplexing Position* IE, the DRNS shall apply the new parameter to define whether fixed or flexible positions of transport channels shall be used in the physical channel.]

- [FDD - If the *DL DPCH Information* IE includes the *Limited Power Increase* IE set to "Used", the DRNS shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control in the new configuration.]

- [FDD - If the *DL DPCH Information* IE includes the *Limited Power Increase* IE set to "Not Used", the DRNS shall not use Limited Power Increase for the inner loop DL power control in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *F-DPCH Information* IE, then:]

- [FDD – The DRNS shall configure the concerned UE Context to use F-DPCH in the downlink in the new configuration.]

- [FDD – If the *F-DPCH Information* IE includes the *F-DPCH Slot Format Support Request* IE, then the DRNS shall configure the concerned UE Context for F-DPCH Slot Format operation according to [8] and include the *F-DPCH Slot Format* IE in the RADIO LINK RECONFIGURATION READY message. If the *F-DPCH Information* IE includes the *F-DPCH Slot Format* IE, the DRNC may use the *F-DPCH Slot Format* IE to determine the F-DPCH slot format.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transmission Gap Pattern Sequence Information* IE, the DRNS shall store the new information about the Transmission Gap Pattern Sequences to be used in the new Compressed Mode Configuration. Any Transmission Gap Pattern Sequences already existing in the previous Compressed Mode Configuration are replaced by the new sequences once the new Compressed Mode Configuration has been activated or once the previous Compressed Mode Configuration has been deactivated. This new Compressed Mode Configuration shall be valid in the DRNS until the next Compressed Mode Configuration is configured in the DRNS or until the last Radio Link is deleted.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transmission Gap Pattern Sequence Information* IE and the *Downlink Compressed Mode Method* IE in one or more Transmission Gap Pattern Sequence within the *Transmission Gap Pattern Sequence Information* IE is set to "SF/2" and the UE Context is configured to use DPCH in the downlink in the new configuration, the DRNC shall include the *Transmission Gap Pattern Sequence Scrambling Code Information* IE in the RADIO LINK RECONFIGURATION READY message indicating for each Channelisation Code whether the alternative scrambling code shall be used or not.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an *E-DPCH Information* IE, the DRNS shall apply the parameters to the new configuration as follows:]

- [FDD - If the *E-DPCH Information* IE includes the *Maximum Set of E-DPDCHs* IE, the DRNS shall apply the contents of the Maximum Set in the new configuration.]

- [FDD - If the *E-DPCH Information* IE includes the *Puncture Limit* IE, the DRNS shall apply the value in the uplink of the new configuration]

- [FDD - If the *E-DPCH Information* IE includes the *E-TFCS Information* IE, the DRNS shall use the *E-TFCS Information* IE for the E-DCH when reserving resources for the uplink of the new configuration. The DRNS shall apply the new TFCS in the uplink of the new configuration. If the *E-TFCS Information* IE contains the *E-DCH Minimum Set E-TFCI Validity Indicator* IE the DRNS shall ignore the value in *E-DCH Minimum Set E-TFCI* IE. If the *E-DCH Minimum Set E-TFCI validity indicator* IE is absent DRNS shall use the value for the related resource allocation operation.]

- [FDD - If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-DPDCH Power Interpolation* IE, the DRNS shall use the value to determine the applicable E-DPDCH power formula defined in [10]. If the *E-DPDCH Power Interpolation* IE is not present, the DRNS shall use the E-DPDCH power extrapolation formula defined in [10] if the *E-DCH FDD Information* IE is included in the RADIO LINK RECONFIGURATION PREPARE message.]

- [FDD - If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-TFCI Boost Information* IE, the DRNS shall use the information according to [10]. If the *E-TFCI Boost Information* IE is not present, the DRNS shall use the value "127" in the algorithm defined in [10] if the *E-DCH FDD Information* IE is included in the RADIO LINK RECONFIGURATION PREPARE message.]

- [FDD - If the *E-DPCH Information* IE includes the *E-TTI* IE, the DRNS shall use the value when the new configuration is being used.]

- [FDD - If the *E-DPCH Information* IE includes the *E-DPCCH Power Offset* IE, the DRNS shall use the value when the new configuration is being used.]

- [FDD - If the *E-DPCH Information* IE includes the *E-RGCH 2-Index-Step* IE, the DRNS shall use the value when the new configuration is being used.]

- [FDD - If the *E-DPCH Information* IE includes the *E-RGCH 3-Index-Step* IE, the DRNS shall use the value when the new configuration is being used.]

- [FDD - If the *E-DPCH Information* IE includes the *E-DCH HARQ Info* IE, the DRNS shall use the value when the new configuration is being used.]

- [FDD - If the *E-DPCH Information* IE includes the *HS-DSCH Configured Indicator* IE, the DRNS shall use the value when the new configuration is being used.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity DTX-DRX Information* IE, then:]

- [FDD – The DRNS shall configure the concerned UE Context for Continuous Packet Connectivity DTX operation according to [10].]

- [FDD – If *DRX Information* IE is included in the *Continuous Packet Connectivity DTX-DRX Information* IE, then the DRNS shall configure the concerned UE Context for Continuous Packet Connectivity DRX operation according to [10].]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then:]

- [FDD - If the *UE DTX DRX Offset* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the DRNS shall apply the indicated Offset in *UE DTX DRX Cycle* IE in the new configuration.]

- [FDD - If the *Enabling Delay* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the DRNS shall use this value to determine the beginning of uplink transmission in the new configuration according to [10].]

- [FDD - If the *DTX Information To Modify* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the DRNS shall use this information to modify the indicated DTX Information parameter in the new configuration. If the choice of *DTX Information To Modify* IE is "Deactivate", then DRX should be deactivated together with DTX.]

- [FDD - If the *DRX Information To Modify* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the DRNS shall use this information to modify the indicated DRX Information in the new configuration.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity HS-SCCH less Information* IE, then:]

- [FDD – The DRNS shall configure the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE for Continuous Packet Connectivity HS-SCCH less operation according to [10].]

- [FDD – The DRNS shall allocate the HS-PDSCH codes needed for HS-SCCH less operation and include the *Continuous Packet Connectivity HS-SCCH less Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – If at least one of *HS-PDSCH Second Code Support* IE is set to "True", then the DRNC shall include *HS-PDSCH Second Code Index* IE in the RADIO LINK RECONFIGURATION READY message.]

[FDD- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity HS-SCCH less Deactivate Indicator* IE, then the DRNS shall deactive the Continuous Packet Connectivity HS-SCCH less operation for the HS-DSCH Radio Link.]

[TDD - UL/DL CCTrCH Modification]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *UL CCTrCH To Modify* IEs or *DL CCTrCH To Modify* IEs, then the DRNS shall treat them each as follows:]

- [TDD - If any of the *UL CCTrCH To Modify* IEs or *DL CCTrCH To Modify* IEs includes any of the *TFCS* IE, *TFCI coding* IE, *Puncture limit* IE, or *TPC CCTrCH ID* IEs the DRNS shall apply these as the new values, otherwise the previous values specified for this CCTrCH are still applicable.]

- [TDD - If any of the following listed DPCH information IEs are modified in the new prepared configuration, the DRNC shall include in the RADIO LINK RECONFIGURATION READY message the IEs indicating the new values: *Repetition Period* IE, *Repetition Length* IE, *TDD DPCH Offset* IE, [3.84Mcps TDD - *UL Timeslot Information* IE,] [1.28Mcps TDD - *UL Timeslot Information LCR* IE,] [7.68 Mcps TDD - *UL Timeslot Information 7.68 Mcps* IE,] [3.84Mcps TDD - *DL Timeslot Information* IE,] [1.28Mcps TDD - *DL Timeslot Information LCR* IE,] [7.68 Mcps TDD - *DL Timeslot Information 7.68 Mcps* IE,] [3.84Mcps TDD - *Midamble Shift And Burst Type* IE,] [1.28Mcps TDD - *Midamble Shift LCR* IE,] [7.68 Mcps TDD - *Midamble Shift And Burst Type 7.68 Mcps* IE,] *TFCI Presence* IE, [3.84Mcps TDD - *TDD Channelisation Code* IE,] [1.28Mcps TDD - and/or *TDD Channelisation Code LCR* IE,] [7.68 Mcps TDD - *TDD Channelisation Code 7.68 Mcps* IE,] [1.28Mcps TDD - *TDD UL DPCH Time Slot Format LCR* IE or *TDD DL DPCH Time Slot Format LCR* IE].]

- [1.28Mcps TDD - If the *UL CCTrCH To Modify* IE includes the *UL SIR Target* IE, the DRNS shall use the value for the UL inner loop power control according [12] and [22] in the new configuration.]

- [TDD - If any of the *DL CCTrCH To Modify* IEs includes any *TPC CCTrCH ID* IEs, the DRNS shall apply these as the new values, otherwise the previous values specified for this CCTrCH are still applicable.]

- [1.28Mcps TDD - If the *UL CCTrCH to Modify* IE includes the *TDD TPC Uplink Step Size* IE, the DRNS shall apply this value to the uplink TPC step size in the new configuration.]

- [TDD - If the *DL CCTrCH to Modify* IE includes the *TDD TPC Downlink Step Size* IE, the DRNS shall apply this value to the downlink TPC step size in the new configuration.]

- [1.28 Mcps TDD – if the DRNS modifies, deletes or grants a new PLCCH assignment(s) to the UL CCTrCH, then the resulting PLCCH assignment(s) shall be sent to the SRNC in the RADIO LINK RECONFIGURATION READY message.]

[TDD - UL/DL CCTrCH Addition]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *UL CCTrCH To Add* IEs or *DL CCTrCH To Add* IEs, the DRNS shall include this CCTrCH in the new configuration.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCHs to Add* IEs, the DRNC shall include in the RADIO LINK RECONFIGURATION READY message the DPCH information in [3.84Mcps TDD - *UL DPCH to be Added* IE/*DL DPCH to be Added* IEs] [1.28Mcps TDD - *UL DPCH to be Added LCR* IE/*DL DPCH*

to be Added LCR IEs] [7.68 Mcps TDD - *UL DPCH to be Added 7.68 Mcps* IE/*DL DPCH to be Added 7.68 Mcps* IEs]. [3.84Mcps TDD - If no UL DPCH is active before a reconfiguration which adds an UL DPCH, and if a valid Rx Timing Deviation measurement is known in DRNC, then the DRNC shall include the *Rx Timing Deviation* IE (or the *Rx Timing Deviation 3.84 Mcps Extended* IE if the cell containing the radio link is configured for extended timing advance) in the RADIO LINK RECONFIGURATION READY message]. [7.68 Mcps TDD - If no UL DPCH is active before a reconfiguration which adds an UL DPCH, and if a valid Rx Timing Deviation measurement is known in DRNC, then the DRNC shall include the *Rx Timing Deviation 7.68 Mcps* IE in the RADIO LINK RECONFIGURATION READY message].]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *TDD TPC Downlink Step Size* IE within a *DL CCTrCH To Add* IE, the DRNS shall set the TPC step size of that CCTrCH to that value, otherwise the DRNS shall use the same value as the lowest numbered DL CCTrCH in the current configuration.]

[1.28Mcps TDD - The DRNS shall use the *UL SIR Target* IE in the *UL CCTrCH To Add* IE as the UL SIR value for the inner loop power control for this CCTrCH according [12] and [22] in the new configuration.]

[TDD - If any of the *DL CCTrCH To Add* IEs includes any *TPC CCTrCH ID* IEs, the DRNS shall configure the identified UL CCTrCHs with TPC according to the parameters given in the message.]

[1.28Mcps TDD - If the *UL CCTrCH To Add* IE includes *TDD TPC Uplink Step Size* IE, the DRNS shall apply the uplink TPC step size in the new configuration.]

[1.28 Mcps TDD – if the DRNS grants a PLCCH assignment(s) to the UL CCTrCH, then the resulting PLCCH assignment(s) shall be sent to the SRNC in the RADIO LINK RECONFIGURATION READY message.]

[TDD - UL/DL CCTrCH Deletion]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *UL CCTrCH To Delete* IEs *or DL CCTrCH To Delete* IEs, the DRNS shall remove this CCTrCH in the new configuration, and the DRNC shall include in the RADIO LINK RECONFIGURATION READY message corresponding *UL DPCH to be Deleted* IEs and *DL DPCH to be Deleted* IEs.]

DL Power Control:

- [FDD - If the *RL Information* IE includes the *DL Reference Power* IEs and power balancing is active, DRNS shall update the reference power of the power balancing in the indicated RL(s), if updating of power balancing parameters by the RADIO LINK RECONFIGURATION PREPARE message is supported, when the new configuration has been activated, according to subclause 8.3.15, using the *DL Reference Power* IE. If the CFN modulo the value of the *Adjustment Period* IE is not equal to 0, the power balancing continues with the old reference power until the end of the current adjustment period, and the updated reference power shall be used from the next adjustment period.]

[FDD - If updating of power balancing parameters by the RADIO LINK RECONFIGURATION PREPARE message is supported by the DRNS, the DRNC shall include the *DL Power Balancing Updated Indicator* IE in the *RL Information Response* IE for each affected RL in the RADIO LINK RECONFIGURATION READY message.]

[TDD – DSCH Addition/Modification/Deletion:]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *DSCH To Add*, *DSCH To Modify* or *DSCH To Delete* IEs, then the DRNS shall use this information to add/modify/delete the indicated DSCH channels to/from the radio link, in the same way as the DCH info is used to add/modify/release DCHs.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *DSCH To Add* IE, then the DRNS shall use the *Allocation/Retention Priority* IE, *Scheduling Priority Indicator* IE and *TrCH Source Statistics Descriptor* IE to define a set of DSCH Priority classes each of which is associated with a set of supported MAC-c/sh SDU lengths.]

[TDD - The DRNC shall include in the RADIO LINK RECONFIGURATION READY message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each added DSCH.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *DSCH To Add* IE, then the DRNS may use the *Traffic Class* IE to determine the transport bearer characteristics to apply between DRNC and Node B for the related DSCHs.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *TNL QoS* IE in the *DSCH TDD Information* IE and if ALCAP is not used, the DRNS may use the *TNL QoS* IE to determine the transport bearer characteristics to apply in the uplink for the related DSCH.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *DSCH To Modify* IE, then the DRNS shall treat them each as follows:]

- [TDD - The DRNC shall include in the RADIO LINK RECONFIGURATION READY message both the *Transport Layer Address* IE and the *Binding ID* IE for any new transport bearer to be established for each modified DSCH.]

- [TDD - If the *DSCHs To Modify* IE includes the *CCTrCH ID* IE, then the DRNS shall map the DSCH onto the referenced DL CCTrCH.]

- [TDD - If the *DSCHs To Modify* IE includes any of the *Allocation/Retention Priority* IE, *Scheduling Priority Indicator* IE or *TrCH Source Statistics Descriptor* IE, the DNRS shall use them to update the set of DSCH Priority classes each of which is associated with a set of supported MAC-c/sh SDU lengths.]

- [TDD - If the *DSCHs To Modify* IE includes any of the *Transport Format Set* IE or *BLER* IE, the DRNS shall apply the parameters to the new configuration.]

- [TDD - If the *DSCHs To Modify* IE includes the *Traffic Class* IE, the DRNS may use this information to determine the transport bearer characteristics to apply between DRNC and Node B for the related DSCHs.]

- [TDD - If the *DSCHs To Modify* IE includes the *TNL QoS* IE and if ALCAP is not used, the DRNS may use the *TNL QoS* IE to determine the transport bearer characteristics to apply in the uplink for the related DSCH.]

[3.84 Mcps TDD - The DRNC shall include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if a DSCH is added and at least one DCH exists in the new configuration. The DRNC shall also include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

[1.28 Mcps TDD - The DRNC shall include the *Secondary CCPCH Info TDD LCR* IE in the RADIO LINK RECONFIGURATION READY message if a DSCH is added and at least one DCH exists in the new configuration. The DRNC shall also include the *Secondary CCPCH Info TDD LCR* IE in the RADIO LINK RECONFIGURATION READY message if the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

[7.68 Mcps TDD - The DRNC shall include the *Secondary CCPCH Info 7.68 Mcps TDD* IE in the RADIO LINK RECONFIGURATION READY message if a DSCH is added and at least one DCH exists in the new configuration. The DRNC shall also include the *Secondary CCPCH Info 7.68 Mcps TDD* IE in the RADIO LINK RECONFIGURATION READY message if the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

[TDD - The DRNC shall include the *DSCH Initial Window Size* IE in the RADIO LINK RECONFIGURATION READY message for each DSCH, if the DRNS allows the SRNC to start transmission of MAC-c/sh SDUs before the DRNS has allocated capacity on user plane as described in [32].]

[TDD USCH Addition/Modification/Deletion]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *USCH To Modify*, *USCH To Add* or *USCH To Delete* IEs, then the DRNS shall use this information to add/modify/delete the indicated USCH channels to/from the radio link, in the same way as the DCH info is used to add/modify/release DCHs.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *USCH To Add* IE, then, the DRNS shall use the *Allocation/Retention Priority* IE, *Scheduling Priority Indicator* IE and *TrCH Source Statistics Descriptor* IE to define a set of USCH Priority classes each of which is associated with a set of supported MAC-c/sh SDU lengths.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *USCH To Add* IE, then the DRNS may use the *Traffic Class* IE to determine the transport bearer characteristics to apply between DRNC and Node B for the related USCHs.]

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes any *USCH To Add* IE, if the *TNL QoS* IE is included and if ALCAP is not used, the DRNS may use the *TNL QoS* IE to determine the transport bearer characteristics to apply for the related USCHs.]

[TDD - The DRNC shall include in the RADIO LINK RECONFIGURATION READY message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each added USCH.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *USCH To Modify* IE, then the DRNS shall treat them each as follows:]

- [TDD - If the *USCH To Modify* IE includes any of the Allocation/Retention Priority IE, Scheduling Priority Indicator IE or TrCH Source Statistics Descriptor IE, the DNRS shall use them to update the set of USCH Priority classes.]

- [TDD - If the *USCH To Modify* IE includes any of the *CCTrCH ID* IE, *Transport Format Set* IE, *BLER* IE or *RB Info* IE, the DRNS shall apply the parameters to the new configuration.]

- [TDD - If the *USCHs To Modify* IE includes the *Traffic Class* IE, the DRNS may use this information to determine the transport bearer characteristics to apply between DRNC and Node B for the related USCHs.]

- [3.84Mcps TDD - The DRNC shall include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if a USCH is added and at least one DCH exists in the new configuration. The DRNC shall also include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

- [1.28Mcps TDD - The DRNC shall include the *Secondary CCPCH Info TDD LCR* IE in the RADIO LINK RECONFIGURATION READY message if a USCH is added and at least one DCH exists in the new configuration. The DRNC shall also include the *Secondary CCPCH Info TDD LCR* IE in the RADIO LINK RECONFIGURATION READY message if the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

- [7.68Mcps TDD - The DRNC shall include the *Secondary CCPCH Info 7.68Mcps TDD* IE in the RADIO LINK RECONFIGURATION READY message if a USCH is added and at least one DCH exists in the new configuration. The DRNC shall also include the *Secondary CCPCH Info 7.68Mcps TDD* IE in the RADIO LINK RECONFIGURATION READY message if the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

- [TDD – if the *TNL QoS* IE is included and if ALCAP is not used, the DRNS may use the *TNL QoS* IE to determine the transport bearer characteristics to apply for the related USCHs.]

- [TDD - The DRNC shall include in the RADIO LINK RECONFIGURATION READY message both the *Transport Layer Address* IE and the *Binding ID* IE for any new transport bearer to be established for each modified USCH.]

RL Information:

[FDD - If the *RL Information* IE includes the *DL DPCH Timing Adjustment* IE, the DRNS shall adjust the timing of the radio link accordingly in the new configuration. If the UE Context is configured to use F-DPCH in the downlink in the new configuration, the DRNC may include the *DL Code Information* IE in the RADIO LINK RECONFIGURATION READY message.]

HS-DSCH Setup:

If the *HS-DSCH Information* IE is present in the RADIO LINK RECONFIGURATION PREPARE message, then:

- The DRNS shall setup the requested HS-PDSCH resources on the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE.

- The DRNC shall include the *HARQ Memory Partitioning* IE in the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION READY message. [FDD – The *HARQ Memory Partitioning* IE shall either contain the *HARQ Memory Partitioning Information Extension For MIMO* IE or the *Number of Processes* IE set to a value higher than "8", if the *MIMO Activation Indicator* IE is included in the *HS-DSCH Information* IE.]

- The DRNC shall allocate an HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION READY message.

- The DRNS may use the *Traffic Class* IE for a specific HS-DSCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. If *TrCH Source Statistics Descriptor* IE is present with the value "RRC" in the *HS-DSCH MAC-d Flows Information* IE, then the DRNC should ignore the *Traffic Class* IE.

- If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink between the DRNS and the SRNC for the related MAC-d flow.

- If fields are to be included in the User Plane by the SRNC to handle TNL Congestion Control for HSDPA in the DRNS, then the DRNC shall include the *User Plane Congestion Fields Inclusion* IE in the *HS-DSCH Information Response* IE.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-hs Guaranteed Bit Rate* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall ignore the *SID* IE and *MAC-d PDU Size* IE in the *MAC-d PDU Size Index* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related HSDPA Priority Queue.

- The DRNC shall include the *HS-DSCH Initial Capacity Allocation* IE in the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION READY message for every HS-DSCH MAC-d flow being established, if the DRNS allows the SRNC to start transmission of MAC-d PDUs before the DRNS has allocated capacity on user plane as described in [32] If RADIO LINK RECONFIGURATION PREPARE message includes *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE set to "Flexible MAC-d PDU Size", then DRNC shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer recieved in RADIO LINK RECONFIGURATION PREPARE in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE.

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-SCCH Power Offset* IE in the *HS-DSCH Information* IE, then the DRNS may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]

- [FDD - The DRNC shall include the *Measurement Power Offset* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD - The DRNS shall allocate HS-SCCH codes corresponding to the HS-DSCH and the DRNC shall include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [TDD - The DRNS shall allocate HS-SCCH parameters corresponding to the HS-DSCH and the DRNC shall include the [3.84Mcps TDD - *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR* IE] [7.68 Mcps TDD - *HS-SCCH Specific Information Response 7.68 Mcps* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD - The DRNC shall include the *HS-PDSCH And HS-SCCH Scrambling Code* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information* IE, then the DRNS shall use the indicated HARQ Preamble Mode as described

in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the DRNC shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message. If the *HARQ Preamble Mode* IE is not included or if the mode 0 is applied, then the DRNC shall not include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE, then the DRNS shall use the indicated format in user plane frame structure for HS-DSCH channels [32] and MAC-hs [41].

- [FDD - If the *MIMO Activation Indicator* IE is included in the *HS-DSCH FDD Information* IE, then]

  - [FDD - The DRNS shall activate the MIMO mode for the HS-DSCH Radio Link.]

  - [FDD – The DRNS shall decide the pilot configuration and the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE, then the DRNS may if the value is set to "allowed" use 64 QAM for the HS-DSCH Radio Link, and the DRNS shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE with value set to "not allowed", then the DRNS shall not use use 64 QAM for the HS-DSCH Radio Link.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH MAC-d PDU Size Format* IE set to "Flexible MAC-d PDU Size" and if Sixtyfour QAM will not be used, the DRNS shall include the *HS-DSCH TB Size Table Indicator* IE in the RADIO LINK RECONFIGURATION READY message if it decides to use the octet aligned table defined in [41] for HS-DSCH Transport Block Size signalling.]

- [1.28Mcps TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Number of Supported Carriers* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information* IE, the DRNS shall use this information to allocate HSDPA resources over multiple carriers for the UE.]

- [1.28Mcps TDD - For a multi-frequency cell, if the RADIO LINK RECONFIGURATION PREPARE message includes the *Multi-carrier HS-DSCH Physical Layer Category* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information* IE, the DRNS shall use this information together with the *HS-DSCH Physical Layer Category* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information* IE to allocate HSDPA resources over multiple carriers for the UE.]

Intra-DRNS Serving HS-DSCH Radio Link Change:

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-PDSCH RL ID* IE, this indicates the new Serving HS-DSCH Radio Link:

- The DRNS shall release the HS-PDSCH resources on the old Serving HS-DSCH Radio Link and setup the HS-PDSCH resources on the new Serving HS-DSCH Radio Link.

- The DRNC may include the *HARQ Memory Partitioning* IE in the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION READY message. [FDD – The *HARQ Memory Partitioning* IE may contain the *HARQ Memory Partitioning Information Extension For MIMO* IE.]

- If fields are to be included in the User Plane by the SRNC to handle TNL Congestion Control for HSDPA in the DRNS, then the DRNC shall include the *User Plane Congestion Fields Inclusion* IE in the *HS-DSCH Information Response* IE.

- The DRNC shall allocate a new HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION READY message.

- If a reset of the MAC-hs is not required the DRNS shall include the *MAC-hs Reset Indicator* IE in the RADIO LINK RECONFIGURATION READY message.

- [FDD - The DRNC shall include the *Measurement Power Offset* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD - The DRNS shall allocate HS-SCCH codes corresponding to the HS-DSCH and the DRNC shall include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [TDD - The DRNS shall allocate HS-SCCH parameters corresponding to the HS-DSCH and the DRNC shall include the [3.84Mcps TDD - *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR* IE] [7.68 Mcps TDD - *HS-SCCH Specific Information Response 7.68 Mcps* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [TDD - The DRNC shall include the [3.84 Mcps TDD - *HS-PDSCH Timeslot Specific Information* IE] [1.28 Mcps TDD - *HS-PDSCH Timeslot Specific Information LCR* IE] [7.68 Mcps TDD - *HS-PDSCH Timeslot Specific Information 7.68 Mcps* IE] in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD - The DRNC shall include the *HS-PDSCH And HS-SCCH Scrambling Code* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- The DRNC may include the *Transport Layer Address* IE and the *Binding ID* IE for HS-DSCH MAC-d flow in the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION READY message.

- If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink between the DRNS and the SRNC for the related MAC-d flow.

HS-DSCH Modification:

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH Information To Modify* IE, then:

- The DRNC shall include the *HS-DSCH Initial Capacity Allocation* IE for each HS-DSCH MAC-d flow being modified for which the establishment of one or several new Priority Queues was requested, if the DRNS allows the SRNC to start the transmission of MAC-d PDUs for the Priority Queue(s) being established before the DRNS has allocated capacity on user plane as described in [32]. If RADIO LINK RECONFIGURATION PREPARE message includes *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information To Modify* IE set to "Flexible MAC-d PDU Size", then DRNC shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer recieved in RADIO LINK RECONFIGURATION PREPARE in the *HS-DSCH Information To Modify* IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Traffic Class* IE in the *HS-DSCH Information To Modify* IE for a specific HS-DSCH MAC-d flow, the DRNS may use this information to determine the transport bearer characteristics to apply between DRNC and Node B. The DRNC should ignore the *Traffic Class* IE if the *TrCH Source Statistics Descriptor* IE for this specific HS-DSCH MAC-d flow indicates the value "RRC".

- If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink between the DRNS and the SRNC for the related MAC-d flow.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-hs Guaranteed Bit Rate* IE in the *HS-DSCH Information To Modify* IE, the DRNS shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH Information To Modify* IE, then the DRNS shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH Information To Modify* IE, then the DRNS shall ignore the

> *SID* IE and *MAC-d PDU Size* IE in the *MAC-d PDU Size Index* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-hs Window Size* IE or *T1* IE in the *HS-DSCH Information To Modify* IE, then the DRNS shall use the indicated values in the new configuration for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-d PDU Size Index* IE in the *Modify Priority Queue* choice, the DRNS shall delete the previous list of MAC-d PDU Size Index values for the related HSDPA Priority Queue and use the MAC-d PDU Size Index values indicated in the *MAC-d PDU Size Index* IE in the new configuration.

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *CQI Feedback Cycle k* IE, the *CQI Repetition Factor* IE, the *ACK-NACK Repetition Factor* IE, the *ACK Power Offset* IE, the *NACK Power Offset* IE or the *CQI Power Offset* IE in the *HS-DSCH Information To Modify* IE, then the DRNS shall use the indicated CQI Feedback Cycle k value, the CQI Repetition Factor or the ACK-NACK Repetition Factor, ACK Power Offset, the NACK Power Offset or the CQI Power Offset in the new configuration.]

- [FDD - If the *HS-SCCH Power Offset* IE is included in the *HS-DSCH Information To Modify* IE, the DRNS may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]

- [TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *TDD ACK NACK Power Offset* IE in the *HS-DSCH Information To Modify* IE, the DRNS shall use the indicated power offset in the new configuration.]

- [FDD - If the *HS-DSCH Information To Modify* IE includes the *HS-SCCH Code Change Grant* IE, then the DRNS may modify the HS-SCCH codes corresponding to the HS-DSCH. The DRNC shall then report the codes which are used in the new configuration specified in the *HS-SCCH Specific Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD - If the *HS-DSCH Information To Modify* IE includes the *HS-PDSCH Code Change Grant* IE, then the DRNS may modify the HS-PDSCH codes corresponding to the HS-DSCH. The DRNC shall then report the codes which are used in the new configuration specified in the *Continuous Packet Connectivity HS-SCCH less Information Response* IE in the RADIO LINK RECONFIGURATION READY message. If the concerned DRNS is not in Continuous Packet Connectivity HS-SCCH less mode, the SRNC shall not include the *HS-PDSCH Code Change Grant* IE in the *HS-DSCH Information To Modify* IE.]

- [TDD - If the *HS-DSCH Information To Modify* IE includes the *HS-SCCH Code Change Grant* IE, then the DRNS may modify the HS-SCCH parameters corresponding to the HS-DSCH. The DRNC shall then report the values for the parameters which are used in the new configuration specified in the [3.84Mcps TDD - *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR* IE] [7.68 Mcps TDD - *HS-SCCH Specific Information Response 7.68 Mcps* IE] in the RADIO LINK RECONFIGURATION READY message.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information To Modify* IE, then the Node B shall use the indicated HARQ Preamble Mode in the new configuration as described in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the DRNC shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message. If the *HARQ Preamble Mode* IE is not included or if the mode 0 is applied, then the DRNC shall not include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information To Modify* IE, then the DRNS shall use, in the new configuration, the indicated format in user plane frame structure for HS-DSCH channels [32] and MAC-hs [41].

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH Physical Layer Category* IE in the *HS-DSCH Information To Modify* IE, the DRNS shall use this information in the new configuration.]

- [FDD - If the *MIMO Mode Indicator* IE is included in the *HS-DSCH Information To Modify* IE, then]

- - [FDD - The DRNS shall activate/deactivate the MIMO mode for the HS-DSCH Radio Link in the new configuration in accordance with the *MIMO Mode Indicator* IE.]

  - [FDD - If the *MIMO Mode Indicator* IE is set to "Activate", then the DRNS shall decide the pilot configuration and the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD - The DRNC may include the *HARQ Memory Partitioning* IE in the RADIO LINK RECONFIGURATION READY message. The *HARQ Memory Partitioning* IE may contain the *HARQ Memory Partitioning Information Extension For MIMO* IE.]

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH Information To Modify* IE, then the DRNS may if the value is set to "allowed" use 64 QAM for the HS-DSCH Radio Link, and the DRNS shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH Information To Modify* IE with value set to "not allowed", then the DRNS shall not use 64 QAM for the HS-DSCH Radio Link.]

- [FDD - If MAC-ehs is applied in the new configuration, and if Sixtyfour QAM will not be used, the DRNS shall include the *HS-DSCH TB Size Table Indicator* IE in the RADIO LINK RECONFIGURATION READY message if it decides to use the octet aligned table defined in [41] for HS-DSCH Transport Block Size signalling.]

- [1.28Mcps TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Number of Supported Carriers* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information To Modify* IE, the DRNS shall use this information to allocate HSDPA resources over multiple carriers for the UE.]

- [1.28Mcps TDD - For a multi-frequency cell, if the RADIO LINK RECONFIGURATION PREPARE message includes the *Multi-carrier HS-DSCH Physical Layer Category* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information To Modify* IE, the DRNS shall use this information together with the *HS-DSCH Physical Layer Category* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information To Modify* IE to allocate HSDPA resources over multiple carriers for the UE.]

HS-DSCH MAC-d Flow Addition/Deletion:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *HS-DSCH MAC-d Flows To Add* or *HS-DSCH MAC-d Flows To Delete* IEs, then the DRNS shall use this information to add/delete the indicated HS-DSCH MAC-d flows on the Serving HS-DSCH Radio Link. When an HS-DSCH MAC-d flow is deleted, all its associated Priority Queues shall also be removed.

If the RADIO LINK RECONFIGURATION PREPARE message includes an *HS-DSCH MAC-d Flows To Delete* IE requesting the deletion of all remaining HS-DSCH MAC-d flows for the UE Context, then the DRNC shall delete the HS-DSCH configuration from the UE Context and release the HS-PDSCH resources.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH MAC-d Flows To Add* IE, then:

- The DRNS may use the *Traffic Class* IE for a specific HS-DSCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. If *TrCH Source Statistics Descriptor* IE is present with the value "RRC" in the *HS-DSCH MAC-d Flows Information* IE, then the DRNC should ignore the *Traffic Class* IE.

- If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink between the DRNS and the SRNC for the related MAC-d flow.

- The DRNC shall include the *HS-DSH Initial Capacity Allocation* IE in the RADIO LINK RECONFIGURATION READY message for every HS-DSCH MAC-d flow being added, if the DRNS allows the SRNC to start transmission of MAC-d PDUs before the DRNS has allocated capacity on user plane as described in [32]. If the UE context is configured to use the "Flexible MAC-d PDU Size" format for the HS-DSCH, then DRNC shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer recieved in RADIO LINK RECONFIGURATION PREPARE message in the *HS-DSCH*

MAC-d Flows To Add IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-hs Guaranteed Bit Rate* IE in the *HS-DSCH MAC-d Flows To Add* IE, the DRNS shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows To Add* IE, then the DRNS shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows To Add* IE, then the DRNC shall ignore the *SID* IE and *MAC-d PDU Size* IE in the *MAC-d PDU Size Index* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related HSDPA Priority Queue.

- The DRNC may include the *HARQ Memory Partitioning* IE in the RADIO LINK RECONFIGURATION READY message. [FDD – The *HARQ Memory Partitioning* IE may contain the *HARQ Memory Partitioning Information Extension For MIMO* IE.]

[FDD - E-DCH Setup:]

[FDD - If the *E-DCH FDD Information* IE is present in the RADIO LINK RECONFIGURATION PREPARE message then:]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel Information* IE in the *E-DCH FDD Information* IE, then the DRNS shall use this information to optimise MAC-e scheduling decisions.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the DRNS shall use this information for the related resource allocation operation.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the DRNS shall use this information for the related resource allocation operation.]

- [FDD - If in the RADIO LINK RECONFIGURATION PREPARE message the E-DCH Grant Type is indicated as being "E-DCH Non-Scheduled Transmission Grant" for an E-DCH MAC-d flow the DRNS shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the H*ARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE, if included, for the related resource allocation operation.]

- [FDD - If in the RADIO LINK RECONFIGURATION PREPARE message the E-DCH Grant Type is indicated as being "E-DCH Scheduled Transmission Grant" for an E-DCH MAC-d flow the DRNS shall assume scheduled grants being configured for that E-DCH MAC-d flow.]

- [FDD - The DRNS may use the *Traffic Class* IE for a specific E-DCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. If *TrCH Source Statistics Descriptor* IE is present with the value "RRC" in the *E-DCH MAC-d Flows Information* IE, then the DRNC should ignore the *Traffic Class* IE.]

- [FDD - If the *TNL QoS* IE is included for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Bundling Mode Indicator* IE for a E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information* IE and the *Bundling Mode Indicator* IE is set to "Bundling" and the *E-TTI* IE is set to "2ms", then the DRNS shall use the bundling mode for the E-DCH UL data frames for the related MAC-d flow, otherwise the DRNS shall use the non-bundling mode for the E-DCH UL data frames for the related MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Maximum Bitrate* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Processing Overload Level* IE, then if the DRNS could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH ReferencePower Offset* IE, then the DRNS may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Power Offset for Scheduling Info* IE, then the DRNS shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-AGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *SixteenQAM UL Operation Indicator* IE, the DRNS shall activate/deactivate SixteenQAM UL Operation for the RL in accordance with the *SixteenQAM UL Operation Indicator* IE.]

  - [FDD – If SixteenQAM UL Operation is activated, then the DRNS shall base the handling of the Relative Grant signalling on Scheduling Grant Table 2 according to [41]. If SixteenQAM UL Operation is deactivated, then the DRNS shall base the handling of the Relative Grant signalling on Scheduling Grant Table 1 according to [41].]

[FDD – E-DCH Radio Link Handling:]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH RL Indication* IE in the *RL Information* IE:]

- [FDD - The DRNC shall setup the E-DCH resources, as requested or as configured in the UE context, on the Radio Links indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]

- [FDD - The DRNC may include the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE and shall include the *E-RGCH/E-HICH Channelisation Code* IE and the corresponding *E-HICH Signature Sequence* IE and the DRNC may include the corresponding *E-RGCH Signature Sequence* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION READY message for every RL indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]

- [FDD - The DRNC shall remove the E-DCH resources, if any, on the Radio Links, that are indicated by the *E-DCH RL Indication* IE set to "Non E-DCH", in the *RL Information* IE.]

- [FDD - For each RL for which the *E-DCH RL Indication* IE is set to "E-DCH", and which has or can have a common generation of E-RGCH information with another RL (current or future) when the DRNS would contain the E-DCH serving RL, the DRNS shall include the *E-DCH RL Set ID* IE in the RADIO LINK RECONFIGURATION READY message. The value of the *E-DCH RL Set ID* IE shall allow the SRNC to identify the E-DCH RLs that have or can have a common generation of E-RGCH information.]

[FDD - Serving E-DCH Radio Link Change:]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Serving E-DCH RL ID* IE, this indicates the new Serving E-DCH Radio Link:]

- [FDD - If the old Serving E-DCH RL is within this DRNS, the DRNS shall de-allocate the E-AGCH resources of the old Serving E-DCH Radio Link at the activation of the new configuration.]

- [FDD - If the new Serving E-DCH RL is within this DRNS:]

    - [FDD - the DRNS shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the new Serving E-DCH Radio Link and include these E-RNTI identifiers along with the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the *RL Information Response* IE for the indicated RL in the RADIO LINK RECONFIGURATION READY message.]

    - [FDD - The DRNS may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the RADIO LINK RECONFIGURATION READY message for the initial grant for the new serving E-DCH RL.]

    - [FDD - If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the DRNS shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

    - [FDD - If a serving cell change is performed the RADIO LINK RECONFIGURATION READY message may contain invalid data (see 9.2.2.4C).]

    - [FDD - The DRNS may include the *Default Serving Grant in DTX Cycle 2* IE in the RADIO LINK RECONFIGURATION READY message for the new serving E-DCH RL.]

- [FDD – The DRNS may include the *E-RGCH/E-HICH Channelisation Code* IE and/or the *E-HICH Signature Sequence* IE and/or the *E-RGCH Signature Sequence* IE or may alternatively include the *E-RGCH Release Indicator* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION READY message for every E-DCH Radio Links in the DRNS.]

- [FDD - If the DRNS has no valid data for the *E-RGCH and E-HICH Channelisation Code* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION READY message, then it shall insert the *E-RGCH and E-HICH Channelisation Code Validity Indicator* IE in the *E-DCH FDD DL Control Channel Information* IE, to indicate that the *E-RGCH and E-HICH Channelisation Code* IE contains invalid data.]

[FDD - E-DCH Modification:]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH FDD Information To Modify* IE, then:]

- [FDD - If the *E-DCH FDD Information To Modify* IE contains a *E-DCH MAC-d Flow Specific Information* IE which includes the *Allocation/Retention Priority* IE, the DRNS shall apply the new Allocation/Retention Priority to this E-DCH in the new configuration according to Annex A.]

- [FDD - If the *TNL QoS* IE is included for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [FDD -If the *Traffic Class* IE is included for an E-DCH MAC-d flow then the DRNS may use the *Traffic Class* IE for a specific E-DCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. The DRNC should ignore the *Traffic Class* IE if the *TrCH Source Statistics Descriptor* IE for this specific E-DCH MAC-d flow indicates the value "RRC".]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Data Description Indicator* IE, the DRNC shall use the DDI values indicated in the *Data Description Indicator* IE in the new configuration.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH FDD Information To Modify* IE, the DRNS shall use this information to optimise MAC-e scheduling decisions.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Maximum Number of Retransmissions for E-DCH* IE for an E-DCH MAC-d flow in the *E-DCH FDD Information To Modify* IE, then the DRNS shall use this information to report if the maximum number of retransmissions has been exceeded.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH HARQ Power Offset FDD* IE in the *E-DCH FDD Information To Modify* IE for an E-DCH MAC-d flow the DRNS shall use this information for calculating the unquantised gain factor for an E-TFC ($\beta_{ed,j,uq}$)as defined in [10].]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the DRNS shall use this information for the related resource allocation operation.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the E-DCH Grant Type and it is indicated as being "E-DCH Non-Scheduled Transmission Grant" for an E-DCH MAC-d flow the DRNS shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the H*ARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE, if included, for the related resource allocation operation.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the E-DCH Grant Type and it is indicated as being "E-DCH Scheduled Transmission Grant" for an E-DCH MAC-d flow the DRNS shall assume scheduled grants being configured for that E-DCH MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Logical Channel To Add* or *E-DCH Logical Channel To Delete* IEs, the DRNS shall use this information to add/delete the indicated logical channels. When an logical channel is deleted, all its associated configuration data shall also removed.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Logical Channel To Modify* IE, the DRNS shall use this information to modify the indicated logical channels:]

    - [FDD - If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Priority Indicator* IE, the DRNS shall apply the values in the new configuration.]

    - [FDD - If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Information* IE, the DRNS shall apply the values in the new configuration.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Bundling Mode Indicator* IE for an E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information To Modify* IE and the *Bundling Mode Indicator* IE is set to "Bundling" and the *E-TTI* IE is set to "2ms", then the DRNS shall use the bundling mode for the E-DCH UL data frames for the related MAC-d flow, otherwise the DRNS shall use the non-bundling mode for the E-DCH UL data frames for the related MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the DRNS shall use this information for the related resource allocation operation.]

- [FDD - If the E-DCH serving RL is in this DRNS, the DRNS may choose to change the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission. In this case the DRNS shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Maximum Bitrate* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Processing Overload Level* IE, then if the DRNS could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH ReferencePower Offset* IE, then the DRNS may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Power Offset for Scheduling Info* IE, then the DRNS shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-AGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-e Reset Indicator* IE in the *E-DCH FDD Information To Modify* IE, then the DRNS shall use this value to determine whether MAC-e Reset is performed in the UE for sending the HARQ Failure Indication.]

- [FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *SixteenQAM UL Operation Indicator* IE in the *E-DCH FDD Information To Modify* IE, the DRNS shall activate/deactivate SixteenQAM UL Operation for the RL in accordance with the *SixteenQAM UL Operation Indicator* IE]

    - [FDD – If SixteenQAM UL Operation is activated, then the DRNS shall base the handling of the Relative Grant signalling on Scheduling Grant Table 2 according to [41]. If SixteenQAM UL Operation is deactivated, then the DRNS shall base the handling of the Relative Grant signalling on Scheduling Grant Table 1 according to [41].]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH DL Control Channel Grant Information* IE in the *E-DCH FDD Information To Modify* IE, the DRNS may modify E-AGCH Channelisation Code, E-RGCH/E-HICH Channelisation Code, E-RGCH Signature Sequence and/or E-HICH Signature Sequence for the E-DCH RL indicated by the *E-DCH RL ID* IE. The DRNC shall then report the modified configuration which is used in the new configuration specified in the *E-DCH FDD DL Control Channel Information* IE for each E-DCH RL in the RADIO LINK RECONFIGURATION READY message.]

[FDD - E-DCH MAC-d Flow Addition:]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an *E-DCH MAC-d Flows To Add* IE, then the DRNS shall use this information to add the indicated E-DCH MAC-d flows.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH MAC-d Flows To Add* IE, then:]

    - [FDD - The DRNS may use the *Traffic Class* IE for a specific E-DCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. If *TrCH Source Statistics Descriptor* IE is present with the value "RRC" in the *E-DCH MAC-d Flows Information* IE, then the DRNC should ignore the *Traffic Class* IE.]

    - [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel Information IE* in the *E-DCH MAC-d Flows To Add* IE, the DRNS shall use this information to optimise MAC-e scheduling decisions.]

[FDD - E-DCH MAC-d Flow Deletion:]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an E-DCH *MAC-d Flows To Delete* IEs, then the DRNS shall use this information to delete the indicated E-DCH MAC-d flows. When an E-DCH MAC-d flow is deleted, all its associated configuration shall also be removed.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an *E-DCH MAC-d Flows To Delete* IE requesting the deletion of all remaining E-DCH MAC-d flows for the UE Context, then the DRNC shall delete the E-DCH configuration from the UE Context and release the E-DCH resources.]

[1.28Mcps TDD - Uplink Synchronisation Parameters LCR:]

[1.28Mcps TDD -If the *Uplink Synchronisation Parameters LCR* IE is present, the DRNC shall use the indicated values of *Uplink synchronisation stepsize* IE and *Uplink synchronisation frequency* IE when evaluating the timing of the UL synchronisation.]

[1.28Mcps TDD - Uplink Timing Advance Control LCR:]

[1.28Mcps TDD - The DRNC shall include the *Uplink Timing Advance Control LCR* IE in the RADIO LINK RECONFIGURATION READY message, if the Uplink Timing Advance Control parameters have been changed.]

[1.28Mcps TDD - PowerControl GAP:]

[1.28Mcps TDD - If applied in the DRNS, the DRNC may include the *PowerControl GAP* IE in the RADIO LINK RECONFIGURATION READY message.]

[TDD - DSCH RNTI Addition/Deletion:]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *PDSCH RL ID* IE, then the DRNS shall use it as the new RL identifier for PDSCH and PUSCH.]

- [TDD - If the indicated PDSCH RL ID is in the DRNS and there was no DSCH-RNTI allocated to the UE Context, the DRNC shall allocate a DSCH-RNTI to the UE Context and include the *DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION READY message.]

- [TDD - If the indicated PDSCH RL ID is in the DRNS and there was a DSCH-RNTI allocated to the UE Context, the DRNC shall allocate a new DSCH-RNTI to the UE Context, release the old DSCH-RNTI and include the *DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION READY message.]

- [TDD - If the indicated PDSCH RL ID is not in the DRNS and there was a DSCH-RNTI allocated to the UE Context, the DRNC shall release this DSCH-RNTI.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes a *DSCHs To Delete* IE and/or a *USCHs To Delete* IE which results in the deletion of all DSCH and USCH resources for the UE Context, then the DRNC shall release the DSCH-RNTI allocated to the UE Context, if there was one.]

[FDD – Phase Reference Handling:]

[FDD – If Primary CPICH usage for channel estimation information has been reconfigured, the DRNC shall include the *Primary CPICH Usage For Channel Estimation* IE in the RADIO LINK RECONFIGURATION READY message.]

[FDD – If Secondary CPICH information for channel estimation has been reconfigured, the DRNC shall include the *Secondary CPICH Information Change* IE in the RADIO LINK RECONFIGURATION READY message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes *Phase Reference Update Indicator* IE, DRNC shall modify the channel estimation information according to [10] subclause 4.3.2.1 and set the value(s) in *Primary CPICH Usage For Channel Estimation* IE and/or *Secondary CPICH Information Change* IE in the RADIO LINK RECONFIGURATION READY message accordingly.]

[FDD – If the RADIO LINK RECONFIGURATION READY message includes the *Primary CPICH Usage For Channel Estimation* IE and/or the *Secondary CPICH Information Change* IE, the DRNC shall avoid the new configuration in which neither the Primary CPICH nor the Secondary CPICH is used as a Phase Reference for this Radio Link.]

[FDD - Fast Reconfiguration:]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Fast Reconfiguration Mode* IE, the DRNS shall, if supported, and if it is possible to base the synchronization of the reconfiguration on the detection of the change in the uplink scrambling code for this reconfiguration, include the *Fast ReconfigurationPermission* IE in the RADIO LINK RECONFIGURATION READY message.]

[TDD - Intra- DRNS Serving E-DCH Radio Link Change:]

TDD- If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Serving RL* IE, this indicates the new Serving E-DCH Radio Link:]

- [TDD - In the new configuration the DRNS shall de-allocate the E-DCH resources of the old Serving E-DCH Radio Link and allocate the E-DCH resources for the new Serving E-DCH Radio Link.]

- [3.84Mcps TDD - The DRNS shall allocate E-AGCH parameters corresponding to the E-DCH and include the *E-AGCH Specific Information Response* IE in the *E-DCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [1.28Mcps TDD - The Node B shall allocate E-AGCH parameters and E-HICH parameters corresponding to the E-DCH and include the *E-AGCH Specific Information Response* IE and the *E-HICH Specific Information Response* IE in the *E-DCH Information Response 1.28Mcps* IE in the RADIO LINK RECONFIGURATION READY message.]

- [7.68Mcps TDD - The DRNS shall allocate E-AGCH parameters corresponding to the E-DCH and include the *E-AGCH Specific Information Response 7.68Mcps* IE in the *E-DCH TDD Information Response 7.68Mcps* IE in the RADIO LINK RECONFIGURATION READY message.]

- [TDD - If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

[TDD - E-PUCH Handling:]

[3.84Mcps TDD and 7.68Mcps TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an *E-PUCH Information* IE, the DRNS shall apply the parameters to the new configuration.]

[1.28Mcps TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an *E-PUCH Information LCR* IE, the DRNS shall apply the parameters to the new configuration]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an *E- TFCS Information* IE, the DRNS shall apply the beta parameters to the new configuration.]

[3.84Mcps TDD - E-DCH Setup:]

[3.84Mcps TDD - the radio link may be reconfigured to support E-DCH by including the appropriate E-DCH information elements: *E-DCH Serving RL* IE, *E-PUCH Information* IE, *E-TFCS Information TDD* IE, *E-DCH MAC-d Flows to Add* IE and *E-DCH TDD Information* IE.]

[1.28Mcps TDD - E-DCH Setup:]

[1.28cps TDD - the radio link may be reconfigured to support E-DCH by including the appropriate E-DCH informationelements: *E-DCH Serving RL* IE, *E-PUCH Information LCR* IE, *E-TFCS Information TDD* IE, *E-DCH MAC-d Flows to Add* IE and *E-DCH TDD Information LCR* IE.]

[7.68Mcps TDD - E-DCH Setup:]

[7.68Mcps TDD - the radio link may be reconfigured to support E-DCH by including the appropriate E-DCH information elements: *E-DCH Serving RL* IE, *E-PUCH Information* IE, *E-TFCS Information TDD* IE, *E-DCH MAC-d Flows to Add* IE and *E-DCH TDD Information 7.68Mcps* IE.]

[TDD- E-DCH MAC-d Flow Addition/Deletion:]

[TDD- If the RADIO LINK RECONFIGURATION PREPARE message includes any *E-DCH MAC-d Flows To Add* or E-DCH *MAC-d Flows To Delete* IEs, then the DRNS shall use this information to add/delete the indicated E-DCH MAC-d flows. When an E-DCH MAC-d flow is deleted, all its associated configuration data shall also be removed.]

[TDD- If the RADIO LINK RECONFIGURATION PREPARE message includes an *E-DCH MAC-d Flows To Delete* IE requesting the deletion of all remaining E-DCH MAC-d flows for the UE Context, then the DRNS shall delete the E-DCH configuration from the UE Context and release the E-DCH resources.]

[TDD- If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH MAC-d Flows To Add* IE, then:]

- [TDD- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH MAC-d Flows To Add* IE, the DRNS shall use this information to optimise MAC-e scheduling decisions.]

- [1.28Mcps TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-es Maximum Bit Rate LC*R IE in the *E-DCH Logical Channel Information* IE in the *E-DCH MAC-d Flows To Add* IE, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

[3.84Mcps TDD - E-DCH Non-scheduled allocations:]

[3.84Mcps TDD - The DRNS shall determine any non-scheduled resource to be granted for the radio link, and return this in the *E-DCH Non-scheduled Grant Information TDD* IE in the *E-DCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

[1.28Mcps TDD - E-DCH Non-scheduled allocations:]

[1.28Mcps - The DRNS shall determine any non-scheduled resource to be granted for the radio link, and return this in the *E-DCH Non-scheduled Grant Information LCR TDD* IE in the *E-DCH Information Response 1.28Mcps* IE in the RADIO LINK RECONFIGURATION READY message.]

[7.68Mcps TDD - E-DCH Non-scheduled allocations:]

[7.68Mcps TDD - The DRNS shall determine any non-scheduled resource to be granted for the radio link, and return this in the *E-DCH Non-scheduled Grant Information* 7.68Mcps *TDD* IE in the *E-DCH Information Response 7.68Mcps* IE in the RADIO LINK RECONFIGURATION READY message.]

[3.84Mcps TDD - E-DCH Modification:]

[3.84Mcps TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH TDD Information* IE, then:]

- [3.84Mcps TDD - If the *E-DCH TDD Information* IE includes the *E-DCH TDD Maximum Bitrate* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [3.84Mcps TDD - If the *E-DCH TDD Information* IE includes the *E-DCH Processing Overload Level* IE, then if the DRNS could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of a processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [3.84Mcps TDD – If the *E-DCH TDD Information* IE includes the *E-DCH Power Offset for Scheduling Info* IE, then the DRNS shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

[1.28Mcps TDD - E-DCH Modification:]

[1.28Mcps TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH TDD Information LCR* IE, then:]

- [1.28Mcps TDD - If the *E-DCH TDD Information LCR* IE includes the *E-DCH Physical Layer Category LCR* IE or *Extended E-DCH Physical Layer Category LCR* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [1.28Mcps TDD - If the *E-DCH TDD Information LCR* IE includes the *E-DCH Processing Overload Level* IE for an E-DCH, then if the DRNS could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of a processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [1.28Mcps TDD – If the *E-DCH TDD Information LCR* IE includes the *E-DCH Power Offset for Scheduling Info* IE, then the DRNS shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [1.28Mcps TDD - If the *E-DCH TDD Information LCR* IE includes the *Maximum Number of Retransmission for Scheduling Info LCR* IE and the *E-DCH Retransmission timer for Scheduling Info LCR* IE, then the DRNS shall use these parameters for the transmission of scheduling information without any MAC-d PDUs.]

[7.68Mcps TDD - E-DCH Modification:]

[7.68Mcps TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH TDD Information 7.68Mcps* IE, then:]

- [7.68Mcps TDD - If the *E-DCH TDD Information 7.68Mcps* IE includes the *E-DCH TDD Maximum Bitrate 7.68Mcps* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [7.68Mcps TDD - If the *E-DCH TDD Information 7.68Mcps* IE includes the *E-DCH Processing Overload Level* IE, then if the DRNS could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of a processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [7.68Mcps TDD – If the *E-DCH TDD Information 7.68Mcps* IE includes the *E-DCH Power Offset for Scheduling Info* IE, then the DRNS shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

[TDD- If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH TDD Information To Modify* IE, then:]

- [TDD- If the *E-DCH TDD Information To Modify* IE contains a *E-DCH MAC-d Flow Specific Information* IE which includes the *Allocation/Retention Priority* IE, the DRNS shall apply the new Allocation/Retention Priority to this E-DCH in the new configuration according to Annex A.]

- [TDD- If the *E-DCH TDD Information To Modify* IE contains a *TNL QoS* IE for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [TDD- If the *E-DCH TDD Information To Modify* IE includes the *Maximum Number of Retransmissions for E-DCH* IE for an E-DCH MAC-d flow then the DRNS shall use this information to report if the maximum number of retransmissions has been exceeded.]

- [1.28Mcps TDD - If the *E-DCH TDD Information To Modify* IE includes the *E-DCH MAC-d Flow Retransmission Timer* IE for an E-DCH MAC-d flow then the DRNS shall use this information to set the retransmission timer.]

- [TDD– If the *TNL QoS* IE is included in the *E-DCH TDD Information to Modify* IE for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [TDD- If the *E-DCH TDD Information To Modify* IE includes the *E-DCH HARQ Power Offset TDD* IE for an E-DCH MAC-d flow the DRNS shall use this new power offset value.]

- [TDD- If the *E-DCH TDD Information To Modify* IE includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the DRNS shall use this information for the related resource allocation operation.]

- [TDD- If the *E-DCH TDD Information To Modify* IE contains the *E-DCH Grant Type* IE, the DRNS shall treat the E-DCH MAC-d flow as Scheduled or Non-scheduled accordingly.]

- [TDD- If the *E-DCH TDD Information To Modify* IE includes the *E-DCH Logical Channel To Add* or *E-DCH Logical Channel To Delete* IEs, the DRNS shall use this information to add/delete the indicated logical channels. When a logical channel is deleted, all its associated configuration data shall also removed.]

- [TDD- If the *E-DCH TDD Information To Modify* IE includes the *E-DCH Logical Channel To Modify* IE, the DRNS shall use this information to modify the indicated logical channels:]

    - [TDD - If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Priority Indicator* IE, the DRNS shall apply the values in the new configuration.]

    - [TDD - If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Information* IE, the DRNS shall apply the values in the new configuration.]

    - [TDD - If the *E-DCH Logical Channel To Modify* IE includes *MAC-es Guaranteed Bit Rate* IE, the DRNS shall apply the values in the new configuration.]

    - [TDD - If the *E-DCH Logical Channel To Modify* IE includes E-*DCH DDI Value* IE, the Node B shall apply the values in the new configuration.]

    - [1.28Mcps TDD - If the *E-DCH Logical Channel To Modify* IE includes *MAC-es Maximum Bit Rate LC*R IE, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [TDD– If the *E-DCH TDD Information To Modify* IE includes the *MAC-e Reset Indicator* IE, then the DRNS shall use this value to determine whether MAC-e Reset is performed in the UE for sending the HARQ Failure Indication.]

General

If the requested modifications are allowed by the DRNC and the DRNC has successfully reserved the required resources for the new configuration of the Radio Link(s), it shall respond to the SRNC with the RADIO LINK RECONFIGURATION READY message. When this procedure has been completed successfully there exists a Prepared Reconfiguration, as defined in subclause 3.1.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transport Layer Address* IE and *Binding ID* IE in the [TDD - *DSCHs To Modify* IE, *DSCHs To Add* IE, *USCHs To Modify* IE, *USCHs To Add* IE], *HS-DSCH Information* IE, *HS-DSCH Information To Modify* IE, *HS-DSCH MAC-d Flows To Add* IE, [FDD - *RL Specific E-DCH Information* IE,] [TDD -*E-DCH MAC-d Flows to Add* IE,] [TDD - *E-DCH TDD Information to Modify* IE,] or in the *RL Specific DCH Information* IEs, the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for any Transport Channel [FDD - for which the *Transport Bearer Not Requested Indicator* IE is not included], HS-DSCH MAC-d flow being added or E-DCH MAC-d flow [FDD - for which the *Transport Bearer Not Requested Indicator* IE is not included] being added, or any Transport Channel, HS-DSCH MAC-d flow or E-DCH MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE.

The DRNC shall include in the RADIO LINK RECONFIGURATION READY message the *Transport Layer Address* IE and the *Binding ID* IE for any Transport Channel [FDD - for which the *Transport Bearer Not Requested Indicator* IE is not included], HS-DSCH MAC-d flow being added or E-DCH MAC-d flow [FDD - for which the *Transport Bearer Not Requested Indicator* IE is not included] being added, or any Transport Channel [FDD - for which the *Transport Bearer Not Requested Indicator* IE was not included], HS-DSCH MAC-d flow or E-DCH MAC-d flow [FDD - for which the *Transport Bearer Not Requested Indicator* IE was not included] being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE. In the case of a set of co-ordinated DCHs requiring a new transport bearer on the Iur interface, the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE shall be included [FDD - if the *Transport Bearer Not Requested Indicator* IE is not included for the corresponding DCH,] for only one of the DCHs in the set of co-ordinated DCHs.

[FDD - If the RADIO LINK RECONDIGURATION PREPARE message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer Shall not be Established" for a DCH or an E-DCH MAC-d flow, then the DRNC shall not establish a transport bearer for the concerned DCH or E-DCH MAC-d flow and shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding DCH or E-DCH MAC-d flow in the RADIO LINK RECONFIGURATION READY message.]

[FDD - If the RADIO LINK RECONDIGURATION PREPARE message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer may not be Established" for a DCH or an E-DCH MAC-d flow and:]

- [FDD - if the DRNC establishes a transport bearer for the concerned DCH or E-DCH MAC-d flow, the DRNC shall include in the RADIO LINK RECONFIGURATION READY message the *Binding ID* IE and *Transport Layer Address* IE for establishment of a transport bearer for the DCH or E-DCH MAC-d flow being established.]

- [FDD - if the DRNC does not establish a transport bearer for the concerned DCH or E-DCH MAC-d flow, the DRNC shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding DCH or E-DCH MAC-d flow in the RADIO LINK RECONFIGURATION READY message.]

In the case of a Radio Link being combined with another Radio Link within the DRNS, the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE shall be included for only one of the combined Radio Links [FDD - if the *Transport Bearer Not Requested Indicator* IE is not included for this DCH of the Radio Link].

[FDD - In the case of an E-DCH RL being combined with another E-DCH RL within the DRNS, the *E-DCH FDD Information Response* IE shall be included only for one of the combined E-DCH RLs.]

Any allowed rate for the uplink of a modified DCH provided for the old configuration will not be valid for the new configuration. If the DRNS needs to limit the user rate in the uplink of a DCH due to congestion caused by the UL UTRAN Dynamic Resources (see subclause 9.2.1.79) in the new configuration for a Radio Link, the DRNC shall include in the RADIO LINK RECONFIGURATION READY message the *Allowed UL Rate* IE in the *DCH Information Response* IE for this Radio Link.

Any allowed rate for the downlink of a modified DCH provided for the old configuration will not be valid for the new configuration. If the DRNS needs to limit the user rate in the downlink of a DCH due to congestion caused by the DL UTRAN Dynamic Resources (see subclause 9.2.1.79) in the new configuration for a Radio Link, the DRNC shall include in the RADIO LINK RECONFIGURATION READY message the *Allowed DL Rate* IE in the *DCH Information Response* IE for this Radio Link.

The DRNS decides the maximum and minimum SIR for the uplink of the Radio Link(s) and the DRNC shall include in the RADIO LINK RECONFIGURATION READY message the *Maximum Uplink SIR* IE and *Minimum Uplink SIR* IE for each Radio Link when these values are changed.

[FDD - If the DL TX power upper or lower limit has been re-configured, the DRNC shall include in the RADIO LINK RECONFIGURATION READY message the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE respectively. The DRNS shall not transmit with a higher power than indicated by the *Maximum DL TX Power* IE or lower than indicated by the *Minimum DL TX Power* IE on any DL DPCH or on the F-DPCH of the RL -except, if the UE Context is configured to use DPCH in the downlink, during compressed mode, when the δP_{curr}, as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

[3.84 Mcps TDD and 7.68 Mcps TDD - If the DL TX power upper or lower limit has been re-configured, the DRNC shall include the new value(s) in the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK RECONFIGURATION READY message. If the maximum or minimum power needs to be different for particular DCH type CCTrCHs, the DRNC shall include the new value(s) for that CCTrCH in the *CCTrCH Maximum DL TX Power* IE and *CCTrCH Minimum DL TX Power*. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE/*CCTrCH Maximum DL TX Power* IE or lower than indicated by the appropriate *Minimum DL TX Power* IE/*CCTrCH Minimum DL TX Power* IE on any DL DPCH within each CCTrCH of the RL.]

[1.28 Mcps TDD - If the DL TX power upper or lower limit has been re-configured, the DRNC shall include the new value(s) in the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK RECONFIGURATION READY message. If the maximum or minimum power needs to be different for particular timeslots within a DCH type CCTrCH, the DRNC shall include the new value(s) for that timeslot in the *Maximum DL TX Power* IE and *Minimum DL TX Power* within the *DL Timeslot Information LCR* IE. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE or lower than indicated by the appropriate *Minimum DL TX Power* IE on any DL DPCH within each timeslot of the RL.]

[TDD - If the [3.84Mcps TDD and 7.68 Mcps TDD - *DL Time Slot ISCP Info* IE][1.28Mcps TDD - *DL Time Slot ISCP Info LCR* IE] is present, the DRNS should use the indicated values when deciding the Initial DL TX Power.]

[TDD - If the *Primary CCPCH RSCP Delta* IE is included, the DRNS shall assume that the reported value for Primary CCPCH RSCP is in the negative range as per [24], and the value is equal to the *Primary CCPCH RSCP Delta* IE. If the *Primary CCPCH RSCP Delta* IE is not included and the *Primary CCPCH RSCP* IE is included, the DRNS shall assume that the reported value is in the non-negative range as per [24], and the value is equal to the *Primary CCPCH RSCP* IE. The DRNS shall use the indicated values when deciding the Initial DL TX Power.]

8.3.4.3 Unsuccessful Operation

SRNC   DRNC

RADIO LINK RECONFIGURATION PREPARE

RADIO LINK RECONFIGURATION FAILURE
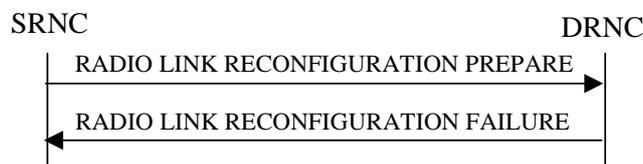
Figure 11: Synchronised Radio Link Reconfiguration Preparation procedure, Unsuccessful Operation

If the DRNS cannot reserve the necessary resources for all the new DCHs of a set of co-ordinated DCHs requested to be added, it shall reject the Synchronised Radio Link Reconfiguration Preparation procedure as having failed.

If the requested Synchronised Radio Link Reconfiguration Preparation procedure fails for one or more RLs, the DRNC shall send the RADIO LINK RECONFIGURATION FAILURE message to the SRNC, indicating the reason for failure for each failed radio link in a *Cause* IE.

Typical cause values are:

Radio Network Layer Causes:

- UL Scrambling Code Already in Use;

- DL Radio Resources not Available;

- UL Radio Resources not Available;

- Requested Configuration not Supported;

- Number of DL Codes not Supported;

- Number of UL Codes not Supported;

- Dedicated Transport Channel Type not Supported;

- DL Shared Channel Type not Supported;

- [TDD - UL Shared Channel Type not Supported;]

- [FDD - UL Spreading Factor not Supported;]

- [FDD - DL Spreading Factor not Supported;]

- CM not Supported;

- RL Timing Adjustment not Supported;

- E-DCH not supported;

- [FDD - F-DPCH not supported;]

- [FDD - Continuous Packet Connectivity DTX-DRX operation not Supported;]

- [FDD - Continuous Packet Connectivity HS-SCCH less operation not Supported;]

- [FDD - MIMO not supported;]

- [FDD - E-DCH TTI2ms not supported;]

- [FDD - Continuous Packet Connectivity DTX-DRX operation not available;]

- [FDD - Continuous Packet Connectivity UE DTX Cycle not available;]

- [FDD - MIMO not available;]

- [FDD - SixteenQAM UL not Supported;]

- HS-DSCH MAC-d PDU Size Format not supported;

- [FDD – F-DPCH Slot Format operation not supported;]

- [FDD – E-DPCCH Power Boosting not supported.]

Miscellaneous Causes:

- Control Processing Overload;

- Not enough User Plane Processing Resources.

8.3.4.4   Abnormal Conditions

If only a subset of all the DCHs belonging to a set of co-ordinated DCHs is requested to be deleted, the DRNS shall reject the Synchronised Radio Link Reconfiguration Preparation procedure as having failed and shall send the RADIO LINK RECONFIGURATION FAILURE message to the SRNC.

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD - or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"] the DRNS shall reject the Synchronised Radio Link Reconfiguration Preparation procedure and the DRNC shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message includes a *DCHs To Modify* IE or *DCHs To Add* IE with multiple *DCH Specific Info* IEs, and if the DCHs in the *DCHs To Modify* IE or *DCHs To Add* IE do not have the same *Transmission Time Interval* IE in the *Semi-static Transport Format Information* IE, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the *RL Information* IE includes the *DL Reference Power* IE, but the power balancing is not active in the indicated RL(s), the DRNS shall reject the Synchronised Radio Link Reconfiguration Preparation procedure as having failed and the DRNC shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Common" in the existing RL(s) but the RADIO LINK RECONFIGURATION PREPARE message includes more than one *DL Reference Power* IE, the DRNS shall reject the Synchronised Radio Link Reconfiguration Preparation procedure as having failed and the DRNC shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

If the RADIO LINK RECONFIGURATION PREPARE message contains the *Transport Layer Address* IE or the *Binding ID* IE when establishing a transport bearer for any Transport Channel or HS-DSCH MAC-d flow being added, or any Transport Channel or HS-DSCH MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE., and not both are present for a transport bearer intended to be established, the DRNC shall reject the Synchronised Radio Link Reconfiguration Preparation procedure and the DRNC shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message contains any of the *HS-DSCH Information To Modify* IE, *HS-DSCH MAC-d Flows To Add* IE or *HS-DSCH MAC-d Flows To Delete* IE in addition to the *HS-DSCH Information* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message contains any of the *HS-DSCH Information To Modify* IE, *HS-DSCH MAC-d Flows To Add* IE, *HS-DSCH MAC-d Flows To Delete* IE or *HS-PDSCH RL ID* IE and the Serving HS-DSCH Radio Link is not in the DRNS, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH Information* IE and does not include the *HS-PDSCH RL-ID* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH Information To Modify* IE deleting the last remaining Priority Queue of an HS-DSCH MAC-d Flow, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-PDSCH RL-ID* IE indicating a Radio Link not existing in the UE Context, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message contains any of the *HS-DSCH Information* IE*, HS-DSCH Information To Modify* IE, or *HS-DSCH MAC-d Flows To Add* IE and if in the new configuration the Priority Queues associated with the same *HS-DSCH MAC-d Flow ID* IE have the same *Scheduling Priority Indicator* IE value, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If, in the new configuration, the concerned UE Context is configured to use "Indexed MAC-d PDU Size" for an HS-DSCH but there exist a priority queue of the MAC-d flows of the HS-DSCH that is configured to use Maximum MAC-d PDU Size Extended, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If, in the new configuration, the concerned UE Context is configured to use "Flexible MAC-d PDU Size" for an HS-DSCH but there exist a priority queue of the MAC-d flows of the HS-DSCH that is configured to use MAC-d PDU Size Index, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *F-DPCH Information* IE and the *DL DPCH Information* IE, then the DRNS shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the RADIO LINK RECONFIGURATION PREPARE message includes *HS-DSCH Information* IE and the HS-DSCH is already configured in the UE Context, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the concerned UE Context is configured to use DPCH in the downlink in the old configuration and if the RADIO LINK RECONFIGURATION PREPARE message includes the *DL DPCH Power Information* IE, then the DRNS shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the concerned UE Context is configured to use F-DPCH in the downlink in the old configuration and the RADIO LINK RECONFIGURATION PREPARE message includes at least one but not all of the *TFCS* IE, *DL DPCH Slot Format* IE, *TFCI Signalling Mode* IE, *Multiplexing Position* IE, *Limited Power Increase* IE and *DL DPCH Power Information* IE in the *DL DPCH Information* IE, then the DRNS shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the *E-DCH FDD Information* IE is present in the RADIO LINK RECONFIGURATION PREPARE message, but the *E-DPCH Information* IE is not present or if any of the *Maximum Set of E-DPDCHs* IE, *Puncture Limit* IE, *E-TFCS Information* IE, *E-TTI* IE or *E-DPCCH Power Offset* IE or *HS-DSCH Configured Indicator* IE are not present in the *E-DPCH Information* IE, then the DRNS shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH RL Indication* IE set to "E-DCH", but no *E-DCH FDD Information* IE, and the UE Context is not configured for E-DCH, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH FDD Information* IE but no *E-DCH RL Indication* IE set to "E-DCH", then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the RADIO LINK RECONFIGURATION PREPARE message contains the *HS-PDSCH RL ID* IE and/or the *Serving E-DCH RL* IE and if both HS-DSCH and E-DCH are configured in the new configuration but the Serving HS-DSCH Radio Link and the Serving E-DCH Radio Link are not in the same cell then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message contains the *HS-PDSCH RL ID* IE and the *E-DPCH Information* IE which includes the *HS-DSCH Configured Indicator* IE set as "HS-DSCH not configured" then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message contains any of the *E-DCH FDD Information To Modify* IE, *E-DCH MAC-d Flows To Add* IE or *E-DCH MAC-d Flows To Delete* IE in addition to the *E-DCH FDD Information* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message contains any of the *E-DCH FDD Information To Modify* IE, *E-DCH MAC-d Flows To Add* IE, *E-DCH MAC-d Flows To Delete* IE and the UE Context is not configured for E-DCH, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH FDD Information To Modify* IE deleting the last remaining E-DCH Logical Channel of an E-DCH MAC-d Flow, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes *E-DCH FDD Information* IE and the E-DCH is already configured in the UE Context, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the *Fast Reconfiguration* IE is included in the RADIO LINK RECONFIGURATION PREPARE message and the *UL Scrambling Code* IE does not indicate an uplink scrambling code different from the currently used uplink scrambling code the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE in addition to the *Continuous Packet Connectivity DTX-DRX Information* IE, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity HS-SCCH less Deactivate Indicator* IE in addition to the *Continuous Packet Connectivity HS-SCCH less Information* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity HS-SCCH less Deactivate Indicator* IE while the Continuous Packet Connectivity HS-SCCH less configuration isn't configured in the DRNC, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE while the Continuous Packet Connectivity *DTX-DRX* configuration isn't configured in the DRNC, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *DRX Information To Modify* IE in *Continuous Packet Connectivity DTX-DRX Information To Modify* IE while the Continuous Packet Connectivity DRX configuration is not configured in the DRNC, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH Indicator* IE set to "Uplink DCH only" but no *Transport Format Set* IE for the uplink for this DCH and the DRNC had ignored the configuration of Transport Format Set for uplink, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH Indicator* IE set to "Downlink DCH only" but no *Transport Format Set* IE for the downlink for this DCH and the DRNC had ignored the configuration of Transport Format Set for downlink, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message contains the *Transport Bearer Not Requested Indicator* IE for a DCH or an E-DCH MAC-d flow but does not contain the corresponding *DCH ID* IE and the *Unidirectional DCH indicator* IE set to "Uplink DCH only" for the DCH in *DCH Information To Add* IE or does not contain the corresponding *E-DCH MAC-d Flow ID* IE in *E-DCH MAC-d Flows Information* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the concerned UE Context is configured to apply UL DPCCH Slot Format 4 but is not configured to use F-DPCH, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the concerned UE Context is configured to apply UL DPCCH Slot Format 0 or 2 and execute Continuous Packet Connectivity DTX-DRX operation, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the concerned UE Context is configured to apply the "Closed loop mode 1" and if the concerned UE Context is not configured to apply UL DPCCH Slot Format 2 or 3, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the concerned UE Context is configured to apply MIMO or allowed to apply 64QAM but is not configured to use flexible MAC-d PDU Size, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transport Bearer Not Requested Indicator* IE for a DCH in the *RL Specific DCH Information* IE but does not include the *DCH ID* IE for the DCH in the *DCHs to Add* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transport Bearer Not Requested Indicator* IE for an E-DCH MAC-d flow in the *RL Specific E-DCH Information* IE but does not include the *E-DCH MAC-d flow ID* IE for the E-DCH MAC-d flow in the *E-DCH MAC-d flows Information* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message contains the *Continuous Packet Connectivity DTX-DRX Information* IE but does not contain the *F-DPCH Information* IE and the concerned UE Context is not previously configured to use F-DPCH, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message]

[FDD - If the concerned UE Context is configured to have the Serving E-DCH Radio Link but there is at least one E-DCH MAC-d flow which the transport bearer is not configured for the Serving E-DCH Radio Link in DRNS, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transport Bearer Not Requested Indicator* IE for a DCH or an E-DCH MAC-d Flow for a specific RL and the specific RL is combined with existing RL which the transport bearer is established for the DCH or the E-DCH MAC-d Flow in the DRNS, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

8.3.5 Synchronised Radio Link Reconfiguration Commit

8.3.5.1 General

This procedure is used to order the DRNS to switch to the new configuration for the Radio Link(s) within the DRNS, previously prepared by the Synchronised Radio Link Reconfiguration Preparation procedure.

This procedure shall use the signalling bearer connection for the relevant UE Context.

8.3.5.2 Successful Operation

Figure 12: Synchronised Radio Link Reconfiguration Commit procedure, Successful Operation

The DRNS shall switch to the new configuration previously prepared by the Synchronised Radio Link Reconfiguration Preparation procedure at the "configuration switching point" occurring:

- [TDD – at the next coming CFN with a value equal to the value requested by the SRNC in the CFN IE (see ref.[17] subclause 9.4) when receiving the RADIO LINK RECONFIGURATION COMMIT message from the SRNC.]

- [FDD – if the Fast Reconfiguration IE is not included in the RADIO LINK RECONFIGURATION COMMIT message at the next coming CFN with a value equal to the value requested by the SRNC in the *CFN* IE (see ref.[17] subclause 9.4) when receiving the RADIO LINK RECONFIGURATION COMMIT message from the SRNC.]

- [FDD – if the *Fast Reconfiguration* IE is included in the RADIO LINK RECONFIGURATION COMMIT message as soon as the DRNS detects that the UE uses the new configuration in the uplink (e.g. the NodeB indicates that the UE uses the new scrambling code used for the uplink by sending the RADIO LINK RESTORATION message). In order to limit the period for the detection in the DRNS the CFN in the RADIO LINK RECONFIGURATION COMMIT message indicates the earliest possible time instant at which the UE might use the new configuration.]

[FDD - If the *Active Pattern Sequence Information* IE is included in the RADIO LINK RECONFIGURATION COMMIT message, the *CM Configuration Change CFN* IE in the *Active Pattern Sequence Information* IE shall be ignored by the DRNS.]

[FDD – If the *Active Pattern Sequence Information* IE is not included in the RADIO LINK RECONFIGURATION COMMIT message and a new Compressed Mode Configuration exists in the prepared configuration, the DRNS shall behave as if an *Active Pattern Sequence Information* IE with an empty *Transmission Gap Pattern Sequence Status* IE was included.]

When this procedure has been completed the Prepared Reconfiguration does not exist any more, see subclause 3.1.

In the case of a Transport Channel or MAC-d flow modification for which a new transport bearer was requested and established, the switch to the new transport bearer shall also take place at the configuration switching point (defined above) indicated CFN.

The detailed frame protocol handling during transport bearer replacement is described in [4], subclause 5.10.1, and in [32], subclauses 5.3.1 and 5.3.2.

[FDD - If the RADIO LINK RECONFIGURATION COMMIT includes the *Active Pattern Sequence Information* IE, the DRNS shall deactivate all the ongoing Transmission Gap Pattern Sequences at the configuration switching point (defined above). From that moment on all Transmission Gap Pattern Sequences included in *Transmission Gap Pattern Sequence Status* IE repetitions shall be started when the indicated *TGCFN* IE elapses. The *CFN* IE and *TGCFN* IE for each sequence refer to the next coming CFN with that value. If the values of the *CFN* IE and the *TGCFN* IE are equal, the concerned Transmission Gap Pattern Sequence shall be started immediately at the CFN with a value equal to the value received in the *CFN* IE.]

[FDD - If the RADIO LINK RECONFIGURATION COMMIT message includes the *Active Pattern Sequence Information* IE and the concerned UE Context is configured to use F-DPCH in the downlink, the DRNS shall ignore, when activating the Transmission Gap Pattern Sequence(s), the downlink compressed mode method information, if existing, for the concerned Transmission Gap Pattern Sequence(s) in the Compressed Mode Configuration]

8.3.5.3 Abnormal Conditions

If a new transport bearer is required for the new configuration and it is not available at the requested configuration switching point (defined in sub-clause 8.3.3.2), the DRNS shall initiate the Radio Link Failure procedure.

[FDD – If the *Fast Reconfiguration* IE is included in the RADIO LINK RECONFIGURATION COMMIT message and the DRNC did not include the *Fast ReconfigurationPermission* IE in the RADIO LINK RECONFIGURATION READY message, the DRNC shall initiate the Radio Link Failure procedure.]

8.3.6 Synchronised Radio Link Reconfiguration Cancellation

8.3.6.1 General

This procedure is used to order the DRNS to release the new configuration for the Radio Link(s) within the DRNS, previously prepared by the Synchronised Radio Link Reconfiguration Preparation procedure.

This procedure shall use the signalling bearer connection for the relevant UE Context.

8.3.6.2 Successful Operation

Figure 13: Synchronised Radio Link Reconfiguration Cancellation procedure, Successful Operation

Upon receipt of the RADIO LINK RECONFIGURATION CANCEL message from the SRNC, the DRNS shall release the new configuration ([FDD - including the new Transmission Gap Pattern Sequence parameters (if existing)]) previously prepared by the Synchronised RL Reconfiguration Preparation procedure and continue using the old configuration. When this procedure has been completed the Prepared Reconfiguration does not exist any more, see subclause 3.1.

8.3.6.3 Abnormal Conditions

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8.3.7 Unsynchronised Radio Link Reconfiguration

8.3.7.1 General

The Unsynchronised Radio Link Reconfiguration procedure is used to reconfigure Radio Link(s) related to one UE-UTRAN connection within a DRNS.

The procedure is used when there is no need to synchronise the time of the switching from the old to the new radio link configuration in the cells used by the UE-UTRAN connection within the DRNS.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Unsynchronised Radio Link Reconfiguration procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.7.2 Successful Operation

SRNC   DRNC

RADIO LINK RECONFIGURATION REQUEST

RADIO LINK RECONFIGURATION RESPONSE
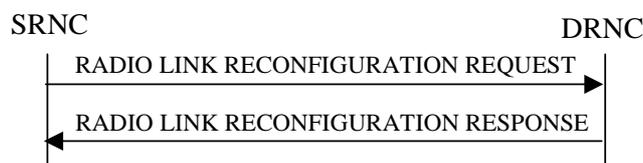
Figure 14: Unsynchronised Radio Link Reconfiguration procedure, Successful Operation

The Unsynchronised Radio Link Reconfiguration procedure is initiated by the SRNC by sending the RADIO LINK RECONFIGURATION REQUEST message to the DRNC.

Upon receipt, the DRNS shall modify the configuration of the Radio Link(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *Allowed Queuing Time* IE the DRNS may queue the request the time corresponding to the value of the *Allowed Queuing Time* IE before starting to execute the request.

The DRNS shall prioritise resource allocation for the RL to be modified according to Annex A.

DCH Modification:

If the RADIO LINK RECONFIGURATION REQUEST message includes any *DCHs To Modify* IEs, then the DRNS shall treat them as follows:

- If the *DCHs To Modify* IE includes multiple *DCH Specific Info* IEs, then the DRNS shall treat the DCHs as a set of co-ordinated DCHs. The DRNS shall include these DCHs in the new configuration only if it can include all of them in the new configuration.

- If the *DCHs To Modify* IE includes the *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- If the *DCHs To Modify* IE includes the *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new ToAWS in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- If the *DCHs To Modify* IE includes the *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new ToAWE in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes a *Transport Format Set* IE for the UL of a DCH to be modified, the DRNS shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.

- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes a *Transport Format Set* IE for the DL of a DCH to be modified, the DRNS shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.

- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Frame Handling Priority* IE, the DRNS should store this information for this DCH in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the DRNS once the new configuration has been activated.

- If the *DCH Specific Info* IE includes the *Traffic Class* IE, the DRNC may use this information to determine the transport bearer characteristics to apply between DRNC and Node B for the related DCH or set of co-ordinated DCHs. The DRNC should ignore the *Traffic Class* IE if the *TrCH Source Statistics Descriptor* IE for this DCH indicates the value "RRC".

- [FDD - If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH indicator* IE set to "Uplink DCH only", the DRNS shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.]

- [FDD - If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH indicator* IE set to "Downlink DCH only", the DRNS shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.]

- If the *TNL QoS* IE is included for a DCH or a set of co-ordinated DCHs and if ALCAP is not used, the DRNS may use this information to determine the transport bearer characteristics to apply for the uplink for the related DCH or set of co-ordinated DCHs.

- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Allocation/Retention Priority* IE, the DRNS shall apply the new Allocation/Retention Priority to this DCH in the new configuration according to Annex A.

- [TDD - If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *CCTrCH ID* IE for the UL, the DRNS shall map the DCH onto the referenced UL CCTrCH in the new configuration.]

- [TDD - If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *CCTrCH ID* IE for the DL, the DRNS shall map the DCH onto the referenced DL CCTrCH in the new configuration.]

- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:

    - If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the uplink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate in the uplink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate.

    - If the *Guaranteed Rate Information* IE includes the *Guaranteed DL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the downlink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user in the downlink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the downlink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate.

DCH Addition:

If the RADIO LINK RECONFIGURATION REQUEST message includes any *DCHs To Add* IEs, then the DRNS shall treat them each as follows:

- The DRNS shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message and include these DCH in the new configuration.

- If the *DCHs To Add* IE includes multiple DCH Specific Info IEs then the DRNS shall treat the DCHs in the *DCHs To Add* IE as a set of co-ordinated DCHs. The DRNS shall include these DCHs in the new configuration only if all of them can be in the new configuration.

- If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Uplink DCH only", the DRNS shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.

- If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Downlink DCH only", the DRNS shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.

- [FDD - For each DCH which does not belong to a set of co-ordinated DCHs, and which includes a *QE-Selector* IE set to "selected", the DRNS shall use the Transport channel BER from that DCH for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH, the DRNS shall use the Physical channel BER for the QE, ref. [4]. If the *QE-Selector* IE is set to "non-selected", the DRNS shall use the Physical channel BER for the QE in the UL data frames, ref. [4].]

- For a set of co-ordinated DCHs, the DRNS shall use the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" for the QE in the UL data frames, ref. [4]. [FDD - If no Transport channel BER is available for the selected DCH, the DRNS shall use the Physical channel BER for the QE, ref. [4]. If all DCHs have the *QE-Selector* IE set to "non-selected", the DRNS shall use the Physical channel BER for the QE, ref. [4].] [TDD - If no Transport channel BER is available for the selected DCH, the DRNS shall use 0 for the QE, ref. [4].]

- The DRNS should store the *Frame Handling Priority* IE received for a DCH to be added in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the Uu interface in congestion situations within the DRNS once the new configuration has been activated.

- The *Traffic Class* IE may be used to determine the transport bearer characteristics to apply between DRNC and Node B for the related DCH or set of co-ordinated DCHs. The DRNC should ignore the *Traffic Class* IE if the *TrCH Source Statistics Descriptor* IE indicates the value "RRC".

- If the *TNL QoS* IE is included for a DCH or a set of co-ordinated DCHs and if ALCAP is not used, the DRNS may use this information to determine the transport bearer characteristics to apply for the uplink for the related DCH or set of co-ordinated DCHs.

- The DRNS shall use the included *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be added as the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- The DRNS shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Startpoint in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- The DRNS shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Endpoint in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- If the *DCH Specific Info* IE includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:

  - If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the uplink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate of the uplink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCH Information* IE does not include the *Guaranteed UL Rate* IE, the DRNS shall not limit the user rate of the uplink of the DCH.

  - If the *Guaranteed Rate Information* IE includes the *Guaranteed DL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the downlink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate of the downlink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the downlink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCH*

Information IE does not include the *Guaranteed DL Rate* IE, the DRNS shall not limit the user rate of the uplink of the DCH.

DCH Deletion:

If the RADIO LINK RECONFIGURATION REQUEST message includes any *DCHs To Delete* IEs, the DRNS shall not include the referenced DCHs in the new configuration.

If all of the DCHs belonging to a set of co-ordinated DCHs are requested to be deleted, the DRNS shall not include this set of co-ordinated DCHs in the new configuration.

[FDD - Physical Channel Modification:]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *UL DPCH Information* IE, then the DRNS shall apply the parameters to the new configuration as follows:]

- [FDD - If the *UL DPCH Information* IE includes the *TFCS* IE for the UL, the DRNS shall apply the new TFCS in the Uplink of the new configuration.]

- [FDD - If the *UL DPCH Information* IE includes the *UL DPDCH Indicator For E-DCH Operation* IE set to "UL DPDCH not present", the UL DPDCH resources shall be removed from the configuration.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes a *DL DPCH Information* IE, then the DRNS shall apply the parameters to the new configuration as follows:]

- [FDD - If the *DL DPCH Information* IE includes the *TFCS* IE for the DL, the DRNS shall apply the new TFCS in the Downlink of the new configuration.]

- [FDD - If the *DL DPCH Information* IE includes the *TFCI Signalling Mode* IE for the DL, the DRNS shall apply the new TFCI Signalling Mode in the Downlink of the new configuration.]

- [FDD - If the *DL DPCH Information* IE includes the *Limited Power Increase* IE and the IE is set to "Used", the DRNS shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control in the new configuration.]

- [FDD - If the *DL DPCH Information* IE includes the *Limited Power Increase* IE and the IE is set to "Not Used", the DRNS shall not use Limited Power Increase for the inner loop DL power control in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, the DRNS shall store the new information about the Transmission Gap Pattern Sequences to be used in the new Compressed Mode configuration. Any Transmission Gap Pattern Sequences already existing in the previous Compressed Mode Configuration are replaced by the new sequences once the new Compressed Mode Configuration has been activated. This new Compressed Mode Configuration shall be valid in the DRNS until the next Compressed Mode Configuration is configured in the DRNS or last Radio Link is deleted.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, and if the *Downlink Compressed Mode Method* in one or more Transmission Gap Pattern Sequence within the *Transmission Gap Pattern Sequence Information* IE is set to "SF/2", the DRNC shall include the *DL Code Information* IE in the RADIO LINK RECONFIGURATION RESPONSE message, without changing any of the DL Channelisation Codes or DL Scrambling Codes, indicating for each DL Channelisation Code whether the alternative scrambling code shall be used or not.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-DPCH Information* IE which contains the *E-TFCS Information* IE, the DRNS shall use the *E-TFCS Information* IE for the E-DCH when reserving resources for the uplink of the new configuration. The DRNS shall apply the new TFCS in the uplink of the new configuration. If the *E-TFCS Information* IE contains the *E-DCH Minimum Set E-TFCI Validity Indicator* IE the DRNS shall ignore the value in *E-DCH Minimum Set E-TFCI* IE. If the *E-DCH Minimum Set E-TFCI validity indicator* IE is absent DRNS shall use the value for the related resource allocation operation.]

[FDD - If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-DPDCH Power Interpolation* IE, the DRNS shall use the value to determine the applicable E-DPDCH power formula defined in [10]. If the *E-DPDCH Power Interpolation* IE is not present, the DRNS shall use the E-DPDCH power extrapolation formula defined in [10] if the *E-DCH FDD Information* IE is included in the RADIO LINK RECONFIGURATION REQUEST message.]

FDD - If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-TFCI Boost Information* IE, the DRNS shall use the information according to [10]. If the *E-TFCI Boost Information* IE is not present, the DRNS shall use the value "127" in the algorithm defined in [10] if the *E-DCH FDD Information* IE is included in the RADIO LINK RECONFIGURATION REQUEST message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST includes an *E-DPCH Information* IE which contains the *E-DPCCH Power Offset* IE, the DRNS shall use the value when the new configuration is being used.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST includes an *E-DPCH Information* IE which contains the *E-RGCH 2-Index-Step* IE, the DRNS shall use the value when the new configuration is being used.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST includes an *E-DPCH Information* IE which contains the *E-RGCH 3-Index-Step* IE, the DRNS shall use the value when the new configuration is being used.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST includes an *E-DPCH Information* IE which contains the *HARQ Info for E-DCH* IE, the DRNS shall use the value when the new configuration is being used.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity DTX-DRX Information* IE, then:]

- [FDD – The DRNS shall configure the concerned UE Context for Continuous Packet Connectiviy DTX operation according to [10].]

- [FDD – If *DRX Information* IE is included in the *Continuous Packet Connectivity DTX-DRX Information* IE, then the DRNS shall configure the concerned UE Context for Continuous Packet Connectiviy DRX operation according to [10].]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then:]

- [FDD - If the *UE DTX DRX Offset* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the DRNS shall apply the indicated Offset in *UE DTX DRX Cycle* IE in the new configuration.]

- [FDD - If the *Enabling Delay* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the DRNS shall use this value to determine the beginning of uplink transmission in the new configuration according to [10] .]

- [FDD - If the *DTX Information To Modify* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the DRNS shall use this information to modify the indicated DTX Information parameter in the new configuration. If the choice of *DTX Information To Modify* IE is "Deactivate", then DRX should be deactived together with DTX.]

- [FDD - If the *DRX Information To Modify* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the DRNS shall use this information to modify the indicated DRX Information in the new configuration.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity HS-SCCH less Information* IE, then:]

- [FDD – The DRNS shall configure the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE for Continuous Packet Connectiviy HS-SCCH less operation according to [10].]

- [FDD – The DRNS shall allocate the HS-PDSCH codes needed for HS-SCCH less operation and include the *Continuous Packet Connectivity HS-SCCH less Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – If at least one of *HS-PDSCH Second Code Support* IE is set to "True", then the DRNC shall include *HS-PDSCH Second Code Index* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

[FDD- If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity HS-SCCH less Deactivate Indicator* IE, then the DRNS shall deactive the Continuous Packet Connectivity HS-SCCH less operation for the HS-DSCH Radio Link.]

[TDD - UL/DL CCTrCH Modification]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes any *UL CCTrCH To Modify* IE or *DL CCTrCH To Modify* IE, the DRNS shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message.]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes any *UL CCTrCH Information To Modify* IEs or *DL CCTrCH Information To Modify* IEs which contain a *TFCS* IE, the DRNS shall apply the included *TFCS* IE as the new value(s) to the referenced CCTrCH. Otherwise the DRNS shall continue to apply the previous value(s) specified for this CCTrCH.]

[1.28Mcps TDD - If the *UL CCTrCH To Modify* IE includes *UL SIR Target* IE, the DRNS shall apply this value as the new configuration and use it for the UL inner loop power control according [12] and [22].]

[TDD - UL/DL CCTrCH Deletion]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes any *UL CCTrCH Information To Delete* IEs or *DL CCTrCH Information To Delete* IEs, the DRNS shall not include the referenced CCTrCH in the new configuration.]

DL Power Control:

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *DL Reference Power Information* IE and the power balancing is active, the DRNS shall update the reference power of the power balancing in the indicated RL(s), if updating of power balancing parameters by the RADIO LINK RECONFIGURATION REQUEST message is supported, using the *DL Reference Power Information* IE in the RADIO LINK RECONFIGURATION REQUEST message. The updated reference power shall be used from the next adjustment period.]

[FDD - If updating of power balancing parameters by the RADIO LINK RECONFIGURATION REQUEST message is supported by the DRNS, the DRNC shall include the *DL Power Balancing Updated Indicator* IE in the *RL Information Response* IE for each affected RL in the RADIO LINK RECONFIGURATION RESPONSE message.]

[1.28Mcps TDD - Uplink Synchronisation Parameters LCR:]

[1.28Mcps TDD - If the *Uplink Synchronisation Parameters LCR* IE is present, the DRNC shall use the indicated values of *Uplink synchronisation stepsize* IE and *Uplink synchronisation frequency* IE when evaluating the timing of the UL synchronisation.]

[1.28Mcps TDD - Uplink Timing Advance Control LCR:]

[1.28Mcps TDD - The DRNC shall include the *Uplink Timing Advance Control LCR* IE in the RADIO LINK RECONFIGURATION RESPONSE message, if the Uplink Timing Advance Control parameters have been changed.]

[1.28Mcps TDD - PowerControl GAP:]

[1.28Mcps TDD - If applied in the DRNS, the DRNC may include the *PowerControl GAP* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

RL Information:

[FDD. If the UE Context is configured for F-DPCH Slot Format operation, the DRNS shall include the *F-DPCH Slot Format* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

HS-DSCH Setup:

If the *HS-DSCH Information* IE is present in the RADIO LINK RECONFIGURATION REQUEST message, then:

- The DRNS shall setup the requested HS-PDSCH resources on the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE.

- The DRNC shall include the *HARQ Memory Partitioning* IE in the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION RESPONSE message. [FDD – The *HARQ Memory Partitioning* IE shall either contain the *HARQ Memory Partitioning Information Extension For MIMO* IE or the *Number of Processes* IE set to a value higher than "8", if the *MIMO Activation Indicator* IE is included in the *HS-DSCH Information* IE.]

- The DRNC shall allocate an HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION RESPONSE message.

- The DRNS may use the *Traffic Class* IE for a specific HS-DSCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. If *TrCH Source Statistics Descriptor* IE is present with the value "RRC" in the *HS-DSCH MAC-d Flows Information* IE, then the DRNC should ignore the *Traffic Class* IE.

- If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink between the DRNS and the SRNC for the related MAC-d flow.

- If fields are to be included in the User Plane by the SRNC to handle TNL Congestion Control for HSDPA in the DRNS, then the DRNC shall include the *User Plane Congestion Fields Inclusion* IE in the *HS-DSCH Information Response* IE.

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall ignore the *SID* IE and *MAC-d PDU Size* IE in the *MAC-d PDU Size Index* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related HSDPA Priority Queue.

- The DRNC shall include the *HS-DSCH Initial Capacity Allocation* IE in the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION RESPONSE message for every HS-DSCH MAC-d flow being established, if the DRNS allows the SRNC to start transmission of MAC-d PDUs before the DRNS has allocated capacity on user plane as described in [32]. If RADIO LINK RECONFIGURATION REQUESTmessage includes *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE set to "Flexible MAC-d PDU Size", then DRNC shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer recieved in RADIO LINK RECONFIGURATION REQUEST in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE.

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-SCCH Power Offset* IE in the *HS-DSCH Information* IE, then the DRNS may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]

- [FDD - The DRNS shall allocate HS-SCCH codes corresponding to the HS-DSCH and the DRNC shall include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [TDD - The DRNS shall allocate HS-SCCH parameters corresponding to the HS-DSCH and the DRNC shall include the [3.84Mcps TDD - *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR* IE] [7.68Mcps TDD - *HS-SCCH Specific Information Response 7.68Mcps* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD - The DRNC shall include the *HS-PDSCH And HS-SCCH Scrambling Code* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information* IE, then the DRNS shall use the indicated HARQ Preamble Mode as described in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the DRNC shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message. If the *HARQ*

Preamble Mode IE is not included or if the mode 0 is applied, then the DRNC shall not include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE, then the DRNS shall use the indicated format in user plane frame structure for HS-DSCH channels [32] and MAC-hs [41].

- [FDD - The DRNC shall include the *Measurement Power Offset* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD - If the *MIMO Activation Indicator* IE is included in the *HS-DSCH FDD Information* IE, then]

  - [FDD - The DRNS shall activate the MIMO mode for the HS-DSCH Radio Link.]

  - [FDD – The DRNS shall decide the pilot configuration and the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE, then the DRNS may if the value is set to "allowed" use 64 QAM for the HS-DSCH Radio Link, and the DRNS shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE with value set to "not allowed", then the DRNS shall not use 64 QAM for the HS-DSCH Radio Link.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH MAC-d PDU Size Format* IE set to "Flexible MAC-d PDU Size" and if Sixtyfour QAM will not be used, the DRNS shall include the *HS-DSCH TB Size Table Indicator* IE in the RADIO LINK RECONFIGURATION RESPONSE message if it decides to use the octet aligned table defined in [41] for HS-DSCH Transport Block Size signalling.]

- [1.28Mcps TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Number of Supported Carriers* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information* IE, the DRNS shall use this information to allocate HSDPA resources over multiple carriers for the UE.]

- [1.28Mcps TDD - For a multi-frequency cell, if the RADIO LINK RECONFIGURATION REQUEST message includes the *Multi-carrier HS-DSCH Physical Layer Category* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information* IE, the DRNS shall use this information together with the *HS-DSCH Physical Layer Category* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information* IE to allocate HSDPA resources over multiple carriers for the UE.]

Intra-DRNS Serving HS-DSCH Radio Link Change:

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-PDSCH RL ID* IE, this indicates the new Serving HS-DSCH Radio Link:

- The DRNS shall release the HS-PDSCH resources on the old Serving HS-DSCH Radio Link and setup the HS-PDSCH resources on the new Serving HS-DSCH Radio Link.

- If fields are to be included in the User Plane by the SRNC to handle TNL Congestion Control for HSDPA in the DRNS, then the DRNC shall include the *User Plane Congestion Fields Inclusion* IE in the *HS-DSCH Information Response* IE.

- The DRNC may include the *HARQ Memory Partitioning* IE in the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION RESPONSE message. [FDD – The *HARQ Memory Partitioning* IE may contain the *HARQ Memory Partitioning Information Extension For MIMO* IE.]

- The DRNC shall allocate a new HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION RESPONSE message.

- If a reset of the MAC-hs is not required the DRNS shall include the *MAC-hs Reset Indicator* IE in the RADIO LINK RECONFIGURATION RESPONSE message.

- [FDD - The DRNC shall include the *Measurement Power Offset* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD - The DRNS shall allocate HS-SCCH codes corresponding to the HS-DSCH and the DRNC shall include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [TDD - The DRNS shall allocate HS-SCCH parameters corresponding to the HS-DSCH and the DRNC shall include the [3.84Mcps TDD - *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR* IE] [7.68 Mcps TDD - *HS-SCCH Specific Information Response 7.68 Mcps* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [TDD - The DRNC shall include the [3.84 Mcps TDD - *HS-PDSCH Timeslot Specific Information* IE] [1.28 Mcps TDD - *HS-PDSCH Timeslot Specific Information LCR* IE] [7.68 Mcps TDD - *HS-PDSCH Timeslot Specific Information 7.68 Mcps* IE]in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD - The DRNC shall include the *HS-PDSCH And HS-SCCH Scrambling Code* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- The DRNC may include the *Transport Layer Address* IE and the *Binding ID* IE for HS-DSCH MAC-d flow in the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION RESPONSE message.

- If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink between the DRNS and the SRNC for the related MAC-d flow.

HS-DSCH Modification:

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH Information To Modify Unsynchronised* IE, then:

- The DRNC shall include the *HS-DSCH Initial Capacity Allocation* IE for each HS-DSCH MAC-d flow being modified for which the establishment of one or several new Priority Queues was requested, if the DRNS allows the SRNC to start the transmission of MAC-d PDUs for the Priority Queue(s) being established before the DRNS has allocated capacity on user plane as described in [32]. If UE context is configured to use "Flexible MAC-d PDU Size", then DRNC shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer for the Priority Queue of UE context.

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *Traffic Class* IE in the *HS-DSCH Information To Modify Unsynchronised* IE for a specific HS-DSCH MAC-d flow, the DRNS may use this information to determine the transport bearer characteristics to apply between DRNC and Node B. The DRNC should ignore the *Traffic Class* IE if the *TrCH Source Statistics Descriptor* IE for this specific HS-DSCH MAC-d flow indicates the value "RRC".

- If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink between the DRNS and the SRNC for the related MAC-d flow.

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE in the *HS-DSCH Information To Modify Unsynchronised* IE, the DRNS shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH Information To Modify Unsynchronised* IE, then the DRNS shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *ACK Power Offset* IE, the *NACK Power Offset* IE or the *CQI Power Offset* IE in the *HS-DSCH Information To Modify Unsynchronised* IE, then the DRNS shall use the indicated ACK Power Offset, the NACK Power Offset or the CQI Power Offset in the new configuration.]

- [FDD - If the *HS-SCCH Power Offset* IE is included in the *HS-DSCH Information To Modify Unsynchronised* IE, the DRNS may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]

- [TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *TDD ACK NACK Power Offset* IE in the *HS-DSCH Information To Modify Unsynchronised* IE, the DRNS shall use the indicated power offset in the new configuration.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information To ModifyUnsynchronised* IE, then the DRNS shall use the indicated HARQ Preamble Mode in the new configuration as described in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the DRNC shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message. If the *HARQ Preamble Mode* IE is not included or if the mode 0 is applied, then the DRNC shall not include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD - If the *MIMO Mode Indicator* To Modify IE is included in the *HS-DSCH Information To Modify Unsynchronised* IE, then]

    - [FDD - The DRNS shall activate/deactivate the MIMO mode for the HS-DSCH Radio Link in the new configuration in accordance with the *MIMO Mode Indicator* IE.]

    - [FDD - If the *MIMO Mode Indicator* IE is set to "Activate", then the DRNS shall decide the pilot configuration and the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD - The DRNC may include the *HARQ Memory Partitioning* IE in the RADIO LINK RECONFIGURATION RESPONSE message. The *HARQ Memory Partitioning* IE may contain the *HARQ Memory Partitioning Information Extension For MIMO* IE.]

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH Information To Modify Unsynchronised* IE, then the DRNS may if the value is set to "allowed" use 64 QAM for the HS-DSCH Radio Link, and the DRNS shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH Information To Modify Unsynchronised* IE with value set to "not allowed", then the DRNS shall not use 64 QAM for the HS-DSCH Radio Link.]

- [FDD - If MAC-ehs is applied in the new configuration, and if Sixtyfour QAM will not be used, the DRNS shall include the *HS-DSCH TB Size Table Indicator* IE in the RADIO LINK RECONFIGURATION RESPONSE message if it decides to use the octet aligned table defined in [41] for HS-DSCH Transport Block Size signalling.]

- [1.28Mcps TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Number of Supported Carriers* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information To Modify* IE, the DRNS shall use this information to allocate HSDPA resources over multiple carriers for the UE.]

- [1.28Mcps TDD - For a multi-frequency cell, if the RADIO LINK RECONFIGURATION REQUEST message includes the *Multi-carrier HS-DSCH Physical Layer Category* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information To Modify* IE, the DRNS shall use this information together with the *HS-DSCH Physical Layer Category* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information To Modify* IE to allocate HSDPA resources over multiple carriers for the UE.]

HS-DSCH MAC-d Flow Addition/Deletion:

If the RADIO LINK RECONFIGURATION REQUEST message includes any *HS-DSCH MAC-d Flows To Add* or *HS-DSCH MAC-d Flows To Delete* IEs, then the DRNS shall use this information to add/delete the indicated HS-DSCH MAC-d flows on the Serving HS-DSCH Radio Link. When an HS-DSCH MAC-d flow is deleted, all its associated Priority Queues shall also be removed.

If the RADIO LINK RECONFIGURATION REQUEST message includes an *HS-DSCH MAC-d Flows To Delete* IE requesting the deletion of all remaining HS-DSCH MAC-d flows for the UE Context, then the DRNC shall delete the HS-DSCH configuration from the UE Context and release the HS-PDSCH resources.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH MAC-d Flows To Add* IE, then:

- The DRNS may use the *Traffic Class* IE for a specific HS-DSCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. If *TrCH Source Statistics Descriptor* IE is present with the value "RRC" in the *HS-DSCH MAC-d Flows Information* IE, then the DRNC should ignore the *Traffic Class* IE.

- If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink between the DRNS and the SRNC for the related MAC-d flow.

- The DRNC shall include the *HS-DSCH Initial Capacity Allocation* IE in the RADIO LINK RECONFIGURATION RESPONSE message for every HS-DSCH MAC-d flow being added, if the DRNS allows the SRNC to start transmission of MAC-d PDUs before the DRNS has allocated capacity on user plane as described in [32]. If the UE context is configured to use the "Flexible MAC-d PDU Size" format for the HS-DSCH, then DRNC shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer recieved in RADIO LINK RECONFIGURATION REQUEST message in the *HS-DSCH MAC-d Flows To Add* IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE in the *HS-DSCH MAC-d Flows To Add* IE, the DRNS shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows To Add* IE, then the DRNC shall ignore the *SID* IE and *MAC-d PDU Size* IE in the *MAC-d PDU Size Index* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related HSDPA Priority Queue.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows To Add* IE, then the DRNS shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

[FDD - E-DCH Setup:]

[FDD - If the *E-DCH FDD Information* IE is present in the RADIO LINK RECONFIGURATION REQUEST message then:]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel information* IE in the *E-DCH FDD Information* IE, then the DRNS shall use this information to optimise MAC-e scheduling decisions.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the DRNS shall use this information for the related resource allocation operation.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the DRNS shall use this information for the related resource allocation operation.]

- [FDD - If in the RADIO LINK RECONFIGURATION REQUEST message the E-DCH Grant Type is indicated as being "E-DCH Non-Scheduled Transmission Grant" for an E-DCH MAC-d flow the DRNS shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the H*ARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE, if included, for the related resource allocation operation.]

- [FDD - If in the RADIO LINK RECONFIGURATION REQUEST message the E-DCH Grant Type is indicated as being "E-DCH Scheduled Transmission Grant" for an E-DCH MAC-d flow the DRNS shall assume scheduled grants being configured for that E-DCH MAC-d flow.]

- [FDD - The DRNS may use the *Traffic Class* IE for a specific E-DCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. If *TrCH Source Statistics Descriptor* IE is present with the value "RRC" in the *E-DCH MAC-d Flows Information* IE, then the DRNC should ignore the *Traffic Class* IE.]

- [FDD - If the *TNL QoS* IE is included for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Bundling Mode Indicator* IE for a E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information* IE and the *Bundling Mode Indicator* IE is set to "Bundling" and the *E-TTI* IE is set to "2ms", then the DRNS shall use the bundling mode for the E-DCH UL data frames for the related Mac-d flow, otherwise the DRNS shall use the non-bundling mode for the E-DCH UL data frames for the related Mac-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Maximum Bitrate* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Processing Overload Level* IE, then if the DRNS could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH ReferencePower Offset* IE, then the DRNS may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Power Offset for Scheduling Info* IE, then the DRNS shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-AGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-DPCH Information* IE which contains the *HS-DSCH Configured Indicator* IE and/or the *Maximum Set of E-DPDCHs* IE, and/or the *Puncture Limit* IE and/or the *E-TTI* IE, the DRNS shall use and apply the value(s) in the new configuration.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *SixteenQAM UL Operation Indicator* IE, the DRNS shall activate/deactivate SixteenQAM UL Operation for the RL in accordance with the *SixteenQAM UL Operation Indicator* IE.]

  - [FDD – If SixteenQAM UL Operation is activated, then the DRNS shall base the handling of the Relative Grant signalling on Scheduling Grant Table 2 according to [41]. If SixteenQAM UL Operation is deactivated, then the DRNS shall base the handling of the Relative Grant signalling on Scheduling Grant Table 1 according to [41].]

[FDD – E-DCH Radio Link Handling:]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH RL Indication* IE in the *RL Information* IE:]

  - [FDD - The DRNC shall setup the E-DCH resources, as requested or as configured in the UE context, on the Radio Links indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]

- [FDD - The DRNC may include the E-AGCH And E-RGCH/E-HICH FDD Scrambling Code IE and shall include the E-RGCH/E-HICH Channelisation Code IE and the corresponding E-HICH Signature Sequence IE and the DRNC may include the corresponding E-RGCH Signature Sequence IE in the E-DCH FDD DL Control Channel Information IE in the RADIO LINK RECONFIGURATION RESPONSE message for every RL indicated by the E-DCH RL Indication IE, set to "E-DCH", in the RL Information IE.]

- [FDD - The DRNC shall remove the E-DCH resources, if any, on the Radio Links, that are indicated by the *E-DCH RL Indication* set to "Non E-DCH".]

- [FDD - For each RL for which the *E-DCH RL Indication* IE is set to "E-DCH", and which has or can have a common generation of E-RGCH information with another RL (current or future) when the DRNS would contain the E-DCH serving RL, the DRNS shall include the *E-DCH RL Set ID* IE in the RADIO LINK RECONFIGURATION RESPONSE message. The value of the *E-DCH RL Set ID* IE shall allow the SRNC to identify the E-DCH RLs that have or can have a common generation of E-RGCH information.]

[FDD - Serving E-DCH Radio Link Change:]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Serving E-DCH RL* IE, this indicates the new Serving E-DCH Radio Link:]

- [FDD - If the old Serving E-DCH RL is within this DRNS, the DRNS shall de-allocate the E-AGCH resources of the old Serving E-DCH Radio Link.]

- [FDD - If the new Serving E-DCH RL is within this DRNS:]

  - [FDD - The DRNS shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the new Serving E-DCH Radio Link and include these E-RNTI identifiers along with the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the *RL Information Response* IE for the indicated RL in the RADIO LINK RECONFIGURATION RESPONSE message.]

  - [FDD - The DRNS may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the RADIO LINK RECONFIGURATION RESPONSE message for the initial grant for the new serving E-DCH RL.]

  - [FDD - If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the DRNS shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

  - [FDD - If a serving cell change is performed the RADIO LINK RECONFIGURATION RESPONSE message may contain invalid data (see 9.2.2.4C).]

  - [FDD - The DRNS may include the *Default Serving Grant in DTX Cycle 2* IE in the RADIO LINK RECONFIGURATION RESPONSE message for the new serving E-DCH RL.]

- [FDD – The DRNS may include the *E-RGCH/E-HICH Channelisation Code* IE and/or the *E-HICH Signature Sequence* IE and/or the *E-RGCH Signature Sequence* IE or may alternatively include the *E-RGCH Release Indicator* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION RESPONSE message for every E-DCH Radio Links in the DRNS.]

- [FDD - If the DRNS has no valid data for the *E-RGCH and E-HICH Channelisation Code* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION RESPONSE message, then it shall insert the *E-RGCH and E-HICH Channelisation Code Validity Indicator* IE in the *E-DCH FDD DL Control Channel Information* IE, to indicate that the *E-RGCH and E-HICH Channelisation Code* IE contains invalid data.]

[FDD - E-DCH Modification:]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH FDD Information To Modify* IE, then:]

- [FDD - If the *E-DCH FDD Information To Modify* IE contains a *E-DCH MAC-d Flow Specific Information* IE which includes the *Allocation/Retention Priority* IE, the DRNS shall apply the new Allocation/Retention Priority to this E-DCH in the new configuration according to Annex A.]

- [FDD - If the *TNL QoS* IE is included for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [FDD - If *Traffic Class* IE is included for an E-DCH MAC-d flow the DRNS may use the *Traffic Class* IE for a specific E-DCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. The DRNC should ignore the *Traffic Class* IE if the *TrCH Source Statistics Descriptor* IE for this specific E-DCH MAC-d flow indicates the value "RRC".]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Data Description Indicator* IE, the DRNC shall use the DDI values indicated in the *Data Description Indicator* IE in the new configuration.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH FDD Information To Modify* IE, the DRNS shall use this information to optimise MAC-e scheduling decisions.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Maximum Number of Retransmissions for E-DCH* IE for an E-DCH MAC-d flow in the *E-DCH FDD Information To Modify* IE, then the DRNS shall use this information to report if the maximum number of retransmissions has been exceeded.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH HARQ Power Offset FDD* IE in the *E-DCH FDD Information To Modify* IE for an E-DCH MAC-d flow the DRNS shall use this information for calculating the unquantised gain factor for an E-TFC ($\beta_{ed,j,uq}$)as defined in [10].]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the E-DCH MAC-d Flow Multiplexing List IE for an E-DCH MAC-d flow the DRNS shall use this information for the related resource allocation operation.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the E-DCH Grant Type and it is indicated as being "E-DCH Non-Scheduled Transmission Grant" for an E-DCH MAC-d flow the DRNS shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant IE, if included, for the related resource allocation operation.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the E-DCH Grant Type and it is indicated as being "E-DCH Scheduled Transmission Grant" for an E-DCH MAC-d flow the DRNS shall assume scheduled grants being configured for that E-DCH MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Logical Channel To Add* or *E-DCH Logical Channel To Delete* IEs, the DRNS shall use this information to add/delete the indicated logical channels. When an logical channel is deleted, all its associated configuration data shall also removed.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Logical Channel To Modify* IE, the DRNS shall use this information to modify the indicated logical channels.]

    - [FDD - If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Priority Indicator* IE, the DRNS shall apply the values in the new configuration.]

    - [FDD - If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Information* IE, the DRNS shall apply the values in the new configuration.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Bundling Mode Indicator* IE for an E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information To Modify* IE and the *Bundling Mode Indicator* IE is set to "Bundling" and the *E-TTI* IE is set to "2ms", then the DRNS shall use the bundling mode for the E-DCH UL data frames for the related MAC-d flow, otherwise the DRNS shall use the non-bundling mode for the E-DCH UL data frames for the related MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the DRNS shall use this information for the related resource allocation operation.]

- [FDD - If the E-DCH serving RL is in this DRNS, the DRNS may choose to change the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission. In this case the DRNS shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Maximum Bitrate* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Processing Overload Level* IE, then if the DRNS could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH ReferencePower Offset* IE, then the DRNS may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-AGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the DRNS may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Power Offset for Scheduling Info* IE, then the DRNS shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *SixteenQAM UL Operation Indicator* IE in the *E-DCH FDD Information To Modify* IE, the DRNS shall activate/deactivate SixteenQAM UL Operation for the RL in accordance with the *SixteenQAM UL Operation Indicator* IE.]

  - [FDD – If SixteenQAM UL Operation is activated, then the DRNS shall base the handling of the Relative Grant signalling on Scheduling Grant Table 2 according to [41]. If SixteenQAM UL Operation is deactivated, then the DRNS shall base the handling of the Relative Grant signalling on Scheduling Grant Table 1 according to [41].]

- [FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH DL Control Channel Grant Information* IE in the *E-DCH FDD Information To Modify* IE, the DRNS may modify E-AGCH Channelisation Code, E-RGCH/E-HICH Channelisation Code, E-RGCH Signature Sequence and/or E-HICH Signature Sequence for the E-DCH RL indicated by the *E-DCH RL ID* IE. The DRNC shall then report the modified configuration which is used in the new configuration specified in the *E-DCH FDD DL Control Channel Information* IE for each E-DCH RL in the RADIO LINK RECONFIGURATION RESPONSE message.]

[FDD - E-DCH MAC-d Flow Addition:]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-DCH MAC-d Flows To Add* IE, then the DRNS shall use this information to add the indicated E-DCH MAC-d flows.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH MAC-d Flows To Add* IE, then:]

- [FDD - The DRNS may use the *Traffic Class* IE for a specific E-DCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B. If *TrCH Source Statistics Descriptor* IE is present with the value "RRC" in the *E-DCH MAC-d Flows Information* IE, then the DRNC should ignore the *Traffic Class* IE.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel Information IE* in the *E-DCH MAC-d Flows To Add* IE, the DRNS shall use this information to optimise MAC-e scheduling decisions.]

[FDD - E-DCH MAC-d Flow Deletion:]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-DCH MAC-d Flows To Delete* IEs, then the DRNS shall use this information to delete the indicated E-DCH MAC-d flows. When an E-DCH MAC-d flow is deleted, all its associated configuration shall also be removed.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-DCH MAC-d Flows To Delete* IE requesting the deletion of all remaining E-DCH MAC-d flows for the UE Context, then the DRNC shall delete the E-DCH configuration from the UE Context and release the E-DCH resources.]

[TDD - Intra- DRNS Serving E-DCH Radio Link Change:]

[TDD- If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Serving RL* IE, this indicates the new Serving E-DCH Radio Link:]

- [TDD - In the new configuration the DRNS shall de-allocate the E-DCH resources of the old Serving E-DCH Radio Link and allocate the E-DCH resources for the new Serving E-DCH Radio Link.]

- [3.84Mcps TDD - The DRNS shall allocate E-AGCH parameters corresponding to the E-DCH and include the *E-AGCH Specific Information Response* IE in the *E-DCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [1.28Mcps TDD - The Node B shall allocate E-AGCH parameters and E-HICH parameters corresponding to the E-DCH and include the *E-AGCH Specific Information Response* IE and the *E-HICH Specific Information Response* IE in the *E-DCH Information Response 1.28Mcps* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [7.68Mcps TDD - The DRNS shall allocate E-AGCH parameters corresponding to the E-DCH and include the *E-AGCH Specific Information Response 7.68Mcps* IE in the *E-DCH TDD Information Response 7.68Mcps* IE in the RADIO LINK RECONFIGURATION READY message.]

- [TDD - If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

[TDD - E-PUCH Handling:]

[3.84Mcps TDD and 7.68Mcps TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-PUCH Information* IE, the DRNS shall apply the parameters to the new configuration.]

[1.28Mcps TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-PUCH Information LCR* IE, the DRNS shall apply the parameters to the new configuration]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *E- TFCS Information* IE, the DRNS shall apply the beta parameters to the new configuration.]

[3.84Mcps TDD - E-DCH Setup:]

[3.84Mcps TDD - the radio link may be reconfigured to support E-DCH by including the appropriate E-DCH information elements: *E-DCH Serving RL* IE, *E-PUCH Information* IE, *E-TFCS Information TDD* IE, *E-DCH MAC-d Flows to Add* IE and *E-DCH TDD Information* IE.]

[1.28Mcps TDD - E-DCH Setup:]

[1.28cps TDD - the radio link may be reconfigured to support E-DCH by including the appropriate E-DCH information elements: *E-DCH Serving RL* IE, *E-PUCH Information LCR* IE, *E-TFCS Information TDD* IE, *E-DCH MAC-d Flows to Add* IE and *E-DCH TDD Information LCR* IE.]

[7.68Mcps TDD - E-DCH Setup:]

[7.68Mcps TDD - the radio link may be reconfigured to support E-DCH by including the appropriate E-DCH information elements: *E-DCH Serving RL* IE, *E-PUCH Information* IE, *E-TFCS Information TDD* IE, *E-DCH MAC-d Flows to Add* IE and *E-DCH TDD Information 7.68Mcps* IE.]

[TDD- E-DCH MAC-d Flow Addition/Deletion:]

[TDD- If the RADIO LINK RECONFIGURATION REQUEST message includes any *E-DCH MAC-d Flows To Add* or E-DCH *MAC-d Flows To Delete* IEs, then the DRNS shall use this information to add/delete the indicated E-DCH MAC-d flows. When an E-DCH MAC-d flow is deleted, all its associated configuration data shall also be removed.]

[TDD- If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-DCH MAC-d Flows To Delete* IE requesting the deletion of all remaining E-DCH MAC-d flows for the UE Context, then the DRNS shall delete the E-DCH configuration from the UE Context and release the E-DCH resources.]

[TDD- If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH MAC-d Flows To Add* IE, then:]

- [TDD- If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH MAC-d Flows To Add* IE, the DRNS shall use this information to optimise MAC-e scheduling decisions.]

- [1.28Mcps TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-es Maximum Bit Rate LC*R IE in the *E-DCH Logical Channel Information* IE in the *E-DCH MAC-d Flows To Add* IE, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

[3.84Mcps TDD - E-DCH Non-scheduled allocations:]

[3.84Mcps TDD - The DRNS shall determine any non-scheduled resource to be granted for the radio link, and return this in the *E-DCH Non-scheduled Grant Information TDD* IE in the *E-DCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

[1.28Mcps TDD - E-DCH Non-scheduled allocations:]

[1.28Mcps - The DRNS shall determine any non-scheduled resource to be granted for the radio link, and return this in the *E-DCH Non-scheduled Grant Information LCR TDD* IE in the *E-DCH Information Response 1.28Mcps* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

[7.68Mcps TDD - E-DCH Non-scheduled allocations:]

[7.68Mcps TDD - The DRNS shall determine any non-scheduled resource to be granted for the radio link, and return this in the *E-DCH Non-scheduled Grant Information* 7.68Mcps *TDD* IE in the *E-DCH Information Response* 7.68Mcps IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

[3.84Mcps TDD - E-DCH Modification:]

[3.84Mcps TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH TDD Information* IE, then:]

- [3.84Mcps TDD - If the *E-DCH TDD Information* IE includes the *E-DCH TDD Maximum Bitrate* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [3.84Mcps TDD - If the *E-DCH TDD Information* IE includes the *E-DCH Processing Overload Level* IE, then if the DRNS could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of a processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [3.84Mcps TDD – If the *E-DCH TDD Information* IE includes the *E-DCH Power Offset for Scheduling Info* IE, then the DRNS shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

[1.28Mcps TDD - E-DCH Modification:]

[1.28Mcps TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH TDD Information LCR* IE, then:]

- [1.28Mcps TDD - If the *E-DCH TDD Information LCR* IE includes the *E-DCH Physical Layer Category LCR* IE or *Extended E-DCH Physical Layer Category LCR* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [1.28Mcps TDD - If the *E-DCH TDD Information LCR* IE includes the *E-DCH Processing Overload Level* IE, then if the DRNS could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of a processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [1.28Mcps TDD – If the *E-DCH TDD Information LCR* IE includes the *E-DCH Power Offset for Scheduling Info* IE, then the DRNS shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [1.28Mcps TDD - If the *E-DCH TDD Information LCR* IE includes the *Maximum Number of Retransmission for Scheduling Info LCR* IE and the *E-DCH Retransmission timer for Scheduling Info LCR* IE, then the DRNS shall use these parameters for the transmission of scheduling information without any MAC-d PDUs.]

[7.68Mcps TDD - E-DCH Modification:]

[7.68Mcps TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH TDD Information 7.68Mcps* IE, then:]

- [7.68Mcps TDD - If the *E-DCH TDD Information 7.68Mcps* IE includes the *E-DCH TDD Maximum Bitrate 7.68Mcps* IE for an E-DCH, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [7.68Mcps TDD - If the *E-DCH TDD Information 7.68Mcps* IE includes the *E-DCH Processing Overload Level* IE, then if the DRNS could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of a processing issue, the DRNS shall notify the SRNC by initiating the Radio Link Failure procedure.]

- [7.68Mcps TDD – If the *E-DCH TDD Information 7.68Mcps* IE includes the *E-DCH Power Offset for Scheduling Info* IE, then the DRNS shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

[TDD- If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH TDD Information To Modify* IE, then:]

- [TDD- If the *E-DCH TDD Information To Modify* IE contains a *E-DCH MAC-d Flow Specific Information* IE which includes the *Allocation/Retention Priority* IE, the DRNS shall apply the new Allocation/Retention Priority to this E-DCH in the new configuration according to Annex A.]

- [TDD- If the *E-DCH TDD Information To Modify* IE contains a *TNL QoS* IE for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [TDD- If the *E-DCH TDD Information To Modify* IE includes the *Maximum Number of Retransmissions for E-DCH* IE for an E-DCH MAC-d flow then the DRNS shall use this information to report if the maximum number of retransmissions has been exceeded.]

- [1.28Mcps TDD - If the *E-DCH TDD Information To Modify* IE includes the *E-DCH MAC-d Flow Retransmission Timer* IE for an E-DCH MAC-d flow then the DRNS shall use this information to set the retransmission timer.]

- [TDD– If the *TNL QoS* IE is included in the *E-DCH TDD Information to Modify* IE for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [TDD- If the *E-DCH TDD Information To Modify* IE includes the *E-DCH HARQ Power Offset TDD* IE for an E-DCH MAC-d flow the DRNS shall use this new power offset value.]

- [TDD- If the *E-DCH TDD Information To Modify* IE includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the DRNS shall use this information for the related resource allocation operation.]

- [TDD- If the *E-DCH TDD Information To Modify* IE contains the *E-DCH Grant Type* IE, the DRNS shall treat the E-DCH MAC-d flow as Scheduled or Non-scheduled accordingly.]

- [TDD- If the *E-DCH TDD Information To Modify* IE includes the *E-DCH Logical Channel To Add* or *E-DCH Logical Channel To Delete* IEs, the DRNS shall use this information to add/delete the indicated logical channels. When a logical channel is deleted, all its associated configuration data shall also removed.]

- [TDD- If the *E-DCH TDD Information To Modify* IE includes the *E-DCH Logical Channel To Modify* IE, the DRNS shall use this information to modify the indicated logical channels:]

    - [TDD - If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Priority Indicator* IE, the DRNS shall apply the values in the new configuration.]

    - [TDD - If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Information* IE, the DRNS shall apply the values in the new configuration.]

    - [TDD - If the *E-DCH Logical Channel To Modify* IE includes *MAC-es Guaranteed Bit Rate* IE, the Node B shall apply the values in the new configuration.]

    - [TDD - If the *E-DCH Logical Channel To Modify* IE includes E-*DCH DDI Value* IE, the DRNS shall apply the values in the new configuration.]

    - [1.28Mcps TDD - If the *E-DCH Logical Channel To Modify* IE includes *MAC-es Maximum Bit Rate LC*R IE, the DRNS shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [TDD– If the *E-DCH TDD Information To Modify* IE includes the *MAC-e Reset Indicator* IE, then the DRNS shall use this value to determine whether MAC-e Reset is performed in the UE for sending the HARQ Failure Indication.]

General:

If the requested modifications are allowed by the DRNS, and if the DRNS has successfully allocated the required resources and changed to the new configuration, the DRNC shall respond to the SRNC with the RADIO LINK RECONFIGURATION RESPONSE message.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *RL Specific DCH Information* IE, *HS-DSCH Information* IE, *HS-DSCH Information To Modify Unsynchronised* IE, *HS-DSCH MAC-d Flows To Add* IE, [FDD - *RL Specific E-DCH Information* IE] [TDD - *E-DCH MAC-d Flows to Add* IE], the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for any Transport Channel [FDD - for which the *Transport Bearer Not Requested Indicator* IE is not included], HS-DSCH MAC-d flow being added or E-DCH MAC-d flow [FDD - for which the *Transport Bearer Not Requested Indicator* IE is not included] being added, or any Transport Channel [FDD - for which the *Transport Bearer Not Requested Indicator* IE was not included] or HS-DSCH MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE.

The DRNC shall include the *Transport Layer Address* IE and the *Binding ID* IE in the RADIO LINK RECONFIGURATION RESPONSE message for any Transport Channel [FDD - for which the *Transport Bearer Not Requested Indicator* IE is not included], HS-DSCH MAC-d flow being added or E-DCH MAC-d flow [FDD - for which the *Transport Bearer Not Requested Indicator* IE is not included] being added, or any Transport Channel [FDD - for which the *Transport Bearer Not Requested Indicator* IE was not included], HS-DSCH MAC-d flow or E-DCH MAC-d flow [FDD - for which the *Transport Bearer Not Requested Indicator* IE was not included] being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE. The detailed frame protocol handling during transport bearer replacement is described in [4], subclause 5.10.1, and in [32], subclause 5.3.2.

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer Shall not be Established" for a DCH or an E-DCH MAC-d flow being added, then the DRNC shall not establish a transport bearer for the concerned DCH or E-DCH MAC-d flow and shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding DCH or E-DCH MAC-d flow in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer may not be Established" for a DCH or an E-DCH MAC-d flow being added and:]

- [FDD - if the DRNC establishes a transport bearer for the concerned DCH or E-DCH MAC-d flow, the DRNC shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of a transport bearer for the DCH or E-DCH MAC-d flow being established.]

- [FDD - if the DRNC does not establish a transport bearer for the concerned DCH or E-DCH MAC-d flow, the DRNC shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding DCH or E-DCH MAC-d flow in the RADIO LINK RECONFIGURATION RESPONSE message.]

In the case of a set of co-ordinated DCHs requiring a new transport bearer on the Iur interface, the DRNC shall include the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE only for one of the DCHs [FDD - for which the *Transport Bearer Not Requested Indicator* IE is not included] in the set of co-ordinated DCHs.

In the case of a Radio Link being combined with another Radio Link within the DRNS, the DRNC shall include the *Transport Layer Address* IE and the *Binding ID* IE [FDD for the concerned DCH for which the *Transport Bearer Not Requested Indicator* IE is not included]in the *DCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message for only one of the combined Radio Links.

[FDD - In the case of an E-DCH RL being combined with another E-DCH RL within the DRNS, the *E-DCH FDD Information Response* IE shall be included only for one of the combined E-DCH RLs.]

Any allowed rate for the uplink of a modified DCH provided for the old configuration will not be valid for the new configuration. If the DRNS needs to limit the user rate in the uplink of a DCH due to congestion caused by the UL UTRAN Dynamic Resources (see subclause 9.2.1.79) in the new configuration for a Radio Link, the DRNC shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Allowed UL Rate* IE in the *DCH Information Response* IE for this Radio Link.

Any allowed rate for the downlink of a modified DCH provided for the old configuration will not be valid for the new configuration. If the DRNS needs to limit the user rate in the downlink of a DCH due to congestion caused by the DL UTRAN Dynamic Resources (see subclause 9.2.1.79) in the new configuration for a Radio Link, the DRNC shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Allowed DL Rate* IE in the *DCH Information Response* IE for this Radio Link.

The DRNS decides the maximum and minimum SIR for the uplink of the Radio Link(s), and the DRNC shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Maximum Uplink SIR* IE and *Minimum Uplink SIR* IE for each Radio Link when these values are changed.

[FDD - If the DL TX power upper or lower limit has been re-configured, the DRNC shall include the new value(s) in the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK RECONFIGURATION RESPONSE message. The DRNS shall not transmit with a higher power than indicated by the *Maximum DL TX Power* IE or lower than indicated by the *Minimum DL TX Power* IE on any DL DPCH or on the F-DPCH of the RL except, if the UE Context is configured to use DPCH in the downlink, during compressed mode, when the δP_{curr}, as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

[3.84 Mcps TDD and 7.68 Mcps TDD - If the DL TX power upper or lower limit has been re-configured, the DRNC shall include the new value(s) in the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK RECONFIGURATION RESPONSE message. If the maximum or minimum power needs to be different for particular DCH type CCTrCHs, the DRNC shall include the new value(s) for that CCTrCH in the *CCTrCH Maximum DL TX Power* IE and *CCTrCH Minimum DL TX Power.* The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE/*CCTrCH Maximum DL TX Power* IE or lower than indicated by the appropriate *Minimum DL TX Power* IE/*CCTrCH Minimum DL TX Power* IE on any DL DPCH within each CCTrCH of the RL.]

[1.28 Mcps TDD - If the DL TX power upper or lower limit has been re-configured, the DRNC shall include the new value(s) in the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK RECONFIGURATION RESPONSE message. If the maximum or minimum power needs to be different for particular timeslots within a DCH type CCTrCH, the DRNC shall include the new value(s) for that timeslot in the *Maximum DL TX Power* IE and *Minimum DL TX Power* within the *DL Timeslot Information LCR* IE. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE or lower than indicated by the appropriate *Minimum DL TX Power* IE on any DL DPCH within each timeslot of the RL.]

8.3.7.3 Unsuccessful Operation
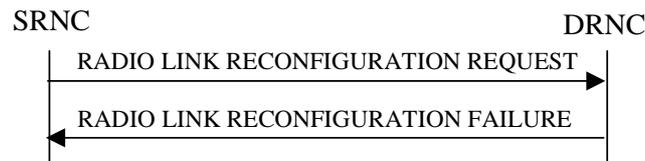
Figure 15: Unsynchronised Radio Link Reconfiguration procedure, Unsuccessful Operation

If the DRNS cannot allocate the necessary resources for all the new DCHs in a set of co-ordinated DCHs requested to be added, it shall reject the Unsynchronised Radio Link Reconfiguration procedure as having failed.

If the requested Unsynchronised Radio Link Reconfiguration procedure fails for one or more Radio Link(s), the DRNC shall send the RADIO LINK RECONFIGURATION FAILURE message to the SRNC, indicating the reason for failure.

Typical cause values are:

Radio Network Layer Causes:

- UL Scrambling Code Already in Use;

- DL Radio Resources not Available;

- UL Radio Resources not Available;

- Requested Configuration not Supported;

- CM not Supported;

- E-DCH not supported;

- [FDD - Continuous Packet Connectivity DTX-DRX operation not Supported;]

- [FDD - Continuous Packet Connectivity HS-SCCH less operation not Supported;]

- [FDD - MIMO not supported;]

- [FDD - E-DCH TTI2ms not supported;]

- [FDD - Continuous Packet Connectivity DTX-DRX operation not available;]

- [FDD - Continuous Packet Connectivity UE DTX Cycle not available;]

- [FDD - MIMO not available;]

- [FDD - SixteenQAM UL not Supported;]

- HS-DSCH MAC-d PDU Size Format not supported;

- [FDD - E-DPCCH Power Boosting not supported.]

Miscellaneous Causes:

- Control Processing Overload;

- Not enough User Plane Processing Resources.

8.3.7.4 Abnormal Conditions

If only a subset of all the DCHs belonging to a set of co-ordinated DCHs is requested to be deleted, the DRNS shall reject the Unsynchronised Radio Link Reconfiguration procedure as having failed, and the DRNC shall send the RADIO LINK RECONFIGURATION FAILURE message to the SRNC.

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD - or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"], the DRNS shall reject the Unsynchronised Radio

Link Reconfiguration procedure, and the DRNC shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message includes a *DCHs To Modify* IE or *DCHs To Add* IE with multiple *DCH Specific Info* IEs, and if the DCHs in the *DCHs To Modify* IE or *DCHs To Add* IE do not have the same *Transmission Time Interval* IE in the *Semi-static Transport Format Information* IE, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *DL Reference Power Information* IE, but the power balancing is not active in the indicated RL(s), the DRNS shall reject the Unsynchronised Radio Link Reconfiguration procedure as having failed and the DRNC shall respond the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Common" in the existing RL(s) but the *DL Reference Power Information* IE includes the *Individual DL Reference Power Information* IE, the DRNS shall reject the Unsynchronised Radio Link Reconfiguration procedure as having failed and the DRNC shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Individual" in the existing RL(s) but the *DL Reference Power Information* IE includes the *Common DL Reference Power* IE, the DRNS shall reject the Unsynchronised Radio Link Reconfiguration procedure as having failed and the DRNC shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

If the RADIO LINK RECONFIGURATION REQUEST message contains the *Transport Layer Address* IE or the *Binding ID* IE when establishing a transport bearer for any Transport Channel or HS-DSCH MAC-d flow being added, or any Transport Channel or HS-DSCH MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE., and not both are present for a transport bearer intended to be established, the DRNC shall reject the Unsynchronised Radio Link Reconfiguration procedure, and the DRNC shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message contains any of the *HS-DSCH Information To Modify* IE, *HS-DSCH MAC-d Flows To Add* IE or *HS-DSCH MAC-d Flows To Delete* IE in addition to the *HS-DSCH Information* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message contains any of the *HS-DSCH Information To Modify* IE, *HS-DSCH MAC-d Flows To Add* IE, *HS-DSCH MAC-d Flows To Delete* IE or *HS-PDSCH RL ID* IE and the Serving HS-DSCH Radio Link is not in the DRNS, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH Information* IE and does not include the *HS-PDSCH RL-ID* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-PDSCH RL-ID* IE indicating a Radio Link not existing in the UE Context, the DRNS shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message contains any of the *HS-DSCH Information* IE*, HS-DSCH Information To Modify* IE, or *HS-DSCH MAC-d Flows To Add* IE and if in the new configuration the Priority Queues associated with the same *HS-DSCH MAC-d Flow ID* IE have the same *Scheduling Priority Indicator* IE value, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If, in the new configuration, the concerned UE Context is configured to use "Indexed MAC-d PDU Size" for an HS-DSCH but there exist a priority queue of the MAC-d flows of the HS-DSCH that is configured to use Maximum MAC-d PDU Size Extended, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If, in the new configuration, the concerned UE Context is configured to use "Flexible MAC-d PDU Size" for an HS-DSCH but there exist a priority queue of the MAC-d flows of the HS-DSCH that is configured to use MAC-d PDU Size Index, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message includes *HS-DSCH Information* IE and the HS-DSCH is already configured in the UE Context, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the *E-DCH FDD Information* IE is present in the RADIO LINK RECONFIGURATION REQUEST message, but the *E-DPCH Information* IE is not present or if any of the *Maximum Set of E-DPDCHs* IE, *Puncture Limit* IE, *E-TFCS Information* IE*, E-TTI* IE*, E-DPCCH Power Offset* IE, *HS-DSCH Configured Indicator* IE, are not present in the *E-DPCH Information* IE, then the DRNS shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If any of the *HS-DSCH Configured Indicator* IE*, Maximum Set of E-DPDCHs* IE, *Puncture Limit* IE or *E-TTI* IE are present in the *E-DPCH Information* IE and the *E-DCH FDD Information* IE is not present in the RADIO LINK RECONFIGURATION REQUEST message, then the DRNS shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH RL Indication* IE set to "E-DCH", but no *E-DCH FDD Information* IE, and the UE Context is not configured for E-DCH, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH FDD Information* IE but no *E-DCH RL Indication* IE set to "E-DCH", then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the RADIO LINK RECONFIGURATION REQUEST message contains the *HS-PDSCH RL ID* IE and/or the *Serving E-DCH RL* IE and if both HS-DSCH and E-DCH are configured in the new configuration but the Serving HS-DSCH Radio Link and the Serving E-DCH Radio Link are not in the same cell then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message contains the *HS-PDSCH RL ID* IE and the *E-DPCH Information* IE which includes the *HS-DSCH Configured Indicator* IE set as "HS-DSCH not configured" then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message contains any of the *E-DCH FDD Information To Modify* IE, *E-DCH MAC-d Flows To Add* IE or *E-DCH MAC-d Flows To Delete* IE in addition to the *E-DCH FDD Information* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message contains any of the *E-DCH FDD Information To Modify* IE, *E-DCH MAC-d Flows To Add* IE, *E-DCH MAC-d Flows To Delete* IE and the UE Context is not configured for E-DCH, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH FDD Information To Modify* IE deleting the last remaining E-DCH Logical Channel of an E-DCH MAC-d Flow, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes *E-DCH FDD Information* IE and the E-DCH is already configured in the UE Context, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE in addition to the *Continuous Packet Connectivity DTX-DRX Information* IE, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity HS-SCCH less Deactivate Indicator* IE in addition to the *Continuous Packet Connectivity HS-SCCH less Information* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity HS-SCCH less Deactivate Indicator* IE while the Continuous Packet Connectivity HS-SCCH less configuration isn't configured in the DRNC, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE while the Continuous Packet Connectivity *DTX-DRX* configuration isn't

configured in the DRNC, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *DRX Information To Modify* IE in *Continuous Packet Connectivity DTX-DRX Information To Modify* IE while the Continuous Packet Connectivity DRX configuration is not configured in the DRNC, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH Indicator* IE set to "Uplink DCH only" but no *Transport Format Set* IE for the uplink for this DCH and the DRNC had ignored the configuration of Transport Format Set for uplink, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH Indicator* IE set to "Downlink DCH only" but no *Transport Format Set* IE for the downlink for this DCH and the DRNC had ignored the configuration of Transport Format Set for downlink, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message contains the *Transport Bearer Not Requested Indicator* IE for a DCH or an E-DCH MAC-d flow but does not contain the corresponding *DCH ID* IE and the *Unidirectional DCH indicator* IE set to "Uplink DCH only" for the DCH in *DCH Information To Add* IE or does not contain the corresponding *E-DCH MAC-d Flow ID* IE in *E-DCH MAC-d Flows Information* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the concerned UE Context is configured to apply UL DPCCH Slot Format 0 or 2 and execute Continuous Packet Connectivity DTX-DRX operation, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the concerned UE Context is configured to apply MIMO or allowed to apply 64QAM but is not configured to use flexible MAC-d PDU Size, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE for a DCH in the *RL Specific DCH Information* IE but does not include the *DCH ID* IE for the DCH in the *DCHs to Add* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE for an E-DCH MAC-d flow in the *RL Specific E-DCH Information* IE but does not include the *E-DCH MAC-d flow ID* IE for the E-DCH MAC-d flow in the *E-DCH MAC-d flows Information* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message contains the *Continuous Packet Connectivity DTX-DRX Information* IE but the concerned UE Context is not previously configured to use F-DPCH, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message]

[FDD - If the concerned UE Context is configured to have the Serving E-DCH Radio Link but there is at least one E-DCH MAC-d flow which the transport bearer is not configured for the Serving E-DCH Radio Link in DRNS, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE for a DCH or an E-DCH MAC-d Flow for a specific RL and the specific RL is combined with existing RL which the transport bearer is established for the DCH or the E-DCH MAC-d Flow in the DRNS, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

8.3.8 Physical Channel Reconfiguration

8.3.8.1 General

The Physical Channel Reconfiguration procedure is used by the DRNS to request the SRNC to reconfigure one of the configured physical channels.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The DRNS shall not initiate the Physical Channel Reconfiguration procedure if a Prepared Reconfiguration exists as defined in subclause 3.1, or if a Synchronised Radio Link Reconfiguration Preparation procedure, Unsynchronised Radio Link Reconfiguration procedure or Radio Link Deletion procedure is ongoing for the relevant UE context.

8.3.8.2 Successful Operation
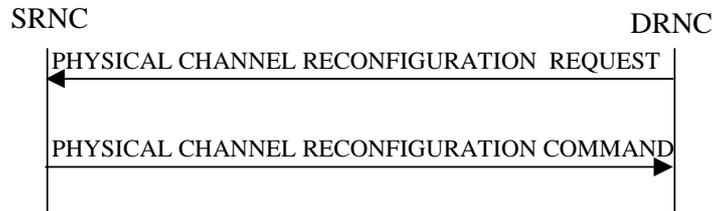
Figure 16: Physical Channel Reconfiguration procedure, Successful Operation

When the DRNC detects the need to modify one of its physical channels, it shall send a PHYSICAL CHANNEL RECONFIGURATION REQUEST to the SRNC.

The PHYSICAL CHANNEL RECONFIGURATION REQUEST message contains the new value(s) of the physical channel parameter(s) of the radio link for which the DRNC is requesting the reconfiguration.

[FDD - If compressed mode is prepared or active and at least one of the downlink compressed mode methods is "SF/2", the DRNC shall include the *Transmission Gap Pattern Sequence Scrambling Code Information* IE in the *DL Code Information* IE in the PHYSICAL CHANNEL RECONFIGURATION REQUEST message indicating for each DL Channelisation Code whether the alternative scrambling code will be used or not if the downlink compressed mode methods "SF/2" is activated.]

[TDD - The SRNC shall apply the new values for any of [3.84Mcps TDD - *UL Code Information* IE, *Midamble Shift And Burst Type* IE,] [1.28Mcps TDD - *UL Code Information LCR* IE, *Midamble Shift LCR* IE,] [7.68 Mcps TDD - *UL Code Information 7.68 Mcps* IE, *Midamble Shift And Burst Type 7.68 Mcps* IE,] *TDD DPCH Offset* IE, *Repetition Period* IE, *Repetition Length* IE, or *TFCI presence* IE included in the *UL DPCH Information* IE within the PHYSICAL CHANNEL RECONFIGURATION REQUEST message, otherwise the previous values specified for this DPCH shall still apply.]

[TDD - The SRNC shall apply the new values for any of [3.84Mcps TDD - *DL Code Information* IE, *Midamble Shift And Burst Type* IE,] [1.28Mcps TDD - *DL Code Information LCR* IE, *Midamble Shift LCR* IE,] [7.68 Mcps TDD - *DL Code Information 7.68 Mcps* IE, *Midamble Shift And Burst Type 7.68 Mcps* IE,] *TDD DPCH Offset* IE *Repetition Period* IE, *Repetition Length* IE, or *TFCI presence* IE included in the *DL DPCH Information* IE within the PHYSICAL CHANNEL RECONFIGURATION REQUEST message, otherwise the previous values specified for this DPCH shall still apply.]

[3.84 Mcps TDD - If the PHYSICAL CHANNEL RECONFIGURATION REQUEST includes *HS-PDSCH Timeslot Specific Information* IE the SRNC shall apply the values of the *Midamble Shift And Burst Type* IE for each HS-PDSCH timeslot.]

[1.28 Mcps TDD - If the PHYSICAL CHANNEL RECONFIGURATION REQUEST includes *HS-PDSCH Timeslot Specific Information LCR* IE the SRNC shall apply the values of the *Midamble Shift LCR* IE for each HS-PDSCH timeslot.]

[1.28 Mcps TDD – if the PHYSICAL CHANNEL RECONFIGURATION REQUEST includes the *PLCCH Information* IE the SRNC shall modify, delete or grant a new PLCCH assignment to the indicated timeslot of the indicated UL DCH-type CCTrCH according to its content.]

[7.68 Mcps TDD - If the PHYSICAL CHANNEL RECONFIGURATION REQUEST includes *HS-PDSCH Timeslot Specific Information 7.68 Mcps* IE the SRNC shall apply the values of the *Midamble Shift And Burst Type 7.68 Mcps* IE for each HS-PDSCH timeslot.]

[FDD - If the PHYSICAL CHANNEL RECONFIGURATION REQUEST includes *F-DPCH Slot Format* IE the SRNC shall apply the values of the *F-DPCH Slot Formats* IE for F-DPCH Slot Format operation.]

Upon receipt of the PHYSICAL CHANNEL RECONFIGURATION REQUEST, the SRNC shall decide an appropriate execution time for the change. The SRNC shall respond with a PHYSICAL CHANNEL RECONFIGURATION COMMAND message to the DRNC that includes the *CFN* IE indicating the execution time.

At the CFN, the DRNS shall switch to the new configuration that has been requested, and release the resources related to the old physical channel configuration.

8.3.8.3   Unsuccessful Operation
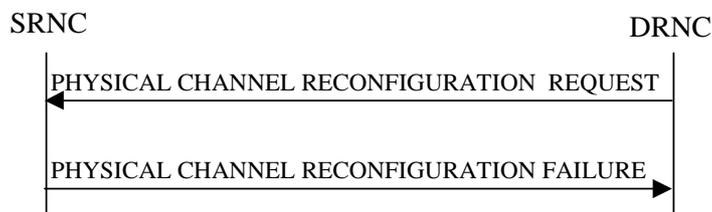
Figure 17: Physical Channel Reconfiguration procedure, Unsuccessful Operation

If the SRNC cannot accept the reconfiguration request it shall send the PHYSICAL CHANNEL RECONFIGURATION FAILURE message to the DRNC, including the reason for the failure in the *Cause* IE.

Typical cause values are:

Radio Network Layer Causes:

- Reconfiguration not Allowed.

8.3.8.4   Abnormal Conditions

While waiting for the PHYSICAL CHANNEL RECONFIGURATION COMMAND message, if the DRNC receives any of the RADIO LINK RECONFIGURATION PREPARE, RADIO LINK RECONFIGURATION REQUEST, or RADIO LINK DELETION REQUEST messages, the DRNC shall abort the Physical Channel Reconfiguration procedure. These messages thus override the DRNC request for physical channel reconfiguration.

When the SRNC receives a PHYSICAL CHANNEL RECONFIGURATION REQUEST message while a Synchronised Radio Link Reconfiguration procedure, Unsynchronised Radio Link Reconfiguration procedure or Radio Link Deletion procedure is ongoing, the SRNC shall ignore the request message and assume that receipt of any of the messages RADIO LINK RECONFIGURATION PREPARE, RADIO LINK RECONFIGURATION REQUEST or RADIO LINK DELETION REQUEST by the DRNC has terminated the Physical Channel Reconfiguration procedure. In this case the SRNC shall not send a PHYSICAL CHANNEL RECONFIGURATION FAILURE message to the DRNC.

8.3.9   Radio Link Failure

8.3.9.1   General

This procedure is started by the DRNS when one or more Radio Links [FDD - or Radio Link Sets][TDD - or CCTrCHs within a Radio Link] are no longer available.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The DRNS may initiate the Radio Link Failure procedure at any time after establishing a Radio Link.

8.3.9.2   Successful Operation
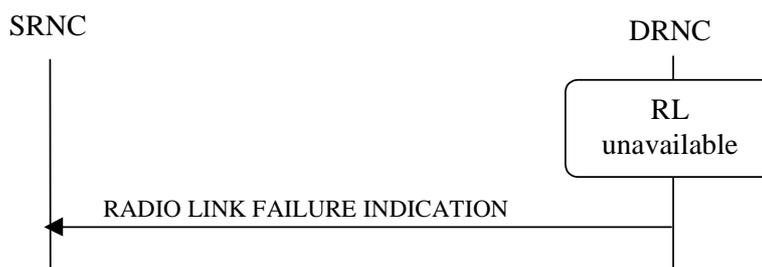
Figure 18: Radio Link Failure procedure, Successful Operation

When the DRNC detects that one or more Radio Link(s) [FDD - or Radio Link Set(s)] [TDD - or CCTrCHs within a Radio Link] are no longer available, it shall send the RADIO LINK FAILURE INDICATION message to the SRNC. The message indicates the failed Radio Link(s) [FDD - or Radio Link Set(s)] [TDD - or CCTrCHs] with the most appropriate cause values defined in the *Cause* IE. If the failure concerns one or more individual Radio Links the DRNC shall include the affected Radio Link(s) using the *RL Information* IE. [FDD - If the failure concerns one or more Radio Link Set(s) the DRNC shall include the affected Radio Link Set(s) using the *RL Set Information* IE.] [TDD - If the failure concerns only the failure of one or more CCTrCHs within in a radio link the DRNC shall include the affected CCTrCHs using the *CCTrCH ID* IE.]

When the RL Failure procedure is used to notify loss of UL synchronisation of a [FDD - Radio Link Set] [TDD - Radio Link or CCTrCHs within a Radio Link] on the Uu interface, the RADIO LINK FAILURE INDICATION message shall be sent with the *Cause* IE set to "Synchronisation Failure" when indicated by the UL synchronisation detection algorithm defined in ref. [10] subclause 4.3 and [22] subclause 4.4.2.

[FDD - When the Radio Link Failure procedure is used to indicate permanent failure in one or more Radio Link(s)/Radio Link Set(s) due to the occurrence of an UL or DL frame with more than one transmission gap caused by one or more compressed mode pattern sequences, the DL transmission shall be stopped and the RADIO LINK FAILURE INDICATION message shall be sent with the *Cause Value* IE set to "Invalid CM Settings". After sending the RADIO LINK FAILURE INDICATION message to notify the permanent failure, the DRNS shall not remove the Radio Link(s)/Radio Link Set(s) from the UE Context, or remove the UE Context itself.]

[FDD – When the Radio Link Failure Procedure is used to indicate E-DCH non serving cell processing issue, the RADIO LINK FAILURE INDICATION shall be sent, with the *Cause* IE set to "Not enough user plane processing resources".]

In the other cases the Radio Link Failure procedure is used to indicate that one or more Radio Link(s) [FDD - or Radio Link Set(s)] are permanently unavailable and cannot be restored. After sending the RADIO LINK FAILURE INDICATION message to notify the permanent failure, the DRNS shall not remove the Radio Link from the UE Context, or remove the UE Context itself. When applicable, the allocation retention priorities associated with the transport channels shall be used by the DRNS to prioritise which Radio Links to indicate as unavailable to the SRNC.

Typical cause values are:

Radio Network Layer Causes:

-    Synchronisation Failure;

-    Invalid CM Settings.

Transport Layer Causes:

-    Transport Resources Unavailable.

Miscellaneous Causes:

-    Control Processing Overload;

-    HW Failure;

-    O&M Intervention;

- Not enough user plane processing resources.

8.3.9.3   Abnormal Conditions

-

8.3.10   Radio Link Restoration

8.3.10.1   General

This procedure is used to notify establishment and re-establishment of UL synchronisation of one or more [FDD - RL Set(s)] [TDD - Radio Links or CCTrCH(s) in a Radio Link] on the Uu interface.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The DRNC may initiate the Radio Link Restoration procedure at any time after establishing a Radio Link.

8.3.10.2   Successful Operation

```
        SRNC                                    DRNC
          |                                       |
          |       RADIO LINK RESTORE INDICATION   |
          |<--------------------------------------|
          |                                       |
          |                                       |
```

Figure 19: Radio Link Restoration procedure, Successful Operation

The DRNC shall send the RADIO LINK RESTORE INDICATION message to the SRNC when and as specified by the UL Uu synchronisation detection algorithm defined in ref. [10] subclause 4.3 and [22] subclause 4.4.2 [FDD -, or when the *Fast Reconfiguration Mode* IE has been included in the RADIO LINK RECONFIGURATION COMMIT message and the DRNS has detected that the UE has changed to the new configuration. The algorithm in ref. [10] shall use the minimum value of the parameters N_INSYNC_IND that are configured in the cells supporting the radio links of the RL Set.]

[TDD - If the re-established UL Uu synchronisation concerns one or more individual Radio Links the DRNC shall include in the RADIO LINK RESTORE INDICATION message the *RL Information* IE to indicate the affected Radio Link(s). If the re-established synchronisation concerns one or more individual CCTrCHs within a radio link the DRNS shall include in the RADIO LINK RESTORE INDICATION message the *RL Information* IE to indicate the affected CCTrCHs.] [FDD - If the re-established UL Uu synchronisation concerns one or more Radio Link Sets the DRNC shall include in the RADIO LINK RESTORE INDICATION message the *RL Set Information* IE to indicate the affected Radio Link Set(s).]

[FDD – The DRNC shall send the RADIO LINK RESTORE INDICATION message when the E-DCH processing issue condition has ceased.]

8.3.10.3   Abnormal Conditions

-

8.3.11   Dedicated Measurement Initiation

8.3.11.1   General

This procedure is used by an SRNS to request the initiation of dedicated measurements in a DRNS.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Dedicated Measurement Initiation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.11.2 Successful Operation
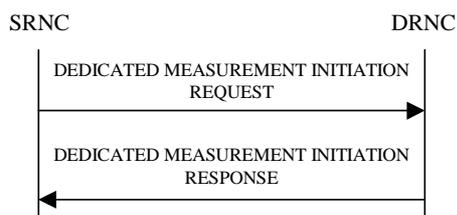
Figure 20: Dedicated Measurement Initiation procedure, Successful Operation

The procedure is initiated with a DEDICATED MEASUREMENT INITIATION REQUEST message sent from the SRNC to the DRNC.

Upon receipt, the DRNC shall initiate the requested dedicated measurement according to the parameters given in the DEDICATED MEASUREMENT INITIATION REQUEST message.

If the Dedicated Measurement Object Type is indicated as being "RL" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all the indicated Radio Links.

[FDD - If the Dedicated Measurement Object Type is indicated as being "RLS" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all the indicated Radio Link Sets.]

[FDD - If the Dedicated Measurement Object Type is indicated as being "ALL RL" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all current and future Radio Links within the UE Context.]

[TDD - If the Dedicated Measurement Object Type is indicated as being "ALL RL" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for one existing DPCH per CCTrCH in each used time slot of current and future Radio Links within the UE Context, provided the measurement type is applicable to the respective DPCH.]

[FDD - If the Dedicated Measurement Object Type is indicated as being "ALL RLS" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all the existing and future Radio Link Sets within the UE Context.]

[TDD - If the *DPCH ID* IE or *DPCH ID 7.68Mcps* IE is provided within the RL Information, the measurement request shall apply for the requested physical channel individually. If no *DPCH ID* IE, *DPCH ID 7.68Mcps* IE or *HS-SICH ID* IE is provided within the RL Information the measurement request shall apply for one existing DPCH per CCTrCH in each used time slot of the Radio Link, provided the measurement type is applicable to this DPCH.]

[TDD - If the *HS-SICH Information* IE is provided within the RL Information, the measurement request shall apply for the requested physical channel individually.]

[TDD - If the *Dedicated Measurement Type* IE is set to "HS-SICH reception quality ", the DRNS shall initiate measurements of the failed, missed and total HS-SICH transmissions on all of the HS-SICH assigned to this UE Context. If either the failed or missed HS-SICH transmission satisfies the requested report characteristics, the DRNS shall report the result of both failed and missed transmission measurements along with the total number of transmissions.]

Report characteristics
The *Report Characteristics* IE indicates how the reporting of the dedicated measurement shall be performed. See also Annex B.

If the *Report Characteristics* IE is set to "On Demand" and if the *CFN* IE is not provided, the DRNS shall report the measurement result immediately in the DEDICATED MEASUREMENT INITIATION RESPONSE message. If the *CFN* IE is provided, it indicates the frame for which the measurement value shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [26].

If the *Report Characteristics* IE is set to "Periodic" and if the *CFN* IE is not provided, the DRNS shall immediately and periodically initiate the Dedicated Measurement Reporting procedure for this measurement, with a frequency as

specified by the *Report Periodicity* IE. If the *CFN* IE is provided, the DRNS shall initiate a Dedicated Measurement Reporting procedure for this measurement at the CFN indicated in the *CFN* IE, and shall repeat this initiation periodically thereafter with a frequency as specified by the *Report Periodicity* IE. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [26].

If the *Report Characteristics* IE is set to "Event A", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises above the requested threshold, as specified by the *Measurement Threshold* IE, and then stays above the threshold for the requested hysteresis time, as specified by the *Measurement Hysteresis Time* IE. If the *Measurement Hysteresis Time* IE is not included, the DRNC shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event B", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls below the requested threshold, as specified by the *Measurement Threshold* IE, and then stays below the threshold for the requested hysteresis time, as specified by the *Measurement Hysteresis Time* IE. If the *Measurement Hysteresis Time* IE is not included, the DRNC shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event C", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises more than the requested threshold specified by the *Measurement Increase/Decrease Threshold* IE, and only when this rise occurs within the requested rising time specified by the *Measurement Change Time* IE. After reporting this type of event, DRNS shall not initiate the next C event reporting for the same measurement during the subsequent time specified by the *Measurement Change Time* IE.

If the *Report Characteristics* IE is set to "Event D", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls more than the requested threshold specified by the *Measurement Increase/Decrease Threshold* IE, and only when this falls occurs within the requested falling time specified by the *Measurement Change Time* IE. After reporting this type of event, the DRNS shall not initiate the next D event reporting for the same measurement during the subsequent time specified by the *Measurement Change Time* IE.

If the *Report Characteristics* IE is set to "Event E", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises above the *Measurement Threshold 1* IE and stays above the threshold for the *Measurement Hysteresis Time* IE (Report A). When the conditions for Report A are met and if the *Report Periodicity* IE is provided, the DRNS shall initiate the Dedicated Measurement Reporting procedure periodically with the requested report frequency specified by the *Report Periodicity* IE. If the conditions for Report A have been met and the measured entity falls below the *Measurement Threshold 2* IE and stays below the threshold for the *Measurement Hysteresis Time* IE, the DRNS shall initiate the Dedicated Measurement Reporting procedure (Report B) and shall terminate any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the DRNS shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the DRNC shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is set to "Event F", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls below the *Measurement Threshold 1* IE and stays below the threshold for the *Measurement Hysteresis Time* IE (Report A). When the conditions for Report A are met and if the *Report Periodicity* IE is provided, the DRNS shall initiate the Dedicated Measurement Reporting procedure periodically with the requested report frequency specified by the *Report Periodicity* IE. If the conditions for Report A have been met and the measured entity rises above the *Measurement Threshold 2* IE and stays above the threshold for the *Measurement Hysteresis Time* IE, the DRNS shall initiate the Dedicated Measurement Reporting procedure (Report B) and shall terminate any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the DRNS shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the DRNC shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is not set to "On –Demand", the DRNS is required to perform reporting for a dedicated measurement object, in accordance with the conditions provided in the DEDICATED MEASUREMENT INITIATION REQUEST message, as long as the object exists. If no dedicated measurement object(s) for which a measurement is defined exists any more, the DRNS shall terminate the measurement locally without reporting this to the SRNC.

If at the start of the measurement, the reporting criteria are fulfilled for any of Event A, Event B, Event E or Event F, the DRNS shall initiate the Dedicated Measurement Reporting procedure immediately, and then continue with the measurements as specified in the DEDICATED MEASUREMENT INITIATION REQUEST message.

Higher layer filtering
The *Measurement Filter Coefficient* IE indicates how filtering of the dedicated measurement values shall be performed before measurement event evaluation and reporting.

The averaging shall be performed according to the following formula.

$$F_n = (1-a) \cdot F_{n-1} + a \cdot M_n$$

The variables in the formula are defined as follows:

F_n is the updated filtered measurement result

F_{n-1} is the old filtered measurement result

M_n is the latest received measurement result from physical layer measurements, the unit used for M_n is the same unit as the reported unit in the DEDICATED MEASUREMENT INITIATION RESPONSE, DEDICATED MEASUREMENT REPORT messages or the unit used in the event evaluation (i.e. same unit as for Fn).

$a = 1/2^{(k/2)}$, where k is the parameter received in the *Measurement Filter Coefficient* IE. If the *Measurement Filter Coefficient* IE is not present, *a* shall be set to 1 (no filtering)

In order to initialise the averaging filter, F_0 is set to M_1 when the first measurement result from the physical layer measurement is received.

Measurement Recovery Behavior:

If the *Measurement Recovery Behavior* IE is included in the DEDICATED MEASUREMENT INITIATION REQUEST message, the DRNS shall, if Measurement Recovery Behavior is supported, include the *Measurement Recovery Support Indicator* IE in the DEDICATED MEASUREMENT INITIATION RESPONSE message and perform the Measurement Recovery Behavior as described in subclause 8.3.12.2.

Response message
If the DRNS was able to initiate the measurement requested by the SRNS it shall respond with the DEDICATED MEASUREMENT INITIATION RESPONSE message. The message shall include the same Measurement ID that was used in the DEDICATED MEASUREMENT INITIATION REQUEST message.

In the case in which the *Report Characteristics* IE is set to "On Demand":

- The DRNC shall include the measurement result in the *Dedicated Measurement Value* IE within the DEDICATED MEASUREMENT INITIATION RESPONSE message.

- If the *CFN Reporting Indicator* IE is set to "FN Reporting Required", the *CFN* IE shall be included in the DEDICATED MEASUREMENT INITIATION RESPONSE message. The reported CFN shall be the CFN at the time when the dedicated measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [26].

- [TDD - If the measurement was made on a particular DPCH, the DEDICATED MEASUREMENT INITIATION RESPONSE message shall include the DPCH ID of that DPCH in the [1.28Mcps TDD and 3.84Mcps TDD - *DPCH ID* IE] [7.68Mcps TDD - *DPCH ID 7.68Mcps* IE].]

- [TDD - If the measurement was made on a particular HS-SICH, the DEDICATED MEASUREMENT INITIATION RESPONSE message shall include the ID of that HS-SICH in the *HS-SICH ID* IE.]

[FDD – If the *Alternative Format Reporting Indicator* IE is set to "Alternative format is allowed" in the DEDICATED MEASUREMENT INITIATION REQUEST message, the DRNC may include the *Extended Round Trip Time* IE in the DEDICATED MEASUREMENT INITIATION RESPONSE message.]

8.3.11.3 Unsuccessful Operation
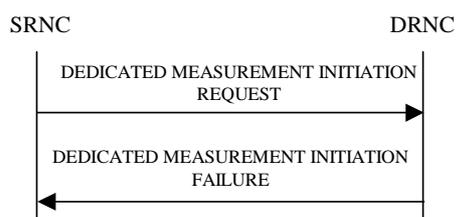
Figure 21: Dedicated Measurement Initiation procedure, Unsuccessful Operation

If the requested measurement cannot be initiated for one of the RL/RLS, the DRNC shall send a DEDICATED MEASUREMENT INITIATION FAILURE message. The message shall include the same *Measurement ID* IE that was used in the DEDICATED MEASUREMENT INITIATION REQUEST message and shall include the *Cause* IE set to an appropriate value.

If the DEDICATED MEASUREMENT INITIATION REQUEST message includes the *Partial Reporting Indicator* IE, the DRNS shall, if partial reporting is supported, separate the unsuccessful measurement initiations from the successful measurement initiations. For the successful measurement initiations on a RL or an RLS, the DRNS shall include the *Successful RL Information* IE or the *Successful RL Set Information* IE for the concerned RL or RLS if the R*eport Characteristics* IE in the DEDICATED MEASUREMENT INITIATION REQUEST message was set to "On Demand". For the unsuccessful measurement initiations, the DRNS shall include the *Individual Cause* IE set to an appropriate value if it differs from the value of the *Cause* IE.

Typical cause values are:

Radio Network Layer Causes:

- Measurement not Supported For The Object

- Measurement Temporarily not Available

Miscellaneous Causes:

- Control Processing Overload

- HW Failure

8.3.11.4   Abnormal Conditions

The allowed combinations of the Dedicated Measurement Type and Report Characteristics Type are shown in the table below marked with "X". For not allowed combinations, the DRNS shall reject the Dedicated Measurement Initiation procedure using the DEDICATED MEASUREMENT INITIATION FAILURE message.

Table 4: Allowed Dedicated Measurement Type and Report Characteristics Type combinations

Dedicated Measurement Type	Report Characteristics Type								
	On Demand	Periodic	Event A	Event B	Event C	Event D	Event E	Event F	On Modification
SIR	X	X	X	X	X	X	X	X	
SIR Error	X	X	X	X	X	X	X	X	
Transmitted Code Power	X	X	X	X	X	X	X	X	
RSCP	X	X	X	X	X	X	X	X	
Rx Timing Deviation	X	X	X	X			X	X	
Round Trip Time	X	X	X	X	X	X	X	X	
Rx Timing Deviation LCR	X	X	X	X			X	X	
HS-SICH Reception Quality	X	X	X	X			X	X	
Angle Of Arrival LCR	X	X							

Rx Timing Deviation 7.68Mcps	X	X	X	X			X	X	
Rx Timing Deviation 3.84Mcps Extended	X	X	X	X			X	X	

If the Dedicated Measurement Type received in the *Dedicated Measurement Type* IE is not defined in ref. [11] or [14] to be measured on the Dedicated Measurement Object Type received in the DEDICATED MEASUREMENT INITIATION REQUEST message, the DRNS shall reject the Dedicated Measurement Initiation procedure.

If the *CFN* IE is included in the DEDICATED MEASUREMENT INITIATION REQUEST message and the *Report Characteristics* IE is other than "Periodic" or "On Demand", the DRNS shall reject the Dedicated Measurement Initiation procedure, and the DRNC shall send a DEDICATED MEASUREMENT INITIATION FAILURE message.

8.3.12 Dedicated Measurement Reporting

8.3.12.1 General

This procedure is used by the DRNS to report the results of the successfully initiated measurements requested by the SRNS with the Dedicated Measurement Initiation procedure.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The DRNC may initiate the Dedicated Measurement Reporting procedure at any time after establishing a Radio Link.

8.3.12.2 Successful Operation

SRNC   DRNC

DEDICATED MEASUREMENT REPORT
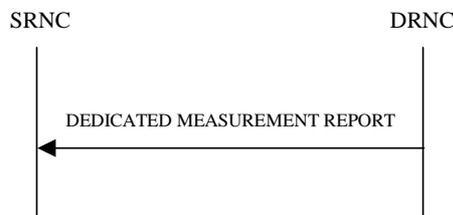
Figure 22: Dedicated Measurement Reporting procedure, Successful Operation

If the requested measurement reporting criteria are met, the DRNS shall initiate the Dedicated Measurement Reporting procedure. If the measurement was initiated (by the Dedicated Measurement Initiation procedure) for multiple dedicated measurement objects, the DRNC may include dedicated measurement values in the *Dedicated Measurement Value Information* IE for multiple objects in the DEDICATED MEASUREMENT REPORT message.

The *Measurement ID* IE shall be set to the Measurement ID provided by the SRNC when initiating the measurement with the Dedicated Measurement Initiation procedure.

If the achieved measurement accuracy does not fulfil the given accuracy requirement specified in ref. [23] and [24] or the measurement is temporarily not available in case Measurement Recovery Behavior is supported, the Measurement not available shall be reported in the *Dedicated Measurement Value Information* IE in the DEDICATED MEASUREMENT REPORT message, otherwise the DRNC shall include the *Dedicated Measurement Value* IE within the *Dedicated Measurement Value Information* IE. If the DRNC was configured to perform the Measurement Recovery Behavior, the DRNC shall indicate Measurement Available to the SRNC when the achieved measurement accuracy again fullfils the given accuracy requirement (see ref. [23] and [24]) and include the *Measurement Recovery Report Indicator* IE in the DEDICATED MEASUREMENT REPORT message if the requested measurement reporting criteria are not met.

If the CFN Reporting Indicator when initiating the measurement with the Dedicated Measurement Initiation procedure was set to "FN Reporting Required", the DRNC shall include the *CFN* IE in the DEDICATED MEASUREMENT REPORT message. The reported CFN shall be the CFN at the time when the dedicated measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [26].

[TDD - If the measurement was made on a particular DPCH, the DEDICATED MEASUREMENT REPORT message shall include the DPCH ID of that DPCH in the [1.28Mcps TDD and 3.84Mcps TDD - *DPCH ID* IE] [7.68Mcps TDD - *DPCH ID 7.68Mcps* IE].]

[TDD - If the measurement was made on a particular HS-SICH, the DEDICATED MEASUREMENT INITIATION RESPONSE message shall include the ID of that HS-SICH in the *HS-SICH ID* IE.]

[FDD – If the *Alternative Format Reporting Indicator* IE was set to "Alternative format is allowed" in the DEDICATED MEASUREMENT INITIATION REQUEST message setting up the measurement to be reported, the DRNC may include the *Extended Round Trip Time* IE in the DEDICATED MEASUREMENT REPORT message.]

8.3.12.3 Abnormal Conditions

-

8.3.13 Dedicated Measurement Termination

8.3.13.1 General

This procedure is used by the SRNS to terminate a measurement previously requested by the Dedicated Measurement Initiation procedure.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Dedicated Measurement Termination procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.13.2 Successful Operation
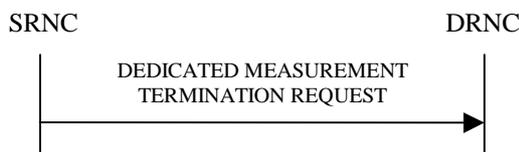
Figure 23: Dedicated Measurement Termination procedure, Successful Operation

This procedure is initiated with a DEDICATED MEASUREMENT TERMINATION REQUEST message, sent from the SRNC to the DRNC.

Upon receipt, the DRNS shall terminate reporting of dedicated measurements corresponding to the received *Measurement ID* IE.

8.3.13.3 Abnormal Conditions

-

8.3.14 Dedicated Measurement Failure

8.3.14.1 General

This procedure is used by the DRNS to notify the SRNS that a measurement previously requested by the Dedicated Measurement Initiation procedure can no longer be reported. When partial reporting is allowed and supported, this procedure shall be used to report that measurement for one or more RL/RLS can no longer be reported.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The DRNC may initiate the Dedicated Measurement Failure procedure at any time after establishing a Radio Link.

8.3.14.2 Successful Operation

SRNC   DRNC

DEDICATED MEASUREMENT FAILURE
INDICATION

Figure 24: Dedicated Measurement Failure procedure, Successful Operation

This procedure is initiated with a DEDICATED MEASUREMENT FAILURE INDICATION message, sent from the DRNC to the SRNC, to inform the SRNC that a previously requested dedicated measurement can no longer be reported. The DRNC has locally terminated the indicated measurement. The DRNC shall include in the DEDICATED MEASUREMENT FAILURE INDICATION message the reason for the failure in the *Cause* IE.

The DRNS shall include *Unsuccessful RL Information* IE or the *Unsuccessful RL Set Information* IE for the concerned RL or RLS if partial reporting is allowed and it is supported. The DRNS shall include the *Individual Cause* IE set to an appropriate value if it differs from the value of the *Cause* IE.

Typical cause values are:

Miscellaneous Causes:

- Control Processing Overload

- HW Failure

- O&M Intervention

8.3.14.3 Abnormal Conditions

-

8.3.15 Downlink Power Control [FDD]

8.3.15.1 General

The purpose of this procedure is to balance the DL transmission powers of one or more radio links for one UE.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Downlink Power Control procedure may be initiated by the SRNC at any time after establishing a Radio Link. If the SRNC has initiated in this DRNS the deletion of the last Radio Link for this UE context, the Downlink Power Control procedure shall not be initiated.

8.3.15.2 Successful Operation

SRNC   DRNC

DL POWER CONTROL REQUEST

Figure 25: Downlink Power Control procedure, Successful Operation

The Downlink Power Control procedure is initiated by the SRNC sending a DL POWER CONTROL REQUEST message to the DRNC.

The *Power Adjustment Type* IE defines the characteristic of the power adjustment.

If the value of the *Power Adjustment Type* IE is "Common", the DRNS shall set the Power Balancing Adjustment Type of the UE Context set to "Common". As long as the Power Balancing Adjustment Type of the UE Context is set to "Common", the DRNS shall perform the power adjustment (see below) for all existing and future radio links for the UE Context and use a common DL reference power level.

If the value of the *Power Adjustment Type* IE is "Individual", the DRNS shall set the Power Balancing Adjustment Type of the UE Context set to "Individual". The DRNS shall perform the power adjustment (see below) for all radio links addressed in the message using the given DL Reference Power per RL. If the Power Balancing Adjustment Type of the UE Context was set to "Common" before this message was received, power balancing on all radio links not addressed by the DL POWER CONTROL REQUEST message shall remain to be executed in accordance with the existing power balancing parameters which are now considered RL individual parameters. Power balancing will not be started on future radio links without a specific request.

If the value of the *Power Adjustment Type* IE is "None", the DRNS shall set the Power Balancing Adjustment Type of the UE Context set to "None" and the DRNS shall suspend on going power adjustments for all radio links for the UE Context.

If the *Inner Loop DL PC Status* IE is present and set to "Active", the DRNS shall activate inner loop DL power control for all radio links for the UE Context. If the *Inner Loop DL PC Status* IE is present and set to "Inactive", the DRNS shall deactivate inner loop DL power control for all radio links for the UE Context according to ref. [10].

Power Adjustment

The power balancing adjustment shall be superimposed on the inner loop power control adjustment (see ref. [10]) if activated. The power balancing adjustment shall be such that:

$$\sum P_{bal} = (1 - r)(P_{ref} + P_{P-CPICH} - P_{init})$$ with an accuracy of ± 0.5 dB

where the sum is performed over an adjustment period corresponding to a number of frames equal to the value of the *Adjustment Period* IE, P_{ref} is the value of the *DL Reference Power* IE, $P_{P-CPICH}$ is the power used on the primary CPICH, P_{init} is the code power of the last slot of the previous adjustment period and r is given by the *Adjustment Ratio* IE. If the last slot of the previous adjustment period is within a transmission gap due to compressed mode, P_{init} shall be set to the same value as the code power of the slot just before the transmission gap.

The adjustment within one adjustment period shall in any case be performed with the constraints given by the *Max Adjustment Step* IE and the DL TX power range set by the DRNC.

The power adjustments shall be started at the first slot of a frame with CFN modulo the value of *Adjustment Period* IE equal to 0 and shall be repeated for every adjustment period and shall be restarted at the first slot of a frame with CFN=0, until a new DL POWER CONTROL REQUEST message is received or the RL is deleted.

8.3.15.3   Abnormal Conditions

-

8.3.16   Compressed Mode Command [FDD]

8.3.16.1   General

The Compressed Mode Command procedure is used to activate or deactivate the compressed mode in the DRNS for one UE-UTRAN connection. This procedure shall use the signalling bearer connection for the relevant UE Context.

The Compressed Mode Command procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.16.2 Successful Operation

SRNC   DRNC

COMPRESSED MODE COMMAND
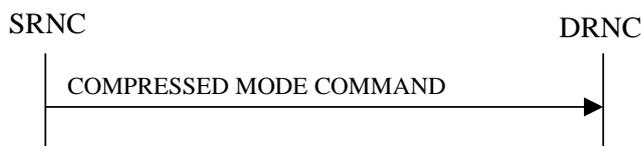
Figure 26: Compressed Mode Command procedure, Successful Operation

The procedure is initiated by the SRNC sending a COMPRESSED MODE COMMAND message to the DRNC.

Upon receipt of the COMPRESSED MODE COMMAND message from the SRNC and at the CFN indicated in the *CM Configuration Change CFN* IE, the DRNS shall deactivate all the ongoing Transmission Gap Pattern Sequences. From that moment on all Transmission Gap Pattern Sequences included in *Transmission Gap Pattern Sequence Status* IE repetitions (if present) shall be started when the indicated *TGCFN* IE elapses. The *CM Configuration Change CFN* IE in the *Active Pattern Sequence Information* IE and *TGCFN* IE for each sequence refer to the next coming CFN with that value.

If the values of the *CM Configuration Change CFN* IE and the *TGCFN* IE are equal, the concerned Transmission Gap Pattern Sequence shall be started immediately at the CFN with a value equal to the value received in the *CM Configuration Change CFN* IE.

If the concerned UE Context is configured to use F-DPCH in the downlink, the DRNS shall ignore, when activating the Transmission Gap Pattern Sequence(s), the downlink compressed mode method information, if existing, for the concerned Transmission Gap Pattern Sequence(s) in the Compressed Mode Configuration.

8.3.16.3 Abnormal Conditions

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8.3.17 Downlink Power Timeslot Control [TDD]

8.3.17.1 General

The purpose of this procedure is to provide the DRNS with updated DL Timeslot ISCP values to use when deciding the DL TX Power for each timeslot.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Downlink Power Timeslot Control procedure can be initiated by the SRNC at any time after establishing a Radio Link. If the SRNC has initiated deletion of the last Radio Link in this DRNS, the Downlink Power Timeslot Control procedure shall not be initiated.

8.3.17.2 Successful Operation

SRNC   DRNC

DL POWER TIMESLOT CONTROL REQUEST

Figure 26A: Downlink Power Timeslot Control procedure, Successful Operation

The Downlink Power Timeslot Control procedure is initiated by the SRNC sending a DL POWER TIMESLOT CONTROL REQUEST message to the DRNC.

Upon receipt of the DL POWER TIMESLOT CONTROL REQUEST message, the DRNS shall use the included [3.84Mcps TDD and 7.68 Mcps TDD - *DL Timeslot ISCP Info* IE] [1.28Mcps TDD - *DL Timeslot ISCP Info LCR* IE] value when deciding the DL TX Power for each timeslot as specified in [22], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link in which the interference is low, and increase the DL TX power in those timeslots in which the interference is high, while keeping the total downlink power in the radio link unchanged.

If the *Primary CCPCH RSCP Delta* IE is included, the DRNS shall assume that the reported value for Primary CCPCH RSCP is in the negative range as per [24], and the value is equal to the *Primary CCPCH RSCP Delta* IE. If the *Primary CCPCH RSCP Delta* IE is not included and the *Primary CCPCH RSCP* IE is included, the DRNS shall assume that the reported value is in the non-negative range as per [24], and the value is equal to the *Primary CCPCH RSCP* IE. The DRNS should use the indicated value for HS-DSCH scheduling and transmit power adjustment.

8.3.17.3 Abnormal Conditions

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8.3.18 Radio Link Pre-emption

8.3.18.1 General

This procedure is started by the DRNS when resources need to be freed.

This procedure shall use the signalling bearer connection for the UE Context associated with the RL to be pre-empted.

The DRNS may initiate the Radio Link Pre-emption procedure at any time after establishing a Radio Link.

8.3.18.2 Successful Operation
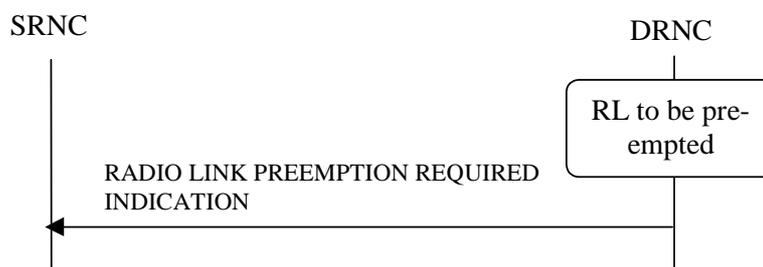
Figure 26B: Radio Link Pre-emption procedure, Successful Operation

When DRNC detects that one or more Radio Link(s) should be pre-empted (see Annex A), it shall send the RADIO LINK PREEMPTION REQUIRED INDICATION message to the SRNC. If all Radio Links for a UE Context should be pre-empted, the *RL Information* IE shall not be included in the message. If one or several but not all Radio Link(s) should be pre-empted for an UE Context, the Radio Link(s) that should be pre-empted shall be indicated in the *RL Information* IE. The Radio Link(s) that should be pre-empted, should be deleted by the SRNC.

[FDD – If only the E-DCH traffic on a Radio Link should be pre-empted, the DRNC shall indicate the EDCH MAC-d flows that should be pre-empted by including the *E-DCH MAC-d Flow Specific Information* IE in the RADIO LINK PREEMPTION REQUIRED INDICATION message.]

When only the HS-DSCH traffic on a Radio Link should be pre-empted, the DRNC shall indicate the HS-DSCH MAC-d flow(s) that should be pre-empted by including the *HS-DSCH MAC-d Flow Specific Information* IE in the RADIO LINK PREEMPTION REQUIRED INDICATION message.

8.3.18.3 Abnormal Conditions

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8.3.19 Radio Link Congestion

8.3.19.1 General

This procedure is started by the DRNS when resource congestion is detected and the rate of one or more DCHs, corresponding to one or more radio links, is preferred to be limited in the UL and/or DL. This procedure is also used by the DRNC to indicate to the SRNC any change of the UL/DL resource congestion situation, affecting these radio links. This procedure shall use the signalling bearer connection for the relevant UE Context.

The Radio Link Congestion procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.19.2 Successful Operation

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    SRNC                                                    DRNC
     │                                                       │
     │         RADIO LINK CONGESTION INDICATION              │
     │◄──────────────────────────────────────────────────── │
     │                                                       │
```

Figure 26C: Radio Link Congestion procedure, Successful Operation

Start of an UL/DL Resource Congestion Situation

When the DRNC detects the start of a UL/DL resource congestion situation and prefers the rate of one or more DCHs for one or more Radio Link(s) to be limited below the maximum rate currently configured in the UL/DL TFS, it shall send the RADIO LINK CONGESTION INDICATION message to the SRNC. The DRNC shall indicate the cause of the congestion in the *Congestion Cause* IE and shall indicate all the Radio Links for which the rate of a DCH needs to be reduced. For each DCH within the RL with UL congestion, the DRNC shall indicate the desired maximum UL data rate with the *Allowed UL Rate* IE in the *Allowed Rate Information* IE. For each DCH within the RL with DL congestion, the DRNC shall indicate the desired maximum DL data rate with the *Allowed DL Rate* IE in the *Allowed Rate Information* IE.

[FDD – For each E-DCH MAC-d flow within the RL with UL congestion, the DRNC shall indicate all the MAC-d flows for which the rate cannot be fullfilled.]

When receiving the RADIO LINK CONGESTION INDICATION message the SRNC should reduce the rate in accordance with the *Congestion Cause* IE and the indicated *Allowed DL Rate* IE and/or *Allowed UL Rate* IE for a DCH.

[FDD – If the <u>RADIO LINK CONGESTION INDICATION</u> message includes the *DCH Indicator For E-DCH-HSDPA Operation* IE, then the SRNS shall ignore the *DCH Rate Information* IE in the <u>RADIO LINK CONGESTION INDICATION</u> message.]

Change of UL/DL Resource Congestion Situation

The DRNC shall indicate any change of the UL/DL resource congestion situation by sending the RADIO LINK CONGESTION INDICATION message in which the new allowed rate(s) of the DCHs are indicated by the *Allowed Rate Information* IE. In the case that for at least one DCH the new allowed rate is lower than the previously indicated allowed rate for that DCH, the *Congestion Cause* IE, indicating the cause of the congestion, shall also be included.

When receiving a RADIO LINK CONGESTION INDICATION message indicating a further rate decrease on any DCH(s) on any RL, the SRNC should reduce the rate in accordance with the indicated congestion cause and the indicated allowed rate(s) for the DCH(s).

End of UL/DL Resource Congestion Situation

The end of an UL resource congestion situation, affecting a specific RL, shall be indicated by including the TF corresponding to the highest data rate in the *Allowed UL Rate* IE in the *Allowed Rate Information* IE for the concerned RL. The end of a DL resource congestion situation, affecting a specific RL, shall be indicated by including the TF with the highest data rate in the *Allowed DL Rate* IE in the *Allowed Rate Information* IE for the concerned RL.

8.3.19.3 Abnormal Conditions

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8.3.20 Radio Link Activation

8.3.20.1 General

This procedure is used to activate or de-activate the DL transmission on the Uu interface regarding selected RLs.

8.3.20.2 Successful Operation

Figure 26D: Radio Link Activation procedure

This procedure is initiated by sending the RADIO LINK ACTIVATION COMMAND message from the SRNC to the DRNC. This procedure shall use the signalling bearer connection for the relevant UE Context.

Upon receipt, the DRNS shall for each concerned RL:

- if the *Delayed Activation Update* IE indicates "Activate":

    - if the *Activation Type* IE equals "Unsynchronised":

        - [FDD - start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in [4].]

        - [TDD - start transmission on the new RL immediately as specified in [4].]

    - if the *Activation Type* IE equals "Synchronised":

        - [FDD - start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in [4], however never before the CFN indicated in the *Activation CFN* IE.]

        - [TDD - start transmission on the new RL at the CFN indicated in the *Activation CFN* IE as specified in [4].]

    - [FDD - the DRNS shall apply the power level indicated in the *Initial DL Tx Power* IE to the transmission on each DL DPCH or on the F-DPCH of the RL when starting transmission until either UL synchronisation on the Uu interface is achieved for the RLS or power balancing is activated. During this period no inner loop power control shall be performed and, unless activated by the DL POWER CONTROL REQUEST message, no power balancing shall be performed. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) and downlink power balancing adjustments (see 8.3.7).]

    - [TDD - the DRNS shall apply the power level indicated in the *Initial DL Tx Power* IE to the transmission on each DL DPCH and on each Time Slot of the RL when starting transmission until the UL synchronisation on the Uu interface is achieved for the RL. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[22], subclause 4.2.3.3).]

    - [FDD - if the *Propagation Delay* IE and optionally the *Extended Propagation Delay* IE are included, the DRNS may use this information to speed up the detection of UL synchronisation on the Uu interface.]

    - [FDD - if the *First RLS Indicator* IE is included, it indicates if the concerned RL shall be considered part of the first RLS established towards this UE. The *First RLS Indicator* IE shall be used by the DRNS to

determine the initial TPC pattern in the DL of the concerned RL and all RLs which are part of the same RLS, as described in [10], section 5.1.2.2.1.2.]

- if the *Delayed Activation Update* IE indicates "Deactivate":

  - stop DL transmission immediately if the Deactivation Type IE equals "Unsynchronised", or at the CFN indicated by the Deactivation CFN IE if the Deactivation Type IE equals "Synchronised".

8.3.20.3 Abnormal Conditions

[FDD - If the *Delayed Activation Update* IE is included in the RADIO LINK ACTIVATION COMMAND message, it indicates "Activate" and the *First RLS Indicator* IE is not included, the DRNC shall initiate the ERROR INDICATION procedure.]

8.3.21 Radio Link Parameter Update

8.3.21.1 General

The Radio Link Parameter Update procedure is executed by the DRNS to update parameters related to HS-DSCH on a radio link for a UE-UTRAN connection or to update phase reference on a list of the radio links.

This procedure shall use the signalling bearer connection for the relevant UE context.

The Radio Link Parameter Update procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.21.2 Successful Operation

Figure 26E: Radio Link Parameter Update Indication, Successful Operation

The Radio Link Parameter Update procedure is initiated by the DRNS by sending the RADIO LINK PARAMETER UPDATE INDICATION message to the SRNC.

HS-DSCH related Parameter(s) Updating:

If RADIO LINK PARAMETER UPDATE INDICATION message is used to update the parameters related to HS-DSCH, it contains suggested value(s) of the HS-DSCH related parameter(s) that should be reconfigured on the radio link.

If the DRNS needs to update HS-DSCH related parameters, the DRNS shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including [FDD - *HS-DSCH FDD Update Information* IE] [TDD - *HS-DSCH TDD Update Information* IE].

If the DRNS needs to allocate new HS-SCCH Codes, the DRNS shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *HS-SCCH Code Change Indicator* IE.

[FDD - If the DRNS needs to allocate new HS-PDSCH Codes, the DRNS shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *HS-PDSCH Code Change Indicator* IE.]

[FDD - If the DRNS needs to update the CQI Feedback Cycle k, CQI Repetition Factor, ACK-NACK Repetition Factor, CQI Power Offset, ACK Power Offset and/or NACK Power Offset, the DRNS shall initiate RADIO LINK

PARAMETER UPDATE INDICATION message including *CQI Feedback Cycle k* IE, *CQI Repetition Factor* IE, *ACK-NACK Repetition Factor* IE, *CQI Power Offset* IE, *ACK Power Offset* IE and/or *NACK Power Offset* IE.]

[TDD - If the DRNS needs to update the TDD ACK-NACK Power Offset the DRNS shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *TDD ACK-NACK Power Offset* IE.]

[FDD – Phase Reference Handling:]

[FDD – If DRNS needs to update phase reference for the channel estimation for one or several Radio Links, the DRNC shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *Phase Reference Update Information* IE for the concerned RL(s).]

[FDD – E-DCH:]

[FDD – If DRNS needs to update E-DCH related parameters, the DRNC shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *E-DCH FDD Update Information* IE.]

[FDD - If the DRNS needs to update the HARQ process allocation for non-scheduled transmission and/or HARQ process allocation for scheduled Transmission, the DRNS shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including the *HARQ Process Allocation For 2ms Non-Scheduled Transmission* Grant IE for the concerned MAC-d Flows and/or *HARQ Process Allocation For 2ms Scheduled Transmission* Grant IE.]

[FDD - If the DRNS needs to allocate new E-AGCH Channelisation Code, new E-RGCH/E-HICH Channelisation Code, new E-RGCH Signature Sequence and/or new E-HICH Signature Sequence, the DRNC shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *E-DCH DL Control Channel Change Information* IE.]

8.3.21.3 Abnormal Conditions

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8.3.22 UE Measurement Initiation [TDD]

8.3.22.1 General

This procedure is used by a DRNC to request the initiation of UE measurements by the SRNC.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The UE Measurement Initiation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.22.2 Successful Operation
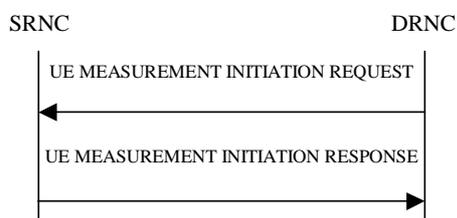
Figure 26F: UE Measurement Initiation procedure, Successful Operation

The procedure is initiated with a UE MEASUREMENT INITIATION REQUEST message sent from the DRNC to the SRNC.

Upon receipt the SRNC shall, provided that it determines that the measurement can be performed by the UE, initiate and forward the requested UE measurement according to the parameters given in the UE MEASUREMENT INITIATION REQUEST message. If the UE MEASUREMENT INITIATION REQUEST message includes the *UE*

Measurement Parameter Modification Allowed IE with a value of "Parameter Modification Allowed" the *UE Measurement Report Characteristics* IE and the *Measurement Filter Coefficient* IE, if it is included, are suggested values, otherwise the values of these parameters must be fulfilled.

[3.84 Mcps TDD - If the *UE Measurement Timeslot Information HCR* IE is provided, the measurement request shall apply for the requested timeslot(s) individually. If the *UE Measurement Timeslot Information HCR* IE are not provided the SRNC may choose the timeslots for measurements that apply to individual timeslots.]

[1.28 Mcps TDD – If the *UE Measurement Timeslot Information LCR* IE is provided, the measurement request shall apply for the requested timeslot(s) individually. If the *UE Measurement Timeslot Information LCR* IE are not provided the SRNC may choose the timeslots for measurements that apply to individual timeslots.]

[7.68 Mcps TDD - If the *UE Measurement Timeslot Information 7.68 Mcps* IE is provided, the measurement request shall apply for the requested timeslot(s) individually. If the *UE Measurement Timeslot Information 7.68 Mcps* IE are not provided the SRNC may choose the timeslots for measurements that apply to individual timeslots.]

If the UE MEASUREMENT INITIATION REQUEST message includes the *Allowed Queuing Time* IE the SRNC may queue the request for a time period not to exceed the value of the *Allowed Queuing Time* IE before starting to execute the request.

The SRNC is required to perform reporting for a UE measurement object, in accordance with the conditions provided in the UE MEASUREMENT INITIATION REQUEST message, as long as the object exists. If no UE measurement object(s) for which a measurement is defined exists any more, the SRNC shall terminate the measurement locally without reporting this to the DRNC.

If at the start of the measurement, the reporting criteria are fulfilled for any of Event 1h, Event 1i,Event 6a, Event 6b, Event 6c, or Event 6d, the SRNC shall initiate the UE Measurement Reporting procedure immediately, and then continue with the measurements as specified in the UE MEASUREMENT INITIATION REQUEST message

At the start of a periodic measurement, the SRNC shall not initiate UE Measurement Reporting procedure until the next measurement is received from the UE, even if measurement data is available.

Report characteristics
The *UE Measurement Report Characteristics* IE indicates how the reporting of the dedicated measurement shall be performed. See [16].

Higher layer filtering
The *Measurement Filter Coefficient* IE indicates how filtering of the dedicated measurement values shall be performed before measurement event evaluation and reporting. If the *Measurement Filter Coefficient* IE is not present, *a* shall be set to 1 (no filtering). The use of the *Measurement Filter Coefficient* IE is shown in [16].

Response message
If the SRNC was able to initiate the measurement requested by the DRNC it shall respond with the UE MEASUREMENT INITIATION RESPONSE message. The message shall include the same Measurement ID that was used in the UE MEASUREMENT INITIATION REQUEST message.

If the DRNC allowed parameter modification and the SRNC modified the *Measurement Filter Coefficient* IE the SRNC shall include the modified value in the UE MEASUREMENT INTIATION RESPONSE message.

If the DRNC allowed parameter modification and the SRNC modified the *UE Measurement Report Characteristics* IE the SRNC shall include the modified value in the UE MEASUREMENT INTIATION RESPONSE message.

8.3.22.3 Unsuccessful Operation


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        SRNC                          DRNC

          │   UE MEASUREMENT INITIATION REQUEST   │
          │◄──────────────────────────────────── │
          │                                       │
          │   UE MEASUREMENT INITIATION FAILURE   │
          │ ──────────────────────────────────────►│
          │                                       │
```
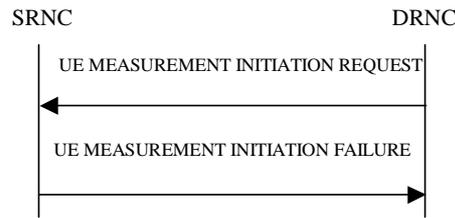
Figure 26G: UE Measurement Initiation procedure, Unsuccessful Operation

If the requested measurement cannot be initiated, the SRNC shall send a UE MEASUREMENT INITIATION FAILURE message. The message shall include the same *Measurement ID* IE that was used in the UE MEASUREMENT INITIATION REQUEST message and shall include the *Cause* IE set to an appropriate value.

Typical cause values are:

Radio Network Layer Causes:

- Measurement not Supported For The Object

- Measurement Temporarily not Available

- Measurement Repetition Rate not Compatible with Current Measurements

- UE not Capable to Implement Measurement

Miscellaneous Causes:

- Control Processing Overload

- HW Failure

8.3.22.4 Abnormal Conditions

-

8.3.23 UE Measurement Reporting [TDD]

8.3.23.1 General

This procedure is used by the SRNC to report the results of the successfully initiated measurements requested by the DRNC with the UE Measurement Initiation procedure.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The SRNC may initiate the UE Measurement Reporting procedure at any time after establishing a Radio Link.

8.3.23.2   Successful Operation

Figure 26H: UE Measurement Reporting procedure, Successful Operation

If the requested measurement reporting criteria was met in the UE and reported to the SRNC, the SRNC shall initiate the UE Measurement Reporting procedure. The *Measurement ID* IE shall be set to the Measurement ID provided by the DRNC when initiating the measurement with the UE Measurement Initiation procedure.

If Primary CCPCH RSCP is being reported:

- If the *Primary CCPCH RSCP Delta* IE is included, the DRNC shall assume that the reported value for Primary CCPCH RSCP is in the negative range as per [24], and the value is equal to the *Primary CCPCH RSCP Delta* IE.

- If the *Primary CCPCH RSCP Delta* IE is not included the DRNC shall assume that the reported value is in the non negative range as per [24], and the value is equal to the *Primary CCPCH RSCP* IE

If the achieved measurement accuracy does not fulfil the given accuracy requirement specified in ref. [24], the Measurement not available shall be reported in the *UE Measurement Value Information* IE in the UE MEASUREMENT REPORT message, otherwise the SRNC shall include the *UE Measurement Value* IE within the *UE Measurement Value Information* IE.

8.3.23.3   Abnormal Conditions

-

8.3.24   UE Measurement Termination [TDD]

8.3.24.1   General

This procedure is used by the DRNC to terminate a measurement previously requested by the UE Measurement Initiation procedure.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The UE Measurement Termination procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.24.2   Successful Operation

Figure 26I: UE Measurement Termination procedure, Successful Operation

This procedure is initiated with a UE MEASUREMENT TERMINATION REQUEST message, sent from the DRNC to the SRNC.

Upon receipt, the SRNC shall terminate forwarding of UE measurements corresponding to the received *Measurement ID* IE.

8.3.24.3   Abnormal Conditions

-

8.3.25   UE Measurement Failure [TDD]

8.3.25.1   General

This procedure is used by the SRNC to notify the DRNC that a measurement previously requested by the UE Measurement Initiation procedure can no longer be reported.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The SRNC may initiate the UE Measurement Failure procedure at any time after establishing a Radio Link.

8.3.25.2   Successful Operation

SRNC   DRNC

| UE MEASUREMENT FAILURE INDICATION |

Figure 26J: UE Measurement Failure procedure, Successful Operation

This procedure is initiated with a UE MEASUREMENT FAILURE INDICATION message, sent from the SRNC to the DRNC, to inform the DRNC that a previously requested UE measurement can no longer be reported. The SRNC has locally terminated the forwarding of the indicated measurement. The SRNC shall include in the UE MEASUREMENT FAILURE INDICATION message the reason for the failure in the *Cause* IE.

Typical cause values are:

Miscellaneous Causes:

- Control Processing Overload

- HW Failure

- O&M Intervention

8.3.25.3   Abnormal Conditions

-

8.3.26   Iur Invoke Trace

8.3.26.1   General

The purpose of the Iur Invoke Trace procedure is to inform the DRNC that it should begin a Trace Session for a given UE Context according to the Trace Parameters indicated by the SRNC. This procedure is used for Trace Parameter Propagation in the Signalling Based Activation mechanism as defined in [48] and [49].

This procedure shall use the signalling bearer mode specified below.

8.3.26.2   Successful Operation

Figure 26K: Iur Invoke Trace procedure, Successful Operation

The Iur Invoke Trace procedure is invoked by the SRNC by sending an IUR INVOKE TRACE message to the DRNC.

When the concerned UE is utilising one or more radio links in the DRNC the message shall be sent using the connection oriented service of the signalling bearer and no further identification of the UE Context in the DRNC is required. If on the other hand, the UE is not utilising any radio link the message shall be sent using the connectionless service of the signalling bearer and the *D-RNTI* IE shall be included in the message to identify the UE Context in the DRNC.

Upon receiving the IUR INVOKE TRACE message, the DRNC should begin a Trace Recording Session according to the parameters indicated in the IUR INVOKE TRACE message.

If the *List Of Interfaces To Trace* IE is included in the IUR INVOKE TRACE message, the DRNC shall trace, for the concerned UE Context, the interfaces indicated by the *List Of Interfaces To Trace* IE. Otherwise, the DRNC shall trace, for the concerned UE Context, the Iur and Iub interfaces.

The values of the *UE Identity* IE, *Trace Reference* IE and *Trace Recording Session Reference* IE are used to tag the Trace Record to allow simpler construction of the total record by the entity which combines Trace Records.

If the DRNC does not support the requested value "Minimum" or "Medium" of the *Trace Depth* IE, the DRNC should begin a Trace Recording Session with maximum Trace Depth.

The DRNC may not start a Trace Recording Session if there are insufficient resources available within the DRNC.

8.3.26.3   Abnormal Conditions

-

8.3.27   Iur Deactivate Trace

8.3.27.1   General

The purpose of the Iur Deactivate Trace procedure is to inform the DRNC that it should stop a Trace Session for the concerned UE Context and the indicated Trace Reference. This procedure is used for the Signalling Based Deactivation mechanism as defined in [48] and [49].

This procedure shall use the signalling bearer mode specified below.

8.3.27.2   Successful Operation

Figure 26L: Iur Invoke Trace procedure, Successful Operation

The Iur Deactivate Trace procedure is invoked by the SRNC by sending an IUR DEACTIVATE TRACE message to the DRNC.

When the concerned UE is utilising one or more radio links in the DRNC the message shall be sent using the connection oriented service of the signalling bearer and no further identification of the UE Context in the DRNC is required. If on

the other hand, the UE is not utilising any radio link the message shall be sent using the connectionless service of the signalling bearer and the *D-RNTI* IE shall be included in the message to identify the UE Context in the DRNC.

Upon receiving the IUR DEACTIVATE TRACE message, the DRNC shall stop for the concerned UE Context any ongoing Trace Recording Session for the Trace Session identified by the *Trace Reference* IE.

8.3.27.3 Abnormal Conditions

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8.4 Common Transport Channel Procedures

8.4.1 Common Transport Channel Resources Initialisation

8.4.1.1 General

The Common Transport Channel Resources Initialisation procedure is used by the SRNC for the initialisation of the Common Transport Channel user plane towards the DRNC and/or for the initialisation of the Common Transport Channel resources in the DRNC to be used by a UE.

This procedure shall use the connectionless mode of the signalling bearer.

8.4.1.2 Successful Operation
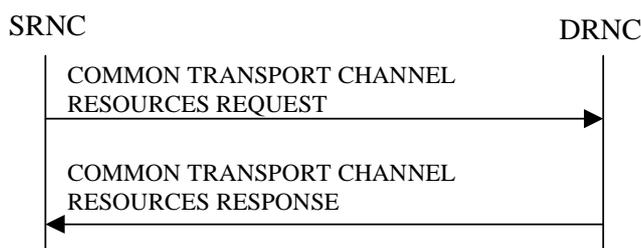
Figure 27: Common Transport Channel Resources Initialisation procedure, Successful Operation

The SRNC initiates the procedure by sending the message COMMON TRANSPORT CHANNEL RESOURCES REQUEST message to the DRNC.

If the value of the *Transport Bearer Request Indicator* IE is set to "Bearer Requested", the DRNC shall store the received *Transport Bearer ID* IE. The DRNC may use the *Transport Layer Address* and *Binding ID* IEs included in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message received from the SRNC when establishing a transport bearer for the common transport channel. In addition, the DRNC shall include its own *Binding ID* IE and *Transport Layer Address* IE in the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message.

If the *TNL QoS* IE is included and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNC to determine the transport bearer characteristics to apply in the uplink between the DRNS and the SRNC for the related common transport channels.

If the value of the *Transport Bearer Request Indicator* IE is set to" Bearer not Requested"*,* the DRNC shall use the transport bearer indicated by the *Transport Bearer ID* IE.

If the *C-ID* IE is included in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message, the DRNC shall allocate a C-RNTI for the indicated cell and include the *C-RNTI* IE in the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message.

If the *C-ID* IE is included in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message, the DRNC shall include the *FACH Info for UE Selected S-CCPCH* IE valid for the cell indicated by the *C-ID* IE and the corresponding *C-ID* IE in the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message. If the *C-ID* IE is not included in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message, the DRNC shall include the *FACH Info for UE Selected S-CCPCH* IE valid for the cell where the UE is located and the corresponding

C-ID IE. The DRNC shall include the *FACH Scheduling Priority* IE and *FACH Initial Window Size* IE in the *FACH Flow Control Information* IE of the *FACH Info for UE Selected S-CCPCH* IE for each priority class that the DRNC has determined shall be used. The DRNC may include several *MAC-c/sh SDU Length* IEs for each priority class.

If the DRNS has any RACH and/or FACH [FDD - and/or HS-DSCH] resources previously allocated for the UE in another cell than the cell in which resources are currently being allocated, the DRNS shall release the previously allocated RACH and/or FACH resources [FDD - and/or HS-DSCH].

If the DRNS has successfully reserved the required resources, the DRNC shall respond to the SRNC with the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message.

If the *Permanent NAS UE Identity* IE is present in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message, the DRNS shall store the information for the considered UE Context for the lifetime of the UE Context.

If the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message includes a *C-ID* IE corresponding to a cell reserved for operator use and the Permanent NAS UE Identity is available in the DRNC for the considered UE Context, the DRNC shall use this information to determine whether it can reserve resources on a common transport channel in this cell or not.

If the *MBMS Bearer Service List* IE is included in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message, the DRNC shall perform the UE Linking as specified in [50], section 5.1.6. If an MBMS session for some MBMS bearer services contained in the UE Link is ongoing in the cell identified by the *C-ID* IE, the DRNC shall include in the *Active MBMS Bearer Service List* IE the *Transmission Mode* IE for each of these active MBMS bearer services in the COMMON TRANPORT CHANNEL RESOURCES RESPONSE message.

[FDD - If the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message includes an *Enhanced FACH Support Indicator* IE, the DRNC may include the *Enhanced FACH Information Response* IE in the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message. If a HS-DSCH RNTI was not previously allocated to the UE or a new HS-DSCH RNTI is allocated to the UE, the DRNC shall include the *HS-DSCH-RNTI* IE in the *Enhanced FACH Information Response* IE. And if Enhanced PCH operation is activated in the cell indicated by the *C-ID* IE, the DRNC shall include the *Priority Queue Information for Enhanced PCH* IE in the *Enhanced FACH Information Response* IE.]

8.4.1.3 Unsuccessful Operation
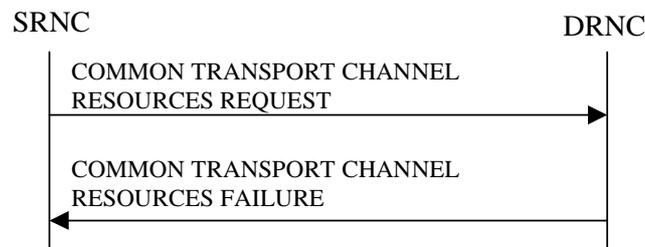
Figure 28: Common Transport Channel Resources Initialisation procedure, Unsuccessful Operation

If the *Transport Bearer Request Indicator* IE is set to "Bearer Requested" and the DRNC is not able to provide a Transport Bearer, the DRNC shall reject the procedure and respond to the SRNC with the COMMON TRANSPORT CHANNEL RESOURCES FAILURE message, including the reason for the failure in the *Cause* IE.

If the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message contains a *C-ID* IE corresponding to a cell reserved for operator use and the Permanent NAS UE Identity is not available for the considered UE Context, the DRNC shall reject the procedure and send the COMMON TRANSPORT CHANNEL RESOURCES FAILURE message, including the reason for the failure in the *Cause* IE.

Typical cause values are:

Radio Network Layer Causes:

- Common Transport Channel Type not Supported;

- Cell reserved for operator use.

Transport Layer Causes:

- Transport Resource Unavailable.

8.4.1.4 Abnormal Conditions

If the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message contains the *Transport Layer Address* IE or the *Binding ID* IE, and not both are present for a transport channel intended to be established, the DRNC shall reject the procedure using the COMMON TRANSPORT CHANNEL RESOURCES FAILURE message.

8.4.2 Common Transport Channel Resources Release

8.4.2.1 General

This procedure is used by the SRNC to request release of Common Transport Channel Resources for a given UE in the DRNS. The SRNC uses this procedure either to release the UE Context from the DRNC (and thus both the D-RNTI and the C-RNTI) or to release only the C-RNTI.

This procedure shall use the connectionless mode of the signalling bearer.

8.4.2.2 Successful Operation

Figure 29: Common Transport Channel Resources Release procedure, Successful Operation

The SRNC initiates the Common Transport Channel Resources Release procedure by sending the COMMON TRANSPORT CHANNEL RESOURCES RELEASE REQUEST message to the DRNC. Upon receipt of the message the DRNC shall release the UE Context identified by the D-RNTI and all its related RACH and/or FACH resources, unless the UE is using dedicated resources (DCH, [TDD - USCH and/or DSCH]) in the DRNS in which case the DRNC shall release only the C-RNTI and all its related RACH and/or FACH [FDD - and/or HS-DSCH] resources allocated for the UE.

8.4.2.3 Abnormal Conditions

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8.5 Global Procedures

8.5.1 Error Indication

8.5.1.1 General

The Error Indication procedure is initiated by a node to report detected errors in a received message, provided they cannot be reported by an appropriate response message.

This procedure shall use the signalling bearer mode specified below.

8.5.1.2 Successful Operation

RNC1   RNC2
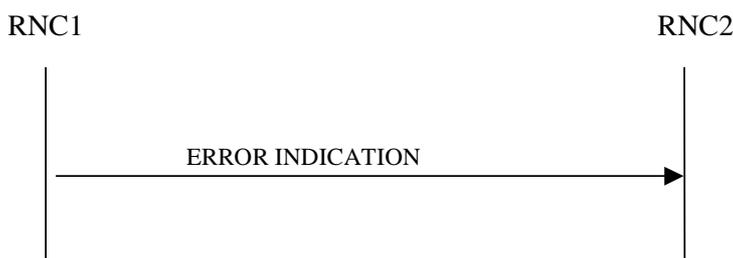
ERROR INDICATION

Figure 30: Error Indication procedure, Successful Operation

When the conditions defined in clause 10 are fulfilled, the Error Indication procedure is initiated by an ERROR INDICATION message sent from the receiving node. This message shall use the same mode of the signalling bearer and the same signalling bearer connection (if connection oriented) as the message that triggers the procedure.

When the ERROR INDICATION message is sent from a DRNC to an SRNC using connectionless mode of the signalling bearer, the *S-RNTI* IE shall be included in the message if the UE Context addressed by the *D-RNTI* IE which was received in the message triggering the Error Indication procedure exists. When the ERROR INDICATION message is sent from an SRNC to a DRNC using connectionless mode of the signalling bearer, the *D-RNTI* IE shall be included in the message if available.

When a message using connectionless mode of the signalling bearer is received in the DRNC and there is no UE Context in the DRNC as indicated by the *D-RNTI* IE, the DRNC shall include the D-RNTI from the received message in the *D-RNTI* IE and set the *Cause* IE to "Unknown RNTI" in the ERROR INDICATION message, unless another handling is specified in the procedure text for the affected procedure.

When a message using connectionless mode of the signalling bearer is received in the SRNC and there is no UE in the SRNC as indicated by the *S-RNTI* IE, the SRNC include the S-RNTI from the received message in the *S-RNTI* IE and set the *Cause* IE to "Unknown RNTI" in the ERROR INDICATION message, unless another handling is specified in the procedure text for the affected procedure.

The ERROR INDICATION message shall include either the *Cause* IE, or the *Criticality Diagnostics* IE, or both the *Cause* IE and the *Criticality Diagnostics* IE to indicate the reason for the error indication.

Typical cause values for the ERROR INDICATION message are:

Protocol Causes:

- Transfer Syntax Error

- Abstract Syntax Error (Reject)

- Abstract Syntax Error (Ignore and Notify)

- Message not Compatible with Receiver State

- Unspecified

8.5.1.2.1 Successful Operation for Iur-g

The RNC$_1$/BSS$_1$ and RNC$_2$/BSS$_2$ shall use the error indication procedure as specified in section 8.5.1.2.

8.5.1.3 Abnormal Conditions

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8.5.2 Common Measurement Initiation

8.5.2.1 General

This procedure is used by an RNC to request the initiation of measurements of common resources to another RNC. The requesting RNC is referred to as RNC_1 and the RNC to which the request is sent is referred to as RNC_2.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

8.5.2.2 Successful Operation
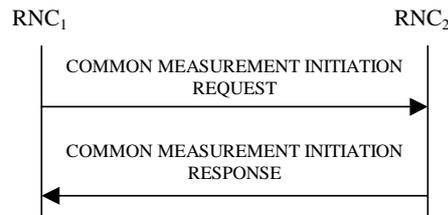
Figure 30A: Common Measurement Initiation procedure, Successful Operation

The procedure is initiated with a COMMON MEASUREMENT INITIATION REQUEST message sent from the RNC_1 to the RNC_2.

Upon receipt, the RNC_2 shall initiate the requested measurement according to the parameters given in the request.

Unless specified below, the meaning of the parameters are given in other specifications.

[TDD - If the [3.84 Mcps TDD and 7.68 Mcps TDD - *Time Slot* IE] [1.28 Mcps - *Time Slot LCR* IE] is present in the COMMON MEASUREMENT INITIATION REQUEST message, the measurement request shall apply to the requested time slot individually.]

Common measurement type

If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then:

- The RNC_2 shall initiate the SFN-SFN Observed Time Difference measurements between the reference cell identified by the *Reference Cell Identifier* IE and the neighbouring cells identified by the *UTRAN Cell Identifier* IE (*UC-ID*) in the *Neighbouring Cell Measurement Information* IE.

- [3.84 Mcps TDD - The RNC_2 shall perform the measurement using the time slot specified in the *Time Slot* IE in the *Neighbouring TDD Cell Measurement Information* IE and using the midamble shift and burst type specified in the *Midamble Shift And Burst Type* IE in the *Neighbouring TDD Cell Measurement Information* IE. If *Time Slot* IE and *Midamble Shift And Burst Type* IE are not available in the *Neighbouring TDD Cell Measurement Information* IE, the RNC_2 may use any appropriate time slots, midamble shifts and burst types to make the measurement.]

- [7.68 Mcps TDD - The RNC_2 shall perform the measurement using the time slot specified in the *Time Slot* IE in the *Neighbouring TDD Cell Measurement Information 7.68 Mcps* IE and using the midamble shift and burst type specified in the *Midamble Shift And Burst Type 7.68 Mcps* IE in the *Neighbouring TDD Cell Measurement Information 7.68 Mcps* IE. If *Time Slot* IE and *Midamble Shift And Burst Type 7.68 Mcps* IE are not available in the *Neighbouring TDD Cell Measurement Information 7.68 Mcps* IE, the RNC_2 may use any appropriate time slots, midamble shifts and burst types to make the measurement.]

If the *Common Measurement Type* IE is set to "load", the RNC_2 shall initiate measurements of uplink and downlink load on the measured object identified by the *Reference Cell Identifier* IE. If either uplink or downlink load satisfies the requested report characteristics, the RNC_2 shall report the result of both uplink and downlink measurements.

If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning", "UTRAN GANSS Timing of Cell Frames for UE Positioning", "transmitted carrier power", "received total wide band power", or

"UL timeslot ISCP" the RNC$_2$ shall initiate measurements on the measured object identified by the *Reference Cell Identifier* IE.

If the *Common Measurement Type* IE is set to "RT load", the RNC$_2$ shall initiate measurements of uplink and downlink estimated share of RT (Real Time) traffic of the load of the measured object. If either uplink or downlink RT load satisfies the requested report characteristics, the RNC$_2$ shall report the result of both uplink and downlink measurements.

If the *Common Measurement Type* IE is set to "NRT load Information", the RNC$_2$ shall initiate measurements of uplink and downlink NRT (Non Real Time) load situation on the measured object. If either uplink or downlink NRT load satisfies the requested report characteristics, the RNC$_2$ shall report the result of both uplink and downlink measurements.

Report characteristics

The *Report Characteristics* IE indicates how the reporting of the measurement shall be performed. See also Annex B.

If the *Report Characteristics* IE is set to "On Demand" and if the *SFN* IE is not provided, the RNC$_2$ shall report the result of the requested measurement immediately in the COMMON MEASUREMENT INITIATION RESPONSE message. If the *SFN* IE is provided, it indicates the frame for which the measurement value shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [26]. Furthermore, if the *SFN* IE is present and if the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference ", then the *SFN* IE relates to the Radio Frames of the Reference Cell identified by the *Reference Cell Identifier* IE.

If the *Report Characteristics* IE is set to "Periodic" and if the *SFN* IE is not provided, the RNC$_2$ shall immediately and periodically initiate a Common Measurement Reporting procedure for this measurement, with a frequency as specified by the *Report Periodicity* IE. If the *SFN* IE is provided, the RNC$_2$ shall initiate a Common Measurement Reporting procedure for this measurement at the SFN indicated in the *SFN* IE, and shall repeat this initiation periodically thereafter with a frequency as specified by the *Report Periodicity* IE. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [26]. Furthermore, if the *SFN* IE is present and if the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference ", then the *SFN* IE relates to the Radio Frames of the Reference Cell identified by the *Reference Cell Identifier* IE.

If the *Report Characteristics* IE is set to "Event A", the RNC$_2$ shall initiate the Common Measurement Reporting procedure when the measured entity rises above the requested threshold, as specified by the *Measurement Threshold* IE, and then stays above the threshold for the requested hysteresis time, as specified by the *Measurement Hysteresis Time* IE. If the *Measurement Hysteresis Time* IE is not included, the RNC$_2$ shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event B", the RNC$_2$ shall initiate the Common Measurement Reporting procedure when the measured entity falls below the requested threshold, as specified by the *Measurement Threshold* IE, and then stays below the threshold for the requested hysteresis time, as specified by the *Measurement Hysteresis Time* IE. If the *Measurement Hysteresis Time* IE is not included, the RNC$_2$ shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event C", the RNC$_2$ shall initiate the Common Measurement Reporting procedure when the measured entity rises more than the requested threshold specified by the *Measurement Increase/Decrease Threshold* IE, and only when this rise occurs within the requested rising time specified by the *Measurement Change Time* IE. After reporting this type of event, the RNC$_2$ shall not initiate the next C event reporting for the same measurement during the subsequent time specified by the *Measurement Change Time* IE.

If the *Report Characteristics* IE is set to "Event D", the RNC$_2$ shall initiate the Common Measurement Reporting procedure when the measured entity falls more than the requested threshold specified by the *Measurement Increase/Decrease Threshold* IE, and only when this fall occurs within the requested falling time specified by the *Measurement Change Time* IE. After reporting this type of event,, the RNC$_2$ shall not initiate the next D event reporting for the same measurement during the subsequent time specified by the *Measurement Change Time* IE.

If the *Report Characteristics* IE is set to "Event E", the RNC$_2$shall initiate the Common Measurement Reporting procedure when the measured entity rises above the *Measurement Threshold 1* IE and stays above the threshold for the *Measurement Hysteresis Time* IE (Report A). When the conditions for Report A are met and if the *Report Periodicity* IE is provided, the RNC$_2$ shall initiate the Common Measurement Reporting procedure periodically with the requested report frequency specified by the *Report Periodicity* IE. If the conditions for Report A have been met and the measured entity falls below the *Measurement Threshold 2* IE and stays below the threshold for the *Measurement Hysteresis Time* IE, the RNC$_2$ shall initiate the Common Measurement Reporting procedure (Report B) and shall terminate any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the RNC$_2$ shall use the value of the

Measurement Threshold 1 IE instead. If the *Measurement Hysteresis Time* IE is not included, the RNC$_2$ shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is set to "Event F", the RNC$_2$ shall initiate the Common Measurement Reporting procedure when the measured entity falls below the *Measurement Threshold 1* IE and stays below the threshold for the *Measurement Hysteresis Time* IE (Report A). When the conditions for Report A are met and if the *Report Periodicity* IE is provided, the RNC$_2$ shall initiate the Measurement Reporting procedure periodically with the requested report frequency specified by the *Report Periodicity* IE. If the conditions for Report A have been met and the measured entity rises above the *Measurement Threshold 2* IE and stays above the threshold for the *Measurement Hysteresis Time* IE, the RNC$_2$ shall initiate the Common Measurement Reporting procedure (Report B) and shall terminate any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the RNC$_2$ shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the RNC$_2$ shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is set to "On Modification" and if the *SFN* IE is not provided, the RNC$_2$ shall report the result of the requested measurement immediately. If the *SFN* IE is provided, it indicates the frame for which the first measurement value shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [26]. Furthermore, if the *SFN* IE is present and if the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the *SFN* IE relates to the Radio Frames of the Reference Cell identified by the *Reference Cell Identifier* IE. Following the first measurement report, the RNC$_2$ shall initiate the Common Measurement Reporting procedure in accordance to the following conditions:

1. If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning":

   - If the $T_{UTRAN-GPS}$ *Change Limit* IE is included in the $T_{UTRAN-GPS}$ *Measurement Threshold Information* IE, the RNC$_2$ shall calculate the change of $T_{UTRAN-GPS}$ value (F_n) each time a new measurement result is received after point C in the measurement model [26]. The RNC$_2$ shall initiate the Common Measurement Reporting procedure and set n equal to zero when the absolute value of F_n rises above the threshold indicated by the $T_{UTRAN-GPS}$ *Change Limit* IE. The change of $T_{UTRAN-GPS}$ value (F_n) is calculated according to the following:

   $F_n=0$ for $n=0$

   $F_n = (M_n - M_{n-1})$ mod 37158912000000 – (($SFN_n - SFN_{n-1}$) mod 4096) $*10*3.84*10^3*16 + F_{n-1}$ for $n>0$

   F_n is the change of the $T_{UTRAN-GPS}$ value expressed in unit [1/16 chip] when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

   M_n is the latest measurement result received after point C in the measurement model [26], measured at SFN_n.

   M_{n-1} is the previous measurement result received after point C in the measurement model [26], measured at SFN_{n-1}.

   M_1 is the first measurement result received after point C in the measurement model [26], after first Common Measurement Reporting at initiation or after the last event was triggered.

   M_0 is equal to the value reported in the first Common Measurement Reporting at initiation or in the Common Measurement Reporting when the event was triggered.

   - If the *Predicted* $T_{UTRAN-GPS}$ *Deviation Limit* IE is included in the $T_{UTRAN-GPS}$ *Measurement Threshold Information* IE, the RNC$_2$ shall update the P_n and F each time a new measurement result is received after point C in the measurement model [26]. The RNC$_2$ shall initiate the Common Measurement Reporting procedure and set n equal to zero when F_n rises above the threshold indicated by the *Predicted* $T_{UTRAN-GPS}$ *Deviation Limit* IE. The P_n and F_n are calculated according to the following:

   $P_n=b$ for $n=0$

   $P_n = ((a/16) * (($SFN_n - SFN_{n-1}$)$ mod 4096) /100 +(($SFN_n - SFN_{n-1}$) mod 4096)$*10*3.84*10^3*16 + P_{n-1}$) mod 37158912000000 for $n>0$

   $F_n = min((M_n - P_n)$ mod 37158912000000, $(P_n - M_n)$ mod 37158912000000)   for $n>0$

   P_n is the predicted $T_{UTRAN-GPS}$ value when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

   a is the last reported $T_{UTRAN-GPS}$ Drift Rate value.

b is the last reported $T_{UTRAN-GPS}$ value.

F_n is the deviation of the last measurement result from the predicted $T_{UTRAN-GPS}$ value (P_n) when n measurements have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

M_n is the latest measurement result received after point C in the measurement model [26], measured at SFN_n.

M_1 is the first measurement result received after point C in the measurement model [26], after first Common Measurement Reporting at initiation or after the last event was triggered.

The $T_{UTRAN-GPS}$ Drift Rate is determined by the RNS_2 in an implementation-dependent way after point B (see model of physical layer measurements in [26]).

2. If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference":

   -   If the *SFN-SFN Change Limit* IE is included in the *SFN-SFN Measurement Threshold Information* IE, the RNC_2 shall calculate the change of SFN-SFN value (F_n) each time a new measurement result is received after point C in the measurement model [26]. The RNC_2 shall initiate the Common Measurement Reporting procedure in order to report the particular SFN-SFN measurement which has triggered the event and set n equal to zero when the absolute value of F_n rises above the threshold indicated by the *SFN-SFN Change Limit* IE. The change of the SFN-SFN value is calculated according to the following:

      F_n=0 for n=0

      [FDD - *$F_n = (M_n - a)$ mod 614400   for n>0*]

      [TDD - *$F_n = (M_n - a)$ mod 40960   for n>0*]

      F_n is the change of the SFN-SFN value expressed in unit [1/16 chip] when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

      a is the last reported SFN-SFN.

      M_n is the latest measurement result received after point C in the measurement model [26], measured at SFN_n.

      M_1 is the first measurement result received after point C in the measurement model [26], after the first Common Measurement Reporting at initiation or after the last event was triggered.

   -   If the *Predicted SFN-SFN Deviation Limit* IE is included in the *SFN-SFN Measurement Threshold Information* IE, the RNC_2 shall each time a new measurement result is received after point C in the measurement model [26], update the P_n and F_n. The RNC_2 shall initiate the Common Measurement Reporting procedure in order to report the particular SFN-SFN measurement which has triggered the event and set n equal to zero when F_n rises above the threshold indicated by the *Predicted SFN-SFN Deviation Limit* IE. The P_n and F_n are calculated according to the following:

      P_n=b for n=0

      [FDD - *$P_n = ((a/16) * ((SFN_n - SFN_{n-1})$ mod 4096)/100 + P_{n-1}) mod 614400   for n>0*]

      [FDD - *$F_n = min((M_n - P_n)$ mod 614400, $(P_n - M_n)$ mod 614400   for n>0*]

      [TDD - *$P_n = ((a/16) * (15*(SFN_n - SFN_{n-1})$mod 4096 + $(TS_n - TS_{n-1}))/1500 + P_{n-1}$) mod 40960 for   n>0*]

      [TDD - *$F_n = min((M_n - P_n)$ mod 40960, $(P_n - M_n)$ mod 40960)   for n>0*]

      P_n is the predicted *SFN-SFN* value when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

      a is the last reported *SFN-SFN* Drift Rate value.

      b is the last reported SFN-SFN value.

      F_n is the deviation of the last measurement result from the predicted *SFN-SFN* value (P_n) when n measurements have been received after first Common Measurement Reporting at initiation or after the last event was triggered.

M_n is the latest measurement result received after point C in the measurement model [26], measured at the [TDD - the Time Slot TS_n of] the Frame SFN_n.

M_1 is the first measurement result received after point C in the measurement model [26], after first Common Measurement Reporting at initiation or after the last event was triggered.

The SFN-SFN Drift Rate is determined by the RNS_2 in an implementation-dependent way after point B (see model of physical layer measurements in [26]).

3. If the *Common Measurement Type* IE is set to "UTRAN GANSS Timing of Cell Frames for UE Positioning":

- If the $T_{UTRAN\text{-}GANSS}$ *Change Limit* IE is included in the $T_{UTRAN\text{-}GANSS}$ *Measurement Threshold Information* IE, the RNC_2 shall calculate the change of $T_{UTRAN\text{-}GANSS}$ value (F_n) each time a new measurement result is received after point C in the measurement model [26]. The RNC_2 shall initiate the Common Measurement Reporting procedure and set n equal to zero when the absolute value of F_n rises above the threshold indicated by the $T_{UTRAN\text{-}GANSS}$ *Change Limit* IE. The change of $T_{UTRAN\text{-}GANSS}$ value (F_n) is calculated according to the following:

$F_n=0$ for n=0

$F_n = (GAM_n - GAM_{n-1})$ mod 5308416000000 $- ((SFN_n - SFN_{n-1})$ mod 4096$) *10*3.84*10\^3*16 + F_{n-1}$

   for n>0

F_n is the change of the $T_{UTRAN\text{-}GANSS}$ value expressed in unit [1/16 chip] when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

GAM_n is the latest GANSS measurement result received after point C in the GANSS measurement model, measured at SFN_n.

GAM_{n-1} is the previous GANSS measurement result received after point C in the GANSS measurement model, measured at SFN_{n-1}.

GAM_1 is the first GANSS measurement result received after point C in the GANSS measurement model, after the first Common Measurement Reporting at initiation or after the last event was triggered.

GAM_0 is equal to the value reported in the first Common Measurement Reporting at initiation or in the Common Measurement Reporting when the event was triggered.

GANSS measurement model is the timing between cell j and GANSS Time Of Day. $T_{UE\text{-}GANSSj}$ is defined as the time of occurrence of a specified UTRAN event according to GANSS time. The specified UTRAN event is the beginning of a particular frame (identified through its SFN) in the first detected path (in time) of the cell j CPICH, where cell j is a cell chosen by the UE. The reference point for $T_{UE\text{-}GANSSj}$ shall be the antenna connector of the UE.

- If the *Predicted $T_{UTRAN\text{-}GANSS}$ Deviation Limit* IE is included in the $T_{UTRAN\text{-}GANSS}$ *Measurement Threshold Information* IE, the RNC_2 shall update the P_n and F each time a new measurement result is received after point C in the measurement model [26]. The RNC_2 shall initiate the Common Measurement Reporting procedure and set n equal to zero when F_n rises above the threshold indicated by the *Predicted $T_{UTRAN\text{-}GANSS}$ Deviation Limit* IE. The P_n and F_n are calculated according to the following:

$P_n=b$ for n=0

$P_n = ((a/16) * ((SFN_n - SFN_{n-1})$ mod 4096$)/100 +((SFN_n - SFN_{n-1})$ mod 4096$)*10*3.84*10\^3*16 + P_{n-1})$ mod 5308416000000   for n>0

$F_n = min((GAM_n - P_n)$ mod 5308416000000, $(P_n - GAM_n)$ mod 5308416000000)   for n>0

P_n is the predicted $T_{UTRAN\text{-}GANSS}$ value when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

a is the last reported $T_{UTRAN\text{-}GANSS}$ Drift Rate value.

b is the last reported $T_{UTRAN\text{-}GANSS}$ value.

F_n is the deviation of the last measurement result from the predicted $T_{UTRAN-GANSS}$ value (P_n) when n measurements have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

GAM_n is the latest GANSS measurement result received after point C in the GANSS measurement model, measured at SFN_n.

GAM_1 is the first GANSS measurement result received after point C in the GANSS measurement model, after the first Common Measurement Reporting at initiation or after the last event was triggered.

The $T_{UTRAN-GANSSS}$ Drift Rate is determined by the RNS_2 in an implementation-dependent way after point B (see model of physical layer measurements in [26]).

If the *Report Characteristics* IE is not set to "On Demand", the RNC_2 is required to perform reporting for a common measurement object, in accordance with the conditions provided in the COMMON MEASUREMENT INITIATION REQUEST message, as long as the object exists. If no common measurement object(s) for which a measurement is defined exists any more, the RNC_2 shall terminate the measurement locally without reporting this to RNC_1.

If at the start of the measurement, the reporting criteria are fulfilled for any of Event A, Event B, Event E or Event F, the RNC_2 shall initiate a Measurement Reporting procedure immediately, and then continue with the measurements as specified in the COMMON MEASUREMENT INITIATION REQUEST message.

Common measurement accuracy

If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning", then the RNC_2 shall use the $T_{UTRAN-GPS}$ *Measurement Accuracy Class* IE included in the *Common Measurement Accuracy* IE according to the following:.

- If the $T_{UTRAN-GPS}$ *Measurement Accuracy Class* IE indicates "Class A", then the concerned RNC_2 shall perform the measurement with the highest supported accuracy within the accuracy classes A, B or C.

- If the $T_{UTRAN-GPS}$ *Measurement Accuracy Class* IE indicates the "Class B", then the concerned RNC_2 shall perform the measurements with the highest supported accuracy within the accuracy classes B and C.

- If the $T_{UTRAN-GPS}$ *Measurement Accuracy Class* IE indicates "Class C", then the concerned RNC_2 shall perform the measurements with the highest supported accuracy according to class C.

If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the concerned RNC_2 shall initiate the SFN-SFN observed Time Difference measurements between the reference cell identified by *UC-ID* IE and the neighbouring cells identified by their UC-ID. The *Report Characteristics* IE applies to each of these measurements.

If the *Common Measurement Type* IE is set to "UTRAN GANSS Timing of Cell Frames for UE positioning", then the RNC_2 shall use the $T_{UTRAN-GANSS}$ *Measurement Accuracy Class* IE included in the *Common Measurement Accuracy* IE according to the following:

- If the $T_{UTRAN-GANSS}$ *Measurement Accuracy Class* IE indicates "Class A", then the concerned RNC_2 shall perform the measurement with the highest supported accuracy within the accuracy classes A, B or C.

- If the $T_{UTRAN-GANSS}$ *Measurement Accuracy Class* IE indicates the "Class B", then the concerned RNC_2 shall perform the measurements with the highest supported accuracy within the accuracy classes B and C.

- If the $T_{UTRAN-GANSS}$ *Measurement Accuracy Class* IE indicates "Class C", then the concerned RNC_2 shall perform the measurements with the highest supported accuracy according to class C.

Higher layer filtering

The *Measurement Filter Coefficient* IE indicates how filtering of the measurement values shall be performed before measurement event evaluation and reporting.

The averaging shall be performed according to the following formula.

$$F_n = (1-a) \cdot F_{n-1} + a \cdot M_n$$

The variables in the formula are defined as follows

F_n is the updated filtered measurement result

F_{n-1} is the old filtered measurement result

M_n is the latest received measurement result from physical layer measurements, the unit used for M_n is the same unit as the reported unit in the COMMON MEASUREMENT INITIATION RESPONSE, COMMON MEASUREMENT REPORT messages or the unit used in the event evaluation (i.e. same unit as for Fn).

$a = 1/2^{(k/2)}$ -, where k is the parameter received in the *Measurement Filter Coefficient* IE. If the *Measurement Filter Coefficient* IE is not present, *a* shall be set to 1 (no filtering).

In order to initialise the averaging filter, F_0 is set to M_1 when the first measurement result from the physical layer measurement is received.

Measurement Recovery Behavior:

If the *Measurement Recovery Behavior* IE is included in the COMMON MEASUREMENT INITIATION REQUEST message, the RNC_2 shall, if Measurement Recovery Behavior is supported, include the *Measurement Recovery Support Indicator* IE in the COMMON MEASUREMENT INITIATION RESPONSE message and perform the Measurement Recovery Behavior as described in subclause 8.5.3.2.

Response message
If the RNC_2 was able to initiate the measurement requested by RNC, it shall respond with the COMMON MEASUREMENT INITIATION RESPONSE message. The message shall include the same Measurement ID that was used in the COMMON MEASUREMENT INITIATION REQUEST message.

In the case in which the *Report Characteristics* IE is set to "On Demand" or "On Modification":

- The COMMON MEASUREMENT INITIATION RESPONSE message shall include the *Common Measurement Object Type* IE containing the measurement result. It shall also include the *Common Measurement Achieved Accuracy* IE if the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE positioning" or "UTRAN GANSS Timing of Cell Frames for UE positioning".

- If the *Common Measurement Type* IE is not set to "SFN-SFN Observed Time Difference" and if the *SFN Reporting Indicator* IE is set to "FN Reporting Required", then the RNC_2 shall include the *SFN* IE in the COMMON MEASUREMENT INITIATION RESPONSE message,. The reported SFN shall be the SFN at the time when the measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [26]. If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the *SFN Reporting Indicator* IE is ignored.

- If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the RNC_2 shall report all the available measurements in the *Successful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information* IE, and the RNC_2 shall report the neighbouring cells with no measurement result available in the *Unsuccessful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information* IE. For all available measurement results, the RNC_2 shall include in the *Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information* IE the *SFN-SFN Quality* IE and the *SFN-SFN Drift Rate Quality* IE, if available.

If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning" and the *Report Characteristics* IE is set to "On Demand" or "On Modification", the RNC_2 shall include in the $T_{UTRAN-GPS}$ *Measurement Value Information* IE the $T_{UTRAN-GPS}$ *Quality* IE and the $T_{UTRAN-GPS}$ *Drift Rate Quality* IE, if available.

If the *Common Measurement Type* IE is set to "UTRAN GANSS Timing of Cell Frames for UE Positioning" and the *Report Characteristics* IE is set to "On Demand" or "On Modification", the RNC_2 shall include in the $T_{UTRAN-GANSS}$ *Measurement Value Information* IE, the $T_{UTRAN-GANSS}$ *Quality* IE and the $T_{UTRAN-GANSS}$ *Drift Rate Quality* IE, if available.

8.5.2.2.1 Successful Operation for Iur-g

The procedure is initiated with a COMMON MEASUREMENT INITIATION REQUEST message sent from the RNC_1 to the BSS_2 or from the BSS_1 to the RNC_2/BSS_2.

Upon receipt, the RNC_2 /BSS_2 shall initiate the requested measurement according to the parameters given in the request.

Common measurement type on Iur-g

If the *Common Measurement Type* IE is set to "load", the RNC_2/BSS_2 shall initiate measurements and report results as described in section 8.5.2.2.

If the *Common Measurement Type* IE is set to "RT load", the RNC$_2$/BSS$_2$ shall initiate measurements and report results as described in section 8.5.2.2.

If the *Common Measurement Type* IE is set to "NRT load Information", the RNC$_2$/BSS$_2$ shall initiate measurements and report results as described in section 8.5.2.2.

Report characteristics on Iur-g

The *Report Characteristics* IE indicates how the reporting of the measurement shall be performed. This IE is used as described in section 8.5.2.2.

Response message for Iur-g

If the RNC$_2$/BSS$_2$ was able to initiate the measurement requested by RNC$_1$/BSS$_1$ it shall respond with the COMMON MEASUREMENT INITIATION RESPONSE message sent. The message shall include the same Measurement ID that was used in the measurement request. Only in the case when the *Report Characteristics* IE is set to "On Demand", the COMMON MEASUREMENT INITIATION RESPONSE message shall contain the measurement result.

8.5.2.3 Unsuccessful Operation

RNC$_1$ RNC$_2$

COMMON MEASUREMENT INITIATION
REQUEST

COMMON MEASUREMENT INITIATION
FAILURE
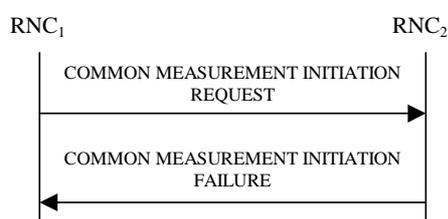
Figure 30B: Common Measurement Initiation procedure, Unsuccessful Operation

If the requested measurement cannot be initiated, the RNC$_2$ shall send a COMMON MEASUREMENT INITIATION FAILURE message. The message shall include the same *Measurement ID* IE that was used in the COMMON MEASUREMENT INITIATION REQUEST message and shall include the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause

- Measurement not supported for the object.

- Measurement Temporarily not Available

8.5.2.4 Abnormal Conditions

If the COMMON MEASUREMENT INITIATION REQUEST message contains the *SFN-SFN Measurement Threshold Information* IE (in the *Measurement Threshold* IE contained in the *Report Characteristics* IE) and it does not contain at least one IE, the RNC$_2$ shall reject the procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the COMMON MEASUREMENT INITIATION REQUEST message contains the $T_{UTRAN\text{-}GPS}$ *Measurement Threshold Information* IE (in the *Measurement Threshold* IE contained in the *Report Characteristics* IE) and it does not contain at least one IE, the RNC$_2$ shall reject the procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the COMMON MEASUREMENT INITIATION REQUEST message contains the $T_{UTRAN\text{-}GANSS}$ *Measurement Threshold Information* IE (in the *Measurement Threshold* IE contained in the *Report Characteristics* IE) and it does not contain at least one IE, the RNC$_2$ shall reject the procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE positioning", but the $T_{UTRAN\text{-}GPS}$ *Measurement Accuracy Class* IE in the *Common Measurement Accuracy* IE is not included in the COMMON

MEASUREMENT INITIATION REQUEST message, the RNC₂ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the *Common Measurement Type* IE is set to "UTRAN GANSS Timing of Cell Frames for UE positioning", but the *T$_{UTRAN-GANSS}$ Measurement Accuracy Class* IE in the *Common Measurement Accuracy* IE is not included in the COMMON MEASUREMENT INITIATION REQUEST message, the RNC₂ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the Common Measurement Type received in the *Common Measurement Type* IE is not "load", "RT load" or "NRT load Information", and if the Common Measurement Type received in the *Common Measurement Type* IE is not defined in ref. [11] or [15] to be measured on the Common Measurement Object Type indicated in the COMMON MEASUREMENT INITIATION REQUEST message the RNC₂ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", but the *Neighbouring Cell Measurement Information* IE is not received in the COMMON MEASUREMENT INITIATION REQUEST message, the RNC₂ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

The allowed combinations of the Common Measurement Type and Report Characteristics Type are shown in the table below marked with "X". For not allowed combinations, the RNC₂ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

Table 5: Allowed Common Measurement Type and Report Characteristics Type Combinations

Common measurement type	Report characteristics type								
	On Demand	Periodic	Event A	Event B	Event C	Event D	Event E	Event F	On Modification
Received total wide band power	X	X	X	X	X	X	X	X	
Transmitted Carrier Power	X	X	X	X	X	X	X	X	
UL Timeslot ISCP	X	X	X	X	X	X	X	X	
Load	X	X	X	X	X	X	X	X	
UTRAN GPS Timing of Cell Frames for UE Positioning	X	X							X
SFN-SFN Observed Time Difference	X	X							X
RT load	X	X	X	X	X	X	X	X	
NRT load Information	X	X	X	X	X	X	X	X	
UpPTS interference	X	X	X	X	X	X	X	X	
UTRAN GANSS Timing of Cell Frames for UE Positioning	X	X							X

[TDD - If the Common Measurement Type requires the Time Slot Information but the [3.84Mcps TDD and 7.68 Mcps TDD - *Time Slot* IE] [1.28Mcps TDD – *Time Slot LCR* IE] is not provided in the COMMON MEASUREMENT

INITIATION REQUEST message the RNS$_2$ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.]

If the *SFN* IE is included in the COMMON MEASUREMENT INITIATION REQUEST message and the *Report Characteristics* IE is other than "Periodic", "On Demand" or "On Modification", the RNS$_2$ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

8.5.2.4.1   Abnormal Conditions for Iur-g

The measurements which can be requested on the Iur and Iur-g interfaces are shown in the table below marked with "X".

Table 6: Allowed Common measurement type on Iur and Iur-g interfaces

Common Measurement Type	Interface	
	Iur	**Iur-g**
Received total wide band power	X	
Transmitted Carrier Power	X	
UL Timeslot ISCP	X	
Load	X	X
UTRAN GPS Timing of Cell Frames for LCS	X	
SFN-SFN Observed Time Difference	X	
RT load	X	X
NRT load Information	X	X
UTRAN GANSS Timing of Cell Frames for UE Positioning	X	

If the RNC$_2$ receives from the BSS$_1$ a COMMON MEASUREMENT INITIATION REQUEST message in which a measurement, which is not applicable on the Iur-g interface, is requested, the RNC$_2$ shall reject the Common Measurement Initiation procedure.

If the BSS$_2$ receives from the BSS$_1$ / RNC$_1$ a COMMON MEASUREMENT INITIATION REQUEST message in which a measurement, which is not applicable on the Iur-g interface, is requested, the BSS$_2$ shall reject the Common Measurement Initiation procedure.

If the RNC$_2$ receives from the BSS$_1$ a COMMON MEASUREMENT INITIATION REQUEST message in which the *SFN reporting indicator* IE is set to "FN Reporting Required", the RNC$_2$ shall ignore that IE.

If the BSS$_2$ receives from the BSS$_1$ / RNC$_1$ a COMMON MEASUREMENT INITIATION REQUEST message in which the *SFN reporting indicator* IE is set to "FN Reporting Required", the BSS$_2$ shall ignore that IE.

The allowed combinations of the Common measurement type and Report characteristics type are shown in the table in section 8.5.2.4 marked with "X". For not allowed combinations, the RNC$_2$/BSS$_2$ shall reject the Common Measurement Initiation procedure.

8.5.3 Common Measurement Reporting

8.5.3.1 General

This procedure is used by an RNC to report the result of measurements requested by another RNC using the Common Measurement Initiation.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

8.5.3.2 Successful Operation
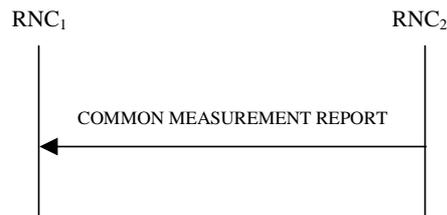
Figure 30C: Common Measurement Reporting procedure, Successful Operation

If the requested measurement reporting criteria are met, the RNC_2 shall initiate the Common Measurement Reporting procedure. Unless specified below, the meaning of the parameters are given in other specifications.

The *Measurement ID* IE shall be set to the Measurement ID provided by RNC_1 when initiating the measurement with the Common Measurement Initiation procedure.

If the achieved measurement accuracy does not fulfil the given accuracy requirement (see ref. [23] and [24]) or the measurement is temporarily not available in case Measurement Recovery Behavior is supported, the *Common Measurement Value Information* IE shall indicate Measurement not Available. If the RNC_2 was configured to perform the Measurement Recovery Behavior, the RNC_2 shall indicate Measurement Available to the RNC_1 when the achieved measurement accuracy again fulfils the given accuracy requirement (see ref. [23] and [24]) and include the *Measurement Recovery Report Indicator* IE in the COMMON MEASUREMENT REPORT message if the requested measurement reporting criteria are not met.

For measurements included in the *Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information* IE, the RNC_2 shall include the *SFN-SFN Quality* IE and the *SFN-SFN Drift Rate Quality* IE if available.

If the Common Measurement Type provided by RNC_1 when initiating the measurement with the Common Measurement Initiation procedure was "UTRAN GPS Timing of Cell Frames for UE Positioning", then the RNC_2 shall include in the $T_{UTRAN-GPS}$ *Measurement Value Information* IE the $T_{UTRAN-GPS}$ *Quality* IE and the $T_{UTRAN-GPS}$ *Drift Rate Quality* IE, if available.

If the Common Measurement Type provided by RNC_1 when initiating the measurement with the Common Measurement Initiation procedure was "UTRAN GANSS Timing of Cell Frames for UE Positioning", then the RNC_2 shall include in the $T_{UTRAN-GANSS}$ *Measurement Value Information* IE the $T_{UTRAN-GANSS}$ *Quality* IE and the $T_{UTRAN-GANSS}$ *Drift Rate Quality* IE, if available.

8.5.3.2.1 Successful Operation for Iur-g

If the requested measurement reporting criteria are met, the RNC_2/BSS_2 shall initiate a Measurement Reporting procedure. Unless specified below, the meaning of the parameters are given in other specifications.

The *Common Measurement ID* IE shall be set to the Common Measurement ID provided by RNC_1/BSS_1 when initiating the measurement with the Common Measurement Initiation procedure.

If the Common measurement type provided by RNC_1 when initiating the measurement with the Common Measurement Initiation procedure was "SFN-SFN Observed Time Difference", then RNC_2 shall include in the COMMON MEASUREMENT REPORT all the available measurements in the *Successful Neighbouring cell SFN-SFN Observed*

Time Difference Measurement Information IE and shall include the neighbouring cells with no measurement result available in the *Unsuccessful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information* IE.

If the Common measurement type provided by RNC_1 when initiating the measurement with the Common Measurement Initiation procedure was not set to "SFN-SFN Observed Time Difference" and the SFN Reporting Indicator when initiating the measurement was set to "FN Reporting Required", the RNC_2 shall include the *SFN* IE in the COMMON MEASUREMENT REPORT message. The reported SFN shall be the SFN at the time when the measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [26]. If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the *SFN Reporting Indicator* IE is ignored.

8.5.3.3   Abnormal Conditions

-

8.5.4   Common Measurement Termination

8.5.4.1   General

This procedure is used by an RNC to terminate a measurement previously requested by the Common Measurement Initiation procedure.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

8.5.4.2   Successful Operation

RNC_1 RNC_2

COMMON MEASUREMENT TERMINATION
REQUEST

Figure 30D: Common Measurement Termination procedure, Successful Operation

This procedure is initiated with a COMMON MEASUREMENT TERMINATION REQUEST message.

Upon receipt, RNC_2 shall terminate reporting of common measurements corresponding to the received *Measurement ID* IE.

8.5.4.2.1   Successful Operation for Iur-g

The RNC_1/BSS_1 and RNC_2/BSS_2 shall use the Common Measurement Termination procedure as specified in section 8.5.4.2.

8.5.4.3   Abnormal Conditions

-

8.5.5   Common Measurement Failure

8.5.5.1   General

This procedure is used by an RNC to notify another RNC that a measurement previously requested by the Common Measurement Initiation procedure can no longer be reported.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

8.5.5.2 Successful Operation

Figure 30E: Common Measurement Failure procedure, Successful Operation

This procedure is initiated with a COMMON MEASUREMENT FAILURE INDICATION message, sent from RNC_2 to RNC_1 to inform the RNC_1 that a previously requested measurement can no longer be reported. RNC_2 has locally terminated the indicated measurement. The RNC_2 shall include in the COMMON MEASUREMENT FAILURE INDICATION message the reason for the failure in the *Cause* IE.

8.5.5.2.1 Successful Operation for Iur-g

The RNC_1/BSS_1 and RNC_2/BSS_2 shall use the Common Measurement Failure procedure as specified in section 8.5.5.2.

8.5.5.3 Abnormal Conditions

-

8.5.6 Information Exchange Initiation

8.5.6.1 General

This procedure is used by an RNC to request the initiation of an information exchange with another RNC.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

8.5.6.2 Successful Operation
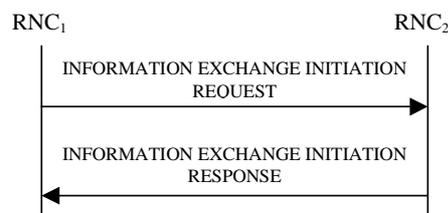
Figure 30F: Information Exchange Initiation procedure, Successful Operation

The procedure is initiated with an INFORMATION EXCHANGE INITIATION REQUEST message sent from RNC_1 to RNC_2.

Upon receipt, the RNC_2 shall provide the requested information according to the parameters given in the request. Unless specified below, the meaning of the parameters are given in other specifications.

If the *Information Exchange Object Type* is set to "MBMS Bearer Service" and the *Information Type Item* IE is set to "MBMS Bearer Service Full Address", the RNC_2 shall report for each TMGI included in the received *MBMS Bearer Service Identifiers List* IE, the Access Point Name and the IP Multicast Address corresponding to this TMGI in the *MBMS Bearer Service Identifiers List* IE in the INFORMATION EXCHANGE INITIATION RESPONSE message.

If the *Information Type* IE contains a *GANSS Generic Data* IE, at least one of the *GANSS Navigation Model And Time Recovery*, *GANSS Time Model GNSS-GNSS*, *GANSS UTC Model*, *GANSS Almanac*, *GANSS Real Time Integrity*, *GANSS Data Bit Assistance* IEs shall be present in the *GANSS Generic Data* IE.

- If the *GANSS Generic Data* IE does not contain the *GANSS ID* IE, the RNC$_2$ shall assume that the corresponding GANSS is "Galileo".

Information Report Characteristics:

The *Information Report Characteristics* IE indicates how the reporting of the information shall be performed.

If the *Information Report Characteristics* IE is set to "On Demand", the RNC$_2$ shall report the requested information immediately.

If the *Information Report Characteristics* IE is set to "Periodic", the RNC$_2$ shall report the requested information immediately and then shall periodically initiate the Information Reporting procedure for all the requested information, with the report frequency indicated by the *Information Report Periodicity* IE.

If the *Information Report Characteristics* IE is set to "On Modification", the RNC$_2$ shall report the requested information immediately if available. If the requested information is not available at the moment of receiving the INFORMATION EXCHANGE INITIATION REQUEST message, but expected to become available after some acquisition time, the RNC$_2$ shall initiate the Information Reporting procedure when the requested information becomes available. The RNC$_2$ shall then initiate the Information Reporting procedure in accordance to the following conditions:

- If the *Information Type Item* IE is set to "IPDL Parameters", the RNC$_2$ shall initiate the Information Reporting procedure when any change in the parameters occurs.

- If the *Information Type Item* IE is set to "DGPS Corrections", the RNC$_2$ shall initiate the Information Reporting procedure for this specific Information Type when either the PRC has drifted from the previously reported value more than the threshold indicated in the *PRC Deviation* IE in the *Information Threshold* IE or a change has occurred in the IODE.

- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Navigation Model & Recovery Assistance", the RNC$_2$ shall initiate the Information Reporting procedure for this specific GPS Information Item when a change has occurred regarding either the IODC or the list of visible satellites, identified by the *Sat ID* IEs.

- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Ionospheric Model", the RNC$_2$ shall initiate the Information Reporting procedure for this specific GPS Information Item when any change has occurred.

- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS UTC Model", the RNC$_2$ shall initiate the Information Reporting procedure for this specific GPS Information Item when a change has occurred in the t_{ot} or WN_t parameter.

- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Almanac", the RNC$_2$ shall initiate the Information Reporting procedure for this specific GPS Information Item when a change in the t_{oa} or WN_a parameter has occurred.

- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Real-Time Integrity", the RNC$_2$ shall initiate the Information Reporting procedure for this specific GPS Information Item when any change has occurred.

- If the *Information Type* IE is set to "Cell Capacity Class", the RNC$_2$ shall initiate the Information Reporting procedure for uplink and downlink cell capacity class when any change has occurred. If either uplink or downlink cell capacity class satisfies the requested report characteristics, the RNC$_2$ shall report the result of both uplink and downlink cell capacity information.

- If any of the above *Information Type* IEs becomes temporarily unavailable, the RNC$_2$ shall initiate the Information Reporting procedure for this specific Information Item by indicating "Information Not Available" in the *Requested Data Value Information* IE. If the Information becomes available again, the RNC$_2$ shall initiate the Information Reporting procedure for this specific Information.

- If the *Information Type* IE is set to "NACC related data", the RNC$_2$ shall initiate the Information Reporting procedure for NACC related data if any change has occurred.

- If the *Information Type* IE is set to "Inter-frequency Cell Information", the RNC$_2$ shall initiate the Information Reporting procedure for this specific Information Item when any change has occurred to the inter-frequency cell information broadcasted in the SIB11 or SIB12.

- If the *Information Type Item* IE is set to "DGANSS Corrections", the RNC$_2$ shall initiate the Information Reporting procedure for this specific Information Type when either the PRC has drifted from the previously reported value more than the threshold indicated in the *PRC Deviation* IE in the *Information Threshold* IE or a change has occurred in the IODE.

- If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Navigation Model And Time Recovery* IE, the RNC$_2$ shall initiate the Information Reporting procedure for this specific GANSS Information Item when a change has occurred regarding either the IOD or the list of visible satellites, identified by the *Sat ID* IEs.

- If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Ionospheric Model* IE, the RNC$_2$ shall initiate the Information Reporting procedure for this specific GANSS Information Item when any change has occurred.

- If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS UTC Model* IE, the RNC$_2$ shall initiate the Information Reporting procedure for this specific GANSS Information Item when a change has occurred in the t_{ot} or WN_t parameter.

- If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Almanac* IE, the RNC$_2$ shall initiate the Information Reporting procedure for this specific GANSS Information Item when a change in the T_{oa}, IOD_a, or Week Number parameter has occurred.

- If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Real Time Integrity* IE, the RNC$_2$ shall initiate the Information Reporting procedure for this specific GANSS Information Item when any change has occurred.

- If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Data Bit Assistance* IE, the RNC$_2$ shall initiate the Information Reporting procedure for this specific GANSS Information Item when any change has occurred.

Response message:

If the RNC$_2$ is able to determine the information requested by the RNC$_1$, it shall respond with the INFORMATION EXCHANGE INITIATION RESPONSE message. The message shall include the *Information Exchange ID* IE set to the same value that was included in the INFORMATION EXCHANGE INITIATION REQUEST message. When the *Report Characteristics* IE is set to or "On Modification" or "Periodic", the INFORMATION EXCHANGE INITIATION RESPONSE message shall contain the *Requested Data Value* IE if the data are available. When the *Report Characteristics* IE is set to "On Demand", the INFORMATION EXCHANGE INITIATION RESPONSE message shall contain the *Requested Data Value* IE.

If the *Requested DataValue* IE contains the *GANSS Common Data* IE, at least one of the *GANSS Ionospheric Model* or *GANSS RX Pos* IEs shall be present.

Any *GANSS Generic Data* IE associated with a given GANSS included in the *Requested DataValue* IE shall contain at least one of the *DGANSS Corrections, GANSS Navigation Model And Time Recovery, GANSS Time Model, GANSS UTC Model, GANSS Almanac, GANSS Real Time Integrity* or *GANSS Data Bit Assistance* IEs.

- If the *GANSS Generic Data* IE does not contain the *GANSS ID* IE, the corresponding GANSS is "Galileo".

- The *DGANSS Corrections* IE contains one or several *DGANSS Information* IE(s), each of them associated with a GANSS Signal. A *DGANSS Information* IE for "Galileo" that does not contain the *GANSS Signal ID* IE is by default associated with "Galileo L1 OS" (see [53]).

- The *GANSS Real Time Integrity* IE contains one or several *Satellite Information* IEs, each of them associated with a satellite and a GANSS Signal. A *Satellite Information* IE for "Galileo" that does not contain the *Bad GANSS Signal ID* IE is by default associated with all the signals of the corresponding satellite (see [53]).

8.5.6.2.1 Successful Operation for Iur-g

The procedure is initiated with an INFORMATION EXCHANGE INITIATION REQUEST message sent from BSS$_1$ to BSS$_2$/RNC$_2$ or by RNC$_1$ to BSS$_2$.

Upon receipt, the BSS$_2$/RNC$_2$ shall provide the requested information according to the parameters given in the request. Unless specified below, the meaning of the parameters are given in other specifications.

Information Report Characteristics on Iur-g:

If the *Information Type Item* IE is set to "Cell Capacity Class", the RNC$_2$/BSS$_2$ shall initiate measurements and report results as described in section 8.5.6.2.

The *Information Report Characteristics* IE indicates how the reporting of the information shall be performed. This IE is used as described in section 8.5.6.2.

8.5.6.3   Unsuccessful Operation
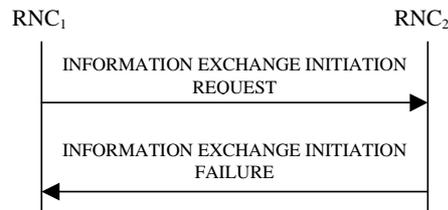
Figure 30G: Information Exchange Initiation procedure, Unsuccessful Operation

If the requested Information Type received in the *Information Type* IE indicates a type of information that RNC$_2$ cannot provide, the RNC$_2$ shall reject the Information Exchange Initiation procedure.

If the requested information provision cannot be accessed, the RNC$_2$ shall reject the procedure and shall send the INFORMATION EXCHANGE INITIATION FAILURE message.

The message shall include the *Information Exchange ID* IE set to the same value that was used in the INFORMATION EXCHANGE INITIATION REQUEST message and the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause:

- Information temporarily not available.

- Information Provision not supported for the object.

8.5.6.4   Abnormal Conditions

If the *Information Report Characteristics* IE is set to "On Modification", and the *Information Type Item* IE is set to "DGPS Corrections", but the *Information Threshold* IE is not received in the INFORMATION EXCHANGE INITIATION REQUEST message, the RNC$_2$ shall reject the Information Exchange Initiation procedure and shall send the INFORMATION EXCHANGE INITIATION FAILURE message.

If the *Information Exchange Object Type* IE is set to a value other than "GSM Cell" and the *Information Type Item* IE set to "NACC related data" the RNC$_2$ shall reject the Information Exchange Initiation procedure and shall send the INFORMATION EXCHANGE INITIATION FAILURE message.

If the *Information Type Item* IE is set to the value "MBMS Bearer Service Full Address" and the *Information Exchange Object Type* IE is not set to "MBMS Bearer Service", the RNC$_2$ shall reject the Information Exchange Initiation procedure and shall send the INFORMATION EXCHANGE INITIATION FAILURE message.

The allowed combinations of the Information type and Information Report Characteristics type are shown in the table below marked with "X". For not allowed combinations, the RNC$_2$ shall reject the Information Exchange Initiation procedure using the INFORMATION EXCHANGE INITIATION FAILURE message.

Table 6a: Allowed Information Type and Information Report Characteristics type combinations

Type	Information Report Characteristics Type		
	On Demand	**Periodic**	**On Modification**
UTRAN Access Point Position with Altitude Information	X		
UTRAN Access Point Position	X		
IPDL Parameters	X	X	X
GPS Information	X	X	X
DGPS Corrections	X	X	X
GPS RX Pos	X		
SFN-SFN Measurement Reference Point Position	X		
Cell Capacity Class	X		X
NACC related data	X		X
MBMS Bearer Service Full Address	X		
Inter-frequency Cell Information	X		X
GANSS Information	X	X	X
DGANSS Corrections	X	X	X
GANSS RX Pos	X		

8.5.6.4.1 Abnormal Conditions for Iur-g

The information types that can be requested on the Iur and Iur-g interfaces are shown in the table below marked with "X". For information types that are not applicable on the Iur-g interface, the BSS shall reject the Information Exchange Initiation procedure.

Table 7: Allowed Information types on Iur and Iur-g interfaces

Information Type	Interface	
	Iur	**Iur-g**
UTRAN Access Point Position with Altitude Information	X	
UTRAN Access Point Position	X	
IPDL Parameters	X	

DGPS Corrections	X	
GPS Information	X	
GPS RX Pos	X	
SFN-SFN Measurement Reference Point Position	X	
Cell Capacity Class	X	X
NACC related data	X	
MBMS Bearer Service Full Address	X	
Inter-frequency Cell Information	X	
DGANSS Corrections	X	
GANSS Information	X	
GANSS RX Pos	X	

8.5.7 Information Reporting

8.5.7.1 General

This procedure is used by a RNC to report the result of information requested by another RNC using the Information Exchange Initiation.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

8.5.7.2 Successful Operation
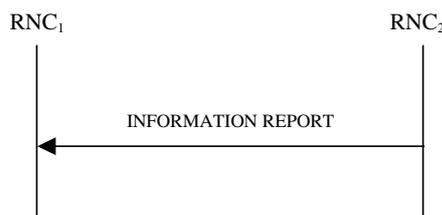
Figure 30H: Information Reporting procedure, Successful Operation

If the requested information reporting criteria are met, the RNC$_2$ shall initiate an Information Reporting procedure. Unless specified below, the meaning of the parameters are given in other specifications.

The *Information Exchange ID* IE shall be set to the Information Exchange ID provided by the RNC$_1$ when initiating the information exchange with the Information Exchange Initiation procedure.

The *Requested Data Value* IE shall include at least one IE containing the data to be reported.

8.5.7.2.1 Successful Operation for Iur-g

The RNC$_1$/BSS$_1$ and RNC$_2$/BSS$_2$ shall use the Information Reporting procedure as specified in section 8.5.7.2.

8.5.7.3 Abnormal Conditions

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8.5.8 Information Exchange Termination

8.5.8.1 General

This procedure is used by a RNC to terminate the information exchange requested using the Information Exchange Initiation.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

8.5.8.2 Successful Operation

RNC₁   RNC₂

INFORMATION EXCHANGE TERMINATION
REQUEST

Figure 30I: Information Exchange Termination procedure, Successful Operation

This procedure is initiated with a INFORMATION EXCHANGE TERMINATION REQUEST message.

Upon receipt, the RNC_2 shall terminate the information exchange corresponding to the *Information Exchange ID* IE provided by the RNC_1 when initiating the information exchange with the Information Exchange Initiation procedure.

8.5.8.2.1 Successful Operation for Iur-g

The RNC_1/BSS_1 and RNC_2/BSS_2 shall use the Information Exchange Termination procedure as specified in section 8.5.8.2.

8.5.8.3 Abnormal Conditions

-

8.5.9 Information Exchange Failure

8.5.9.1 General

This procedure is used by a RNC to notify another that the information exchange it previously requested using the Information Exchange Initiation can no longer be reported.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

8.5.9.2 Successful Operation

RNC₁   RNC₂

INFORMATION EXCHANGE FAILURE
INDICATION
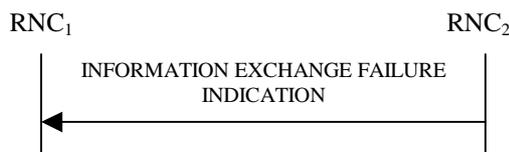
Figure 30J: Information Exchange Failure procedure, Successful Operation

This procedure is initiated with a INFORMATION EXCHANGE FAILURE INDICATION message, sent from the RNC_2 to the RNC_1, to inform the RNC_1 that information previously requested by the Information Exchange Initiation

procedure can no longer be reported. The RNC$_2$ shall include in the INFORMATION EXCHANGE FAILURE INDICATION message the *Information Exchange ID* IE set to the same value provided by the RNC$_1$ when initiating the information exchange with the Information Exchange Initiation procedure, and the RNC$_2$ shall include the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause:

Information temporarily not available.

8.5.9.2.1 Successful Operation for Iur-g

The RNC$_1$/BSS$_1$ and RNC$_2$/BSS$_2$ shall use the Information Exchange Failure procedure as specified in section 8.5.9.2.

8.5.10 Reset

8.5.10.1 General

The purpose of the reset procedure is to align the resources in RNC$_1$ and RNC$_2$ in the event of an abnormal failure.

The procedure uses connectionless signalling.

8.5.10.2 Successful Operation

```
RNC₁                                              RNC₂
  |                RESET REQUEST                     |
  |------------------------------------------------->|
  |                RESET RESPONSE                     |
  |<-------------------------------------------------|
```
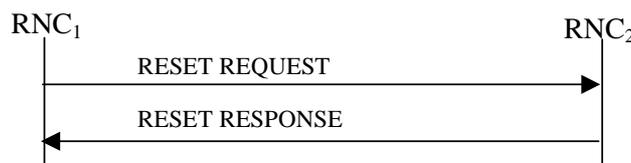
Figure 30K: Reset procedure, Successful Operation

The procedure is initiated with a RESET REQUEST message sent from the RNC$_1$ to the RNC$_2$.

If the *Reset Indicator* IE is set to "Context", then:

- For all indicated UE Contexts identified by the *S-RNTI* IE, the RNC$_2$ in the role of DRNC, shall remove all the indicated UE Contexts and all the radio resources allocated for these UE Contexts. In addition, the RNC2 shall take actions according to Annex D.2.

- For all indicated UE Contexts identified by the *D-RNTI* IE, the RNC$_2$ in the role of SRNC, shall remove the information related to the RNC1 for all indicated UE Contexts and the radio resources allocated for these UE Contexts.

If the *Reset Indicator* IE is set to "Context Group", then:

- For all indicated UE Context Groups identified by the *S-RNTI Group* IE, the RNC$_2$ in the role of DRNC, shall remove all the indicated UE Contexts and all the radio resources allocated for these UE Contexts. In addition, the RNC2 shall take actions according to Annex D.2.

If the *Reset Indicator* IE is set to "All Contexts", then the RNC$_2$ shall:

- In the role of DRNC, remove all the UE Contexts for which the RNC$_1$ is the SRNC and all the radio resources allocated for these UE Contexts. In addition, the RNC2 shall take actions according to Annex D.2.

- In the role of SRNC, remove the information related to the RNC$_1$ for all the UE Contexts and all the radio resources allocated for these UE Contexts.

For all the removed UE Contexts and for all the UE Contexts for which the RNC$_2$ has removed information related to the RNC$_1$, the RNC$_2$ shall also initiate release of the dedicated or common user plane resources that were involved in

these UE Contexts. After clearing all related resources, the RNC$_2$ shall return the RESET RESPONSE message to the RNC$_1$.

8.5.10.3   Abnormal Conditions

If the RESET message is received, any other ongoing procedure (except another Reset procedure) on same Iur interface related to a context indicated explicitly or implicitly in the message shall be aborted.

8.5.11   Direct Information Transfer

8.5.11.1   General

This procedure is used by an RNC to transfer information to another RNC spontaneously.

This procedure shall use the connectionless mode of signalling bearer.

8.5.11.2   Successful Operation
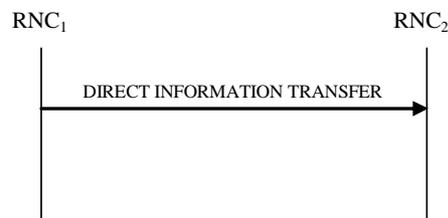
Figure 30L: Direct Information Transfer procedure, Successful Operation

The procedure is initiated with an DIRECT INFORMATION TRANSFER message sent from RNC$_1$ to RNC$_2$.

If the initiating RNC of this procedure is RNC$_1$, RNC$_1$ shall provide appropriate information in the *Provided Information* IE.

MBMS Channel Type Indication:

At the start time of a session for an MBMS bearer service, if the RNC$_1$ is in the DRNC role for some UEs whose UE Link contains the concerned MBMS bearer service and whose SRNC is RNC$_2$ and if the channel type is determined by the RNC$_1$ for certain cells in the DRNS, the procedure shall be initiated by the RNC$_1$ to the RNC$_2$. In this case, the RNC$_1$ shall include in the *Provided Information* IE the *Channel Type Information* IE in the DIRECT INFORMATION TRANSFER message.

During a session of an MBMS bearer service, if the RNC$_1$ is in the DRNC role for some UEs whose UE Link contains the concerned MBMS bearer service and whose SRNC is RNC$_2$, then the RNC$_1$ may initiate this procedure to indicate channel type change for the MBMS bearer service in certain cells. In this case, the RNC$_1$ shall include in the *Provided Information* IE the *Channel Type Information* IE in the DIRECT INFORMATION TRANSFER message.

The RNC$_1$ shall include the available information within the *PTM Cell List* IE, the *PTP Cell List* IE and/or the *Not Provided Cell List* IE in the *Channel Type Information* IE.

MBMS Preferred Frequency Layer Indication:

At the start time of a session for an MBMS bearer service, if the RNC$_1$ is in the DRNC role for at least one CELL_DCH UE whose UE Link contains the concerned MBMS bearer service and whose SRNC is RNC$_2$ and if the preferred frequency layer is determined by the RNC$_1$ for certain cells that host at least one of these CELL_DCH UEs whose SRNC is RNC$_2$, the procedure shall be initiated by the RNC$_1$ to the RNC$_2$. In this case, the RNC$_1$ shall include in the *Provided Information* IE the *Preferred Frequency Layer Information* IE in the DIRECT INFORMATION TRANSFER message.

If some of the cells controlled by RNC$_1$ that host at least one of these CELL_DCH UEs whose SRNC is RNC$_2$ are configured with different preferred frequencies, the *Additional Preferred Frequency* IE as well as *Default Preferred*

Frequency IE shall be included in the *Preferred Frequency Layer Information* IE. In this case, for each preferred frequency different from the *Default Preferred Frequency* IE, one *Additional Preferred Frequency* IE shall be included containing at least one *Corresponding Cells* IE.

8.6 MBMS Procedures

8.6.1 MBMS Attach

8.6.1.1 General

The MBMS Attach procedure is used by the SRNC to either create a UE Link/URA Link in the DRNC or inform the DRNC about any addition of one or several MBMS bearer services in an already stored UE Link or URA Link.

This procedure shall use the signalling bearer mode specified below.

8.6.1.2 Successful Operation
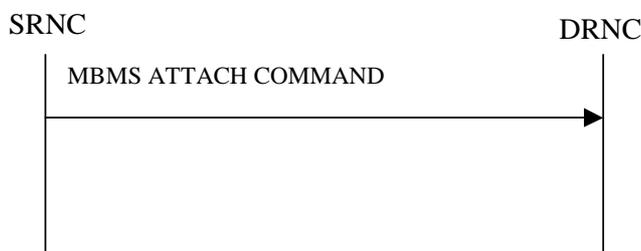
Figure 31: MBMS Attach procedure, Successful Operation

The SRNC initiates the procedure by sending the message MBMS ATTACH COMMAND message to the DRNC.

When the UE is utilising one or more radio links in the DRNC, the message shall be sent using the connection oriented service of the signalling bearer and no further identification of the UE Context in the DRNC is required. If the UE is not utilising any radio link, the message shall be sent using the connectionless service of the signalling bearer.

If no *UE State* IE is included in the message or the *UE State* IE is set to "CELL_FACH/CELL_PCH", the DRNC shall perform the UE Linking as specified in [50], section 5.1.6.

If the *UE State* IE is set to "URA_PCH", the DRNC shall perform the URA Linking as specified in [50], section 5.1.10.

8.6.1.3 Abnormal Conditions

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8.6.2 MBMS Detach

8.6.2.1 General

The MBMS Detach procedure is used by the SRNC to either delete a UE Link/URA Link in the DRNC or to inform DRNC about any removal of one or several MBMS bearer services in an already stored UE link or URA Link.

This procedure shall use the signalling bearer mode specified below.

8.6.2.2 Successful Operation

Figure 32: MBMS Detach procedure, Successful Operation

The SRNC initiates the procedure by sending the message MBMS DETACH COMMAND message to the DRNC.

When the UE is utilising one or more radio links in the DRNC, the message shall be sent using the connection oriented service of the signalling bearer and no further identification of the UE Context in the DRNC is required. If the UE is not utilising any radio link, the message shall be sent using the connectionless service of the signalling bearer.

If no *UE State* IE is included in the message or the *UE State* IE is set to "CELL_FACH/CELL_PCH", the DRNC shall perform the UE De-linking as specified in [50], section 5.1.6.

If the *UE State* IE is set to "URA_PCH", the DRNC shall perform the URA De-linking as specified in [50], section 5.1.10.

8.6.2.3 Abnormal Conditions

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9 Elements for RNSAP Communication

9.1 Message Functional Definition and Content

9.1.1 General

This subclause defines the structure of the messages required for the RNSAP protocol in tabular format. The corresponding ASN.1 definition is presented in subclause 9.3. In case there is contradiction between the tabular format in subclause 9.1 and the ASN.1 definition, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional IEs, in which the tabular format shall take precedence.

NOTE: The messages have been defined in accordance to the guidelines specified in [28].

9.1.2 Message Contents

9.1.2.1 Presence

An information element can be of the following types:

M	IEs marked as Mandatory (M) shall always be included in the message.
O	IEs marked as Optional (O) may or may not be included in the message.
C	IEs marked as Conditional (C) shall be included in a message only if the condition is satisfied. Otherwise the IE shall not be included.

In the case of an Information Element group, the group is preceded by a name for the info group (in bold). It is also indicated how many times a group may be repeated in the message and whether the group is conditional. Each group may be also repeated within one message. The presence field of the Information Elements inside one group defines if the Information Element is mandatory, optional or conditional if the group is present.

9.1.2.2 Criticality

Each information element or Group of information elements may have criticality information applied to it. Following cases are possible:

–	No criticality information is applied explicitly.
YES	Criticality information is applied. 'YES' is usable only for non-repeatable information elements.
GLOBAL	The information element and all its repetitions together have one common criticality information. 'GLOBAL' is usable only for repeatable information elements.
EACH	Each repetition of the information element has its own criticality information. It is not allowed to assign different criticality values to the repetitions. 'EACH' is usable only for repeatable information elements.

9.1.2.3 Range

The Range column indicates the allowed number of copies of repetitive IEs/IE groups.

9.1.2.4 Assigned Criticality

This column provides the actual criticality information as defined in subclause 10.3.2, if applicable.

9.1.3   RADIO LINK SETUP REQUEST

9.1.3.1   FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
SRNC-ID	M		RNC-ID 9.2.1.50	If the *Extended SRNC-ID* IE is included in the message, the *SRNC-ID* IE shall be ignored.	YES	reject
S-RNTI	M		9.2.1.53		YES	reject
D-RNTI	O		9.2.1.24		YES	reject
Allowed Queuing Time	O		9.2.1.2		YES	reject
UL DPCH Information		*1*			YES	reject
>UL Scrambling Code	M		9.2.2.53		–	
>Min UL Channelisation Code Length	M		9.2.2.25		–	
>Max Number of UL DPDCHs	C – CodeLen		9.2.2.24		–	
>Puncture Limit	M		9.2.1.46	For the UL.	–	
>TFCS	M		9.2.1.63		–	
>UL DPCCH Slot Format	M		9.2.2.52		–	
>Uplink SIR Target	O		Uplink SIR 9.2.1.69		–	
>Diversity mode	M		9.2.2.8		–	
>Not Used	O		NULL		–	
>Not Used	O		NULL		–	
>DPC Mode	O		9.2.2.12A		YES	reject
>UL DPDCH Indicator for E-DCH operation	O		9.2.2.52A	This IE may be present without the presence of the *E-DPCH Information* IE	YES	reject

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DL DPCH Information		*0..1*			YES	reject
>TFCS	M		9.2.1.63		–	
>DL DPCH Slot Format	M		9.2.2.9		–	
>Number of DL Channelisation Codes	M		9.2.2.26A		–	
>TFCI Signalling Mode	M		9.2.2.46		–	
>TFCI Presence	C-SlotFormat		9.2.1.55		–	
>Multiplexing Position	M		9.2.2.26		–	
>Power Offset Information		*1*			–	
>>PO1	M		Power Offset 9.2.2.30	Power offset for the TFCI bits.	–	
>>PO2	M		Power Offset 9.2.2.30	Power offset for the TPC bits.	–	
>>PO3	M		Power Offset 9.2.2.30	Power offset for the pilot bits.	–	
>FDD TPC Downlink Step Size	M		9.2.2.16		–	
>Limited Power Increase	M		9.2.2.21A		–	
>Inner Loop DL PC Status	M		9.2.2.21a		–	
DCH Information	M		DCH FDD Information 9.2.2.4A		YES	reject
RL Information		*1..<maxno ofRLs>*			EACH	notify
>RL ID	M		9.2.1.49		–	
>C-ID	M		9.2.1.6		–	
>First RLS Indicator	M		9.2.2.16A		–	
>Frame Offset	M		9.2.1.30		–	
>Chip Offset	M		9.2.2.1		–	
>Propagation Delay	O		9.2.2.33		–	
>Diversity Control Field	C – NotFirstR		9.2.1.20		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
	L					
>Initial DL TX Power	O		DL Power 9.2.1.21A		–	
>Primary CPICH Ec/No	O		9.2.2.32		–	
>Not Used	O		NULL		–	
>Transmit Diversity Indicator	C – Diversity mode		9.2.2.48		–	
>Enhanced Primary CPICH Ec/No	O		9.2.2.13I		YES	ignore
>RL Specific DCH Information	O		9.2.1.49A		YES	ignore
>Delayed Activation	O		9.2.1.19Aa		YES	reject
>Cell Portion ID	O		9.2.2.E		YES	ignore
>RL specific E-DCH Information	O		9.2.2.35a		YES	reject
>E-DCH RL Indication	O		9.2.2.4E		YES	reject
>Extended Propagation Delay	O		9.2.2.33a		YES	ignore
>Synchronisation Indicator	O		9.2.2.45A		YES	reject
Transmission Gap Pattern Sequence Information	O		9.2.2.47A		YES	reject
Active Pattern Sequence Information	O		9.2.2.A		YES	reject
Permanent NAS UE Identity	O		9.2.1.73		YES	ignore
DL Power Balancing Information	O		9.2.2.10A		YES	ignore
HS-DSCH Information	O		HS-DSCH FDD Information 9.2.2.19a		YES	reject
HS-PDSCH RL ID	C – InfoHSDSCH		RL ID 9.2.1.49		YES	reject
MBMS Bearer Service List		*0..<maxnoofMBMS>*			GLOBAL	notify
>TMGI	M		9.2.1.80		–	

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IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-DPCH Information		*0..1*			YES	reject
>Maximum Set of E-DPDCHs	M		9.2.2.24e		–	
>Puncture Limit	M		9.2.1.46		–	
>E-TFCS Information	M		9.2.2.4G		–	
>E-TTI	M		9.2.2.4J		–	
>E-DPCCH Power Offset	M		9.2.2.4K		–	
>E-RGCH 2-Index-Step Threshold	M		9.2.2.64		–	
>E-RGCH 3-Index-Step Threshold	M		9.2.2.65		–	
>HARQ Info for E-DCH	M		9.2.2.66		–	
>HS-DSCH Configured Indicator	M		9.2.2.19C		–	
E-DCH FDD Information	C-EDCHInfo		9.2.2.4B		YES	reject
Serving E-DCH RL	O		9.2.2.38C		YES	reject
F-DPCH Information		*0..1*			YES	reject
>Power Offset Information		*1*			–	
>>PO2	M		Power Offset 9.2.2.30	This IE shall be ignored by DRNS.	–	
>FDD TPC Downlink Step Size	M		9.2.2.16		–	
>Limited Power Increase	M		9.2.2.21A		–	
>Inner Loop DL PC Status	M		9.2.2.21a		–	
>F-DPCH Slot Format Support Request	O		9.2.2.86		YES	reject
>F-DPCH Slot Format	O		9.2.2.85		YES	Ignore
Initial DL DPCH Timing Adjustment Allowed	O		9.2.2.21b		YES	ignore
DCH Indicator For E-DCH-HSDPA Operation	O		9.2.2.67		YES	reject
Serving Cell Change CFN	O		CFN 9.2.1.9		YES	reject
Continuous Packet Connectivity DTX-DRX	O		9.2.2.72		YES	reject

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Information						
Continuous Packet Connectivity HS-SCCH less Information	O		9.2.2.74		YES	reject
Extended SRNC-ID	O		Extended RNC-ID 9.2.1.50a	The *Extended SRNC-ID* IE shall be used if the RNC identity has a value larger than 4095.	YES	reject

Condition	Explanation
CodeLen	The IE shall be present if *Min UL Channelisation Code length* IE equals to 4
SlotFormat	The IE shall be present if the *DL DPCH Slot Format* IE is equal to any of the values from 12 to 16.
NotFirstRL	The IE shall be present if the RL is not the first one in the *RL Information* IE.
Diversity mode	The IE shall be present if *Diversity Mode* IE in *UL DPCH Information* IE is not equal to "none".
InfoHSDSCH	This IE shall be present if *HS-DSCH Information* IE is present.
EDCHInfo	This IE shall be present if *E-DPCH Information* IE is present.

Range bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE.
maxnoofMBMS	Maximum number of MBMS bearer services that a UE can join.

9.1.3.2   TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
SRNC-ID	M		RNC-ID 9.2.1.50	If the *Extended SRNC-ID* IE is included in the message, the *SRNC-ID* IE shall be	YES	reject

				ignored.		
S-RNTI	M		9.2.1.53		YES	reject
D-RNTI	O		9.2.1.24		YES	reject
UL Physical Channel Information		*1*			YES	reject
>Maximum Number of Timeslots	M		9.2.3.3A	For the UL	–	
>Minimum Spreading Factor	M		9.2.3.4A	For the UL	–	
>Maximum Number of UL Physical Channels per Timeslot	M		9.2.3.3B		–	
>Support of 8PSK	O		9.2.3.7H	Applicable to 1.28Mcps TDD only	YES	ignore
>Minimum Spreading Factor 7.68Mcps	O		9.2.3.19	Applicable to 7.68Mcps TDD only	YES	ignore
DL Physical Channel Information		*1*			YES	reject
>Maximum Number of Timeslots	M		9.2.3.3A	For the DL	–	
>Minimum Spreading Factor	M		9.2.3.4A	For the DL	–	
>Maximum Number of DL Physical Channels	M		9.2.3.3C		–	
>Maximum Number of DL Physical Channels per Timeslot	O		9.2.3.3D		YES	ignore
>Support of 8PSK	O		9.2.3.7H	Applicable to 1.28Mcps TDD only	YES	ignore
>Support of PLCCH	O		9.2.3.16	Applicable to 1.28Mcps TDD only	YES	ignore
>Minimum Spreading Factor 7.68Mcps	O		9.2.3.19	Applicable to 7.68Mcps TDD only	YES	ignore
>Maximum Number of DL Physical Channels 7.68Mcps	O		9.2.3.20	Applicable to 7.68Mcps TDD only	YES	ignore
>Maximum Number of DL Physical Channels per Timeslot 7.68Mcps	O		9.2.3.21	Applicable to 7.68Mcps TDD only	YES	ignore
Allowed Queuing Time	O		9.2.1.2		YES	reject
UL CCTrCH Information		*0..<maxno ofCCTrC*		For DCH	EACH	notify

		Hs>	and USCH		
>CCTrCH ID	M		9.2.3.2		–
>TFCS	M		9.2.1.63	For the UL.	–
>TFCI Coding	M		9.2.3.11		–
>Puncture Limit	M		9.2.1.46		–
>TDD TPC Uplink Step Size	O		9.2.3.10a	Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD or 7.68Mcps TDD	YES	reject
DL CCTrCH Information		*0..<maxno ofCCTrC Hs>*		For DCH and DSCH	EACH	notify
>CCTrCH ID	M		9.2.3.2		–
>TFCS	M		9.2.1.63	For the DL.	–
>TFCI Coding	M		9.2.3.11		–
>Puncture Limit	M		9.2.1.46		–
>TDD TPC Downlink Step Size	M		9.2.3.10		–
>TPC CCTrCH List		*0..<maxno CCTrCHs >*		List of uplink CCTrCH which provide TPC	–
>>TPC CCTrCH ID	M		CCTrCH ID 9.2.3.2		–
DCH Information	O		DCH TDD Information 9.2.3.2A		YES	reject
DSCH Information	O		DSCH TDD Information 9.2.3.3a		YES	reject
USCH Information	O		9.2.3.15		YES	reject
RL Information		*1*			YES	reject
>RL ID	M		9.2.1.49		–

>C-ID	M		9.2.1.6		–	
>Frame Offset	M		9.2.1.30		–	
>Special Burst Scheduling	M		9.2.3.7D		–	
>Primary CCPCH RSCP	O		9.2.3.5		–	
>DL Time Slot ISCP Info	O		9.2.3.2D	Applicable to 3.84Mcps TDD and 7.68Mcps TDD only	–	
>DL Time Slot ISCP Info LCR	O		9.2.3.2F	Applicable to 1.28Mcps TDD only	YES	reject
>TSTD Support Indicator	O		9.2.3.13F	Applicable to 1.28Mcps TDD only	YES	ignore
>RL Specific DCH Information	O		9.2.1.49A		YES	ignore
>Delayed Activation	O		9.2.1.19Aa		YES	reject
>UL Synchronisation Parameters LCR		*0..1*		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	YES	reject
>>Uplink Synchronisation Step Size	M		9.2.3.13J		–	
>>Uplink Synchronisation Frequency	M		9.2.3.13I		–	
>Primary CCPCH RSCP Delta	O		9.2.3.5a		YES	ignore
Permanent NAS UE Identity	O		9.2.1.73		YES	ignore
HS-DSCH Information	O		HS-DSCH TDD Information 9.2.3.3aa		YES	reject
HS-PDSCH RL ID	C - InfoHSDSCH		RL ID 9.2.1.49		YES	reject
PDSCH-RL-ID	O		RL ID 9.2.1.49		YES	ignore
MBMS Bearer Service List		*0..<maxno ofMBMS>*			GLOBAL	notify

>TMGI	M		9.2.1.80		–	
E-DCH Information		0..1		3.84Mcps TDD only	YES	reject
>E-PUCH Information	M		9.2.3.36		–	
>E-TFCS Information TDD	M		9.2.3.37		–	
>E-DCH MAC-d Flows Information TDD	M		9.2.3.38		–	
>E-DCH TDD Information	M		9.2.3.40		–	
E-DCH Serving RL	O		9.2.1.49	TDD only	YES	reject
E-DCH Information 7.68Mcps		0..1		7.68Mcps TDD only	YES	reject
>E-PUCH Information	M		9.2.3.36		–	
>E-TFCS Information TDD	M		9.2.3.37		–	
>E-DCH MAC-d Flows Information TDD	M		9.2.3.38		–	
>E-DCH TDD Information 7.68Mcps	M		9.2.3.51		–	
E-DCH Information 1.28Mcps		0..1		1.28Mcps TDD only	YES	reject
>E-PUCH Information LCR	M		9.2.3.36a		–	
>E-TFCS Information TDD	M		9.2.3.37		–	
>E-DCH MAC-d Flows Information TDD	M		9.2.3.38		–	
>E-DCH TDD Information LCR	M		9.2.3.40a		–	
Extended SRNC-ID	O		Extended RNC-ID 9.2.1.50a	The *Extended SRNC-ID* IE shall be used if the RNC identity has a value larger than 4095.	YES	reject

Condition	Explanation
InfoHSDSCH	This IE shall be present if *HS-DSCH Information* IE is present.

Range bound	Explanation
maxnoofCCTrCHs	Maximum number of CCTrCH for one UE.
maxnoofMBMS	Maximum number of MBMS bearer services that a UE can join.

9.1.4 RADIO LINK SETUP RESPONSE

9.1.4.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
D-RNTI	O		9.2.1.24		YES	ignore
CN PS Domain Identifier	O		9.2.1.12		YES	ignore
CN CS Domain Identifier	O		9.2.1.11		YES	ignore
RL Information Response		*1..<maxno ofRLs>*			EACH	ignore
>RL ID	M		9.2.1.49		–	
>RL Set ID	M		9.2.2.35		–	
>URA Information	O		9.2.1.70B		–	
>SAI	M		9.2.1.52		–	
>Cell GAI	O		9.2.1.5A		–	
>UTRAN Access Point Position	O		9.2.1.70A		–	
>Received Total Wide Band Power	M		9.2.2.35A		–	
>Not Used	O		NULL		–	
>DL Code Information	M		FDD DL Code Information 9.2.2.14A		–	
>CHOICE *Diversity Indication*	M				–	
>>*Combining*					–	
>>>RL ID	M		9.2.1.49	Reference RL ID for the combining	–	
>>>DCH Information Response	O		9.2.1.16A		YES	ignore
>>>E-DCH FDD Information Response	O		9.2.2.4C		YES	ignore
>>*Non Combining or First RL*					–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>>DCH Information Response	M		9.2.1.16A		–	
>>>E-DCH FDD Information Response	O		9.2.2.4C		YES	ignore
>SSDT Support Indicator	M		9.2.2.43		–	
>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Closed Loop Timing Adjustment Mode	O		9.2.2.3A		–	
>Maximum Allowed UL Tx Power	M		9.2.1.35		–	
>Maximum DL TX Power	M		DL Power 9.2.1.21A		–	
>Minimum DL TX Power	M		DL Power 9.2.1.21A		–	
>Primary Scrambling Code	O		9.2.1.45		–	
>UL UARFCN	O		UARFCN 9.2.1.66	Corresponds to Nu in ref. [6]	–	
>DL UARFCN	O		UARFCN 9.2.1.66	Corresponds to Nd in ref. [6]	–	
>Primary CPICH Power	M		9.2.1.44		–	
>Not Used	O		NULL		–	
>Neighbouring UMTS Cell Information	O		9.2.1.41A		–	
>Neighbouring GSM Cell Information	O		9.2.1.41C		–	
>PC Preamble	M		9.2.2.27a		–	
>SRB Delay	M		9.2.2.39A		–	
>Cell GA Additional Shapes	O		9.2.1.5B		YES	ignore
>DL Power Balancing Activation Indicator	O		9.2.2.10B		YES	ignore
>HCS Prio	O		9.2.1.30N		YES	ignore
>Primary CPICH Usage For Channel Estimation	O		9.2.2.32A		YES	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>Secondary CPICH Information	O		9.2.2.38A		YES	ignore
>Active MBMS Bearer Service List		*0..<maxno ofActiveM BMS>*			GLOBAL	ignore
>>TMGI	M		9.2.1.80		–	
>>Transmission Mode	O		9.2.1.81		–	
>>Preferred Frequency Layer	O		UARFCN 9.2.1.66		–	
>E-DCH RL Set ID	O		RL Set ID 9.2.2.35		YES	ignore
>E-DCH FDD DL Control Channel Information	O		9.2.2.4D		YES	ignore
>Initial DL DPCH Timing Adjustment	O		DL DPCH Timing Adjustmen t 9.2.2.9A		YES	ignore
>F-DPCH Slot Format	O		9.2.2.85		YES	ignore
>Frame Offset	O		9.2.1.30		YES	ignore
>Chip Offset	O		9.2.2.1		YES	ignore
Uplink SIR Target	O		Uplink SIR 9.2.1.69		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore
HS-DSCH-RNTI	O		9.2.1.30P		YES	ignore
HS-DSCH Information Response	O		HS-DSCH FDD Informatio n Response 9.2.2.19b		YES	ignore
Continuous Packet Connectivity HS-SCCH less Information Response	O		9.2.2.75		YES	ignore
SixtyfourQAM DL Support Indicator	O		9.2.2.79		YES	ignore

Range bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE.
maxnoofActiveMBMS	Maximum number of MBMS bearer services that are active in

				parallel.		

9.1.4.2   TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
D-RNTI	O		9.2.1.24		YES	ignore
CN PS Domain Identifier	O		9.2.1.12		YES	ignore
CN CS Domain Identifier	O		9.2.1.11		YES	ignore
RL Information Response		*0..1*		Mandatory for 3.84Mcps TDD , not applicable to 1.28Mcps TDD or 7.68Mcps TDD	YES	ignore
>RL ID	M		9.2.1.49		–	
>URA Information	O		9.2.1.70B		–	
>SAI	M		9.2.1.52		–	
>Cell GAI	O		9.2.1.5A		–	
>UTRAN Access Point Position	O		9.2.1.70A		–	
>UL Time Slot ISCP Info	M		9.2.3.13D		–	
>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Maximum Allowed UL Tx Power	M		9.2.1.35		–	
>Maximum DL TX Power	M		DL Power 9.2.1.21A		–	
>Minimum DL TX Power	M		DL Power 9.2.1.21A		–	
>UARFCN	O		UARFCN 9.2.1.66	Corresponds to Nt in ref. [7]	–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>Cell Parameter ID	O		9.2.1.8		–	
>Sync Case	O		9.2.1.54		–	
>SCH Time Slot	C-Case2		9.2.1.51		–	
>SCTD Indicator	O		9.2.1.78		–	
>PCCPCH Power	M		9.2.1.43		–	
>Timing Advance Applied	M		9.2.3.12A		–	
>Alpha Value	M		9.2.3.a		–	
>UL PhysCH SF Variation	M		9.2.3.13B		–	
>Synchronisation Configuration	M		9.2.3.7E		–	
>Secondary CCPCH Info TDD	O		9.2.3.7B		–	
>UL CCTrCH Information		*0..<maxno ofCCTrC Hs>*		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
>>UL DPCH Information		*0..1*			YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
>>>UL Timeslot Information	M		9.2.3.13C		–	
>>Uplink SIR Target CCTrCH	O		Uplink SIR 9.2.1.69		YES	ignore
>DL CCTrCH Information		*0..<maxno ofCCTrC Hs>*		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
>>DL DPCH Information		*0..1*			YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
>>>DL Timeslot Information	M		9.2.3.2C		–	
>>CCTrCH Maximum DL	O		DL Power	Maximum allowed	YES	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
TX Power			9.2.1.21A	power on DPCH		
>>CCTrCH Minimum DL TX Power	O		DL Power 9.2.1.21A	Minimum allowed power on DPCH	YES	ignore
>DCH Information Response	O		9.2.1.16A		YES	ignore
>DSCH Information Response		*0 .. <maxnoof DSCHs>*			GLOBAL	ignore
>>DSCH ID	M		9.2.3.3ae		–	
>>DSCH Flow Control Information	M		9.2.3.3ag		–	
>>Binding ID	O		9.2.1.3		–	
>>Transport Layer Address	O		9.2.1.62		–	
>>Transport Format Management	M		9.2.3.13		–	
>USCH Information Response		*0 .. <maxnoof USCHs>*			GLOBAL	ignore
>>USCH ID	M		9.2.3.14		–	
>>Binding ID	O		9.2.1.3		–	
>>Transport Layer Address	O		9.2.1.62		–	
>>Transport Format Management	M		9.2.3.13		–	
>Neighbouring UMTS Cell Information	O		9.2.1.41A		–	
>Neighbouring GSM Cell Information	O		9.2.1.41C		–	
>Cell GA Additional Shapes	O		9.2.1.5B		YES	ignore
>HCS Prio	O		9.2.1.30N		YES	ignore
>Time Slot for SCH	C-Case1		Time Slot 9.2.1.56		YES	ignore
Uplink SIR Target	M		Uplink SIR 9.2.1.69		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore

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IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
RL Information Response LCR		*0..1*		Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD or 7.68Mcps TDD	YES	ignore
>RL ID	M		9.2.1.49		–	
>URA Information	M		9.2.1.70B		–	
>SAI	M		9.2.1.52		–	
>Cell GAI	O		9.2.1.5A		–	
>UTRAN Access Point Position	O		9.2.1.70A		–	
>UL Time Slot ISCP Info LCR	M		9.2.3.13H		–	
>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Maximum Allowed UL Tx Power	M		9.2.1.35		–	
>Maximum DL TX Power	M		DL Power 9.2.1.21A		–	
>Minimum DL TX Power	M		DL Power 9.2.1.21A		–	
>UARFCN	O		UARFCN 9.2.1.66	Corresponds to Nt in ref. [7]	–	
>Cell Parameter ID	O		9.2.1.8		–	
>SCTD Indicator	O		9.2.1.78		–	
>PCCPCH Power	M		9.2.1.43		–	
>Alpha Value	M		9.2.3.a		–	
>UL PhysCH SF Variation	M		9.2.3.13B		–	
>Synchronisation Configuration	M		9.2.3.7E		–	
>Secondary CCPCH Info TDD LCR	O		9.2.3.7F		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>UL CCTrCH Information LCR		*0..<maxno ofCCTrC HsLCR>*		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
>>UL DPCH Information LCR		*0..1*			YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
>>>UL Timeslot Information LCR	M		9.2.3.13G		–	
>>Uplink SIR Target CCTrCH	O		Uplink SIR 9.2.1.69		YES	ignore
>DL CCTrCH Information LCR		*0..<maxno ofCCTrC HsLCR>*		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
>>DL DPCH Information LCR		*0..1*			YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
>>>DL Timeslot Information LCR	M		9.2.3.2E		–	
>>>TSTD Indicator	M		9.2.3.13E		–	
>DCH Information Response	O		9.2.1.16A		YES	ignore
>DSCH Information Response LCR		*0 .. <maxnoof DSCHsLC R>*			GLOBAL	ignore
>>DSCH ID	M		9.2.3.3ae		–	
>>DSCH Flow Control Information	M		9.2.3.3ag		–	
>>Binding ID	O		9.2.1.3		–	
>>Transport Layer Address	O		9.2.1.62		–	
>>Transport Format Management	M		9.2.3.13		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>USCH Information Response LCR		*0 .. <maxnoof USCHsLCR>*			GLOBAL	ignore
>>USCH ID	M		9.2.3.14		–	
>>Binding ID	O		9.2.1.3		–	
>>Transport Layer Address	O		9.2.1.62		–	
>>Transport Format Management	M		9.2.3.13		–	
>Neighbouring UMTS Cell Information	O		9.2.1.41A		–	
>Neighbouring GSM Cell Information	O		9.2.1.41C		–	
>HCS Prio	O		9.2.1.30N		YES	ignore
>Cell GA Additional Shapes	O		9.2.1.5B		YES	ignore
>Uplink Timing Advance Control LCR	M		9.2.3.13K		YES	ignore
>PowerControl GAP	O		INTEGER (1..255)	Unit: umber of subframes Applicable to 1.28Mcps TDD only	YES	ignore
HS-DSCH-RNTI	O		9.2.1.30P		YES	ignore
HS-DSCH Information Response	O		HS-DSCH TDD Informatio n Response 9.2.3.3ab		YES	ignore
DSCH-RNTI	O		9.2.3.3ah		YES	ignore
Active MBMS Bearer Service List		*0..<maxno ofActiveM BMS>*			GLOBAL	ignore
>TMGI	M		9.2.1.80		–	
>Transmission Mode	O		9.2.1.81		–	
>Preferred Frequency Layer	O		UARFCN 9.2.1.66		–	
RL Information Response 7.68Mcps		*0..1*		Mandatory for 7.68Mcps TDD , not	YES	ignore

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IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
				applicable to 1.28Mcps TDD or 3.84Mcps TDD		
>RL ID	M		9.2.1.49		–	
>URA Information	O		9.2.1.70B		–	
>SAI	M		9.2.1.52		–	
>Cell GAI	O		9.2.1.5A		–	
>UTRAN Access Point Position	O		9.2.1.70A		–	
>UL Time Slot ISCP Info	M		9.2.3.13D		–	
>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Maximum Allowed UL Tx Power	M		9.2.1.35		–	
>Maximum DL TX Power	M		DL Power 9.2.1.21A		–	
>Minimum DL TX Power	M		DL Power 9.2.1.21A		–	
>UARFCN	O		UARFCN 9.2.1.66	Corresponds to Nt in ref. [7]	–	
>Cell Parameter ID	O		9.2.1.8		–	
>Sync Case	O		9.2.1.54		–	
>SCH Time Slot	C-Case2		9.2.1.51		–	
>SCTD Indicator	O		9.2.1.78		–	
>PCCPCH Power	M		9.2.1.43		–	
>Timing Advance Applied	M		9.2.3.12A		–	
>Alpha Value	M		9.2.3.a		–	
>UL PhysCH SF Variation	M		9.2.3.13B		–	
>Synchronisation Configuration	M		9.2.3.7E		–	
>Secondary CCPCH Info 7.68Mcps TDD	O		9.2.3.22		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>UL CCTrCH Information 7.68 Mcps		*0..<maxno ofCCTrC Hs>*		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
>>UL DPCH Information		*0..1*			YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
>>>UL Timeslot Information 7.68Mcps	M		9.2.3.26		–	
>>Uplink SIR Target CCTrCH	O		Uplink SIR 9.2.1.69		–	
>DL CCTrCH Information 7.68 Mcps		*0..<maxno ofCCTrC Hs>*		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
>>DL DPCH Information		*0..1*			YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
>>>DL Timeslot Information 7.68Mcps	M		9.2.3.28		–	
>>CCTrCH Maximum DL TX Power	O		DL Power 9.2.1.21A	Maximum allowed power on DPCH	–	
>>CCTrCH Minimum DL TX Power	O		DL Power 9.2.1.21A	Minimum allowed power on DPCH	–	
>DCH Information Response	O		9.2.1.16A		YES	ignore
>DSCH Information Response 7.68 Mcps		*0 .. <maxnoof DSCHs>*			GLOBAL	ignore
>>DSCH ID	M		9.2.3.3ae		–	
>>DSCH Flow Control Information	M		9.2.3.3ag		–	
>>Binding ID	O		9.2.1.3		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>Transport Layer Address	O		9.2.1.62		–	
>>Transport Format Management	M		9.2.3.13		–	
>USCH Information Response 7.68 Mcps		*0 .. <maxnoof USCHs>*			GLOBAL	ignore
>>USCH ID	M		9.2.3.14		–	
>>Binding ID	O		9.2.1.3		–	
>>Transport Layer Address	O		9.2.1.62		–	
>>Transport Format Management	M		9.2.3.13		–	
>Neighbouring UMTS Cell Information	O		9.2.1.41A		–	
>Neighbouring GSM Cell Information	O		9.2.1.41C		–	
>Cell GA Additional Shapes	O		9.2.1.5B		–	
>HCS Prio	O		9.2.1.30N		–	
>Time Slot for SCH	C-Case1		Time Slot 9.2.1.56		–	
E-DCH Information Response	O		E-DCH TDD Information Response 9.2.3.41	3.84Mcps TDD only	YES	ignore
E-DCH Information Response 7.68Mcps	O		E-DCH TDD Information Response 7.68Mcps 9.2.3.52	7.68Mcps TDD only	YES	ignore
E-DCH Information Response 1.28Mcps	O		E-DCH TDD Information Response 1.28Mcps 9.2.3.41a	1.28Mcps TDD only	YES	ignore

Condition	Explanation
Case2	The IE shall be present if *Sync Case* IE is equal to "Case2".
Case1	This IE shall be present if *Sync Case* IE is equal to "Case1".

Range bound	Explanation
maxnoofDSCHs	Maximum number of DSCHs for one UE for 3.84Mcps TDD or 7.68Mcps TDD.
maxnoofUSCHs	Maximum number of USCHs for one UE for 3.84Mcps TDD or 7.68Mcps TDD.
maxnoofCCTrCHs	Maximum number of CCTrCH for one UE for 3.84Mcps TDD or 7.68Mcps TDD.
maxnoofDSCHsLCR	Maximum number of DSCHs for one UE for 1.28Mcps TDD.
maxnoofUSCHsLCR	Maximum number of USCHs for one UE for 1.28Mcps TDD.
maxnoofCCTrCHsLCR	Maximum number of CCTrCH for one UE for 1.28Mcps TDD.
maxnoofActiveMBMS	Maximum number of MBMS bearer services that are active in parallel.

9.1.5   RADIO LINK SETUP FAILURE

9.1.5.1   FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
D-RNTI	O		9.2.1.24		YES	ignore
CN PS Domain Identifier	O		9.2.1.12		YES	ignore
CN CS Domain Identifier	O		9.2.1.11		YES	ignore
CHOICE *Cause Level*	M				YES	ignore
>*General*					–	
>>Cause	M		9.2.1.5		–	
>*RL Specific*					–	
>>Unsuccessful RL Information Response		*1..<maxno ofRLs>*			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>Cause	M		9.2.1.5		–	
>>>Max UE DTX Cycle	C-DTX-CycleNotAvailable		9.2.2.87		YES	ignore
>>Successful RL Information Response		*0..<maxno ofRLs-1>*			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>RL Set ID	M		9.2.2.35		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>>URA Information	O		9.2.1.70B		–	
>>>SAI	M		9.2.1.52		–	
>>>Cell GAI	O		9.2.1.5A		–	
>>>UTRAN Access Point Position	O		9.2.1.70A		–	
>>>Received Total Wide Band Power	M		9.2.2.35A		–	
>>>Not Used	O		NULL		–	
>>>DL Code Information	M		FDD DL Code Information 9.2.2.14A		–	
>>>CHOICE *Diversity Indication*	M				–	
>>>>*Combining*					–	
>>>>>RL ID	M		9.2.1.49	Reference RL ID for the combining	–	
>>>>>DCH Information Response	O		9.2.1.16A		YES	ignore
>>>>>E-DCH FDD Information Response	O		9.2.2.4C		YES	ignore
>>>>*Non Combining or First RL*					–	
>>>>>DCH Information Response	M		9.2.1.16A		–	
>>>>>E-DCH FDD Information Response	O		9.2.2.4C		YES	ignore
>>>SSDT Support Indicator	M		9.2.2.43		–	
>>>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>>>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>>>Closed Loop Timing	O		9.2.2.3A		–	

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IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Adjustment Mode						
>>>Maximum Allowed UL Tx Power	M		9.2.1.35		–	
>>>Maximum DL TX Power	M		DL Power 9.2.1.21A		–	
>>>Minimum DL TX Power	M		DL Power 9.2.1.21A		–	
>>>Primary CPICH Power	M		9.2.1.44		–	
>>>Primary Scrambling Code	O		9.2.1.45		–	
>>>UL UARFCN	O		UARFCN 9.2.1.66	Corresponds to Nu in ref. [6]	–	
>>>DL UARFCN	O		UARFCN 9.2.1.66	Corresponds to Nd in ref. [6]	–	
>>>Not Used	O		NULL		–	
>>>Neighbouring UMTS Cell Information	O		9.2.1.41A		–	
>>>Neighbouring GSM Cell Information	O		9.2.1.41C		–	
>>>PC Preamble	M		9.2.2.27a		–	
>>>SRB Delay	M		9.2.2.39A		–	
>>>Cell GA Additional Shapes	O		9.2.1.5B		YES	ignore
>>>DL Power Balancing Activation Indicator	O		9.2.2.10B		YES	ignore
>>>HCS Prio	O		9.2.1.30N		YES	ignore
>>>Primary CPICH Usage For Channel Estimation	O		9.2.2.32A		YES	ignore
>>>Secondary CPICH Information	O		9.2.2.38A		YES	ignore
>>>Active MBMS Bearer Service List		*0..<maxno ofActiveM BMS>*			GLOBAL	ignore
>>>>TMGI	M		9.2.1.80		–	
>>>>Transmission Mode	O		9.2.1.81		–	

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IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>>>Preferred Frequency Layer	O		UARFCN 9.2.1.66		–	
>>>E-DCH RL Set ID	O		RL Set ID 9.2.2.35		YES	ignore
>>>E-DCH FDD DL Control Channel Information	O		9.2.2.4D		YES	ignore
>>>Initial DL DPCH Timing Adjustment	O		DL DPCH Timing Adjustment 9.2.2.9A		YES	ignore
>>>F-DPCH Slot Format	O		9.2.2.85		YES	ignore
>>HS-DSCH-RNTI	O		9.2.1.30P		YES	ignore
>>HS-DSCH Information Response	O		HS-DSCH FDD Information Response 9.2.2.19b		YES	ignore
>>Continuous Packet Connectivity HS-SCCH less Information Response	O		9.2.2.75		YES	ignore
>>SixtyfourQAM DL Support Indicator	O		9.2.2.79		YES	ignore
Uplink SIR Target	O		Uplink SIR 9.2.1.69		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore

Condition	Explanation
DTX-CycleNotAvailable	The IE shall be present if the *Cause* IE is set to Continuous Packet Connectivity UE DTX Cycle not Available ".

Range bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE.
maxnoofActiveMBMS	Maximum number of MBMS bearer services that are active in parallel.

9.1.5.2   TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
CHOICE *Cause Level*	M				YES	ignore
>*General*					–	
>>Cause	M		9.2.1.5		–	
>*RL Specific*					–	
>>Unsuccessful RL Information Response		*1*			YES	ignore
>>>RL ID	M		9.2.1.49		–	
>>>Cause	M		9.2.1.5		–	
Criticality Diagnostics	O		9.2.1.13		YES	ignore

9.1.6   RADIO LINK ADDITION REQUEST

9.1.6.1   FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
Uplink SIR Target	M		Uplink SIR 9.2.1.69		YES	reject
RL Information		*1..<max noofRLs-1>*			EACH	notify
>RL ID	M		9.2.1.49		–	
>C-ID	M		9.2.1.6		–	
>Frame Offset	M		9.2.1.30		–	
>Chip Offset	M		9.2.2.1		–	
>Diversity Control Field	M		9.2.1.20		–	
>Primary CPICH Ec/No	O		9.2.2.32		–	
>Not Used	O		NULL		–	
>Transmit Diversity Indicator	O		9.2.2.48		–	

>DL Reference Power	O		DL Power 9.2.1.21A	Power on DPCH or on F-DPCH	YES	ignore
>Enhanced Primary CPICH Ec/No	O		9.2.2.13I		YES	ignore
>RL Specific DCH Information	O		9.2.1.49A		YES	ignore
>Delayed Activation	O		9.2.1.19Aa		YES	reject
>RL specific E-DCH Information	O		9.2.2.35a		YES	reject
>E-DCH RL Indication	O		9.2.2.4E		YES	reject
>Synchronisation Indicator	O		9.2.2.45A		YES	ignore
Active Pattern Sequence Information	O		9.2.2A	Either all the already active Transmissio n Gap Sequence(s) are addressed (Transmissio n Gap Pattern sequence shall overlap with the existing one) or none of the transmission gap sequences is activated.	YES	reject
DPC Mode	O		9.2.2.12A		YES	reject
Permanent NAS UE Identity	O		9.2.1.73		YES	ignore
Serving E-DCH RL	O		9.2.2.38C		YES	reject
Initial DL DPCH Timing Adjustment Allowed	O		9.2.2.21b		YES	ignore
HS-DSCH Serving Cell Change Information	O		9.2.2.19f		YES	reject
Serving Cell Change CFN	O		CFN 9.2.1.9		YES	reject
E-DPCH Information		*0..1*			YES	reject
>Maximum Set of E-DPDCHs	M		9.2.2.24e		–	
>Puncture Limit	M		9.2.1.46		–	

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>E-TFCS Information	M		9.2.2.4G		–	
>E-TTI	M		9.2.2.4J		–	
>E-DPCCH Power Offset	M		9.2.2.4K		–	
>E-RGCH 2-Index-Step Threshold	M		9.2.2.64		–	
>E-RGCH 3-Index-Step Threshold	M		9.2.2.65		–	
>HARQ Info for E-DCH	M		9.2.2.66		–	
>HS-DSCH Configured Indicator	M		9.2.2.19C		YES	reject
E-DCH FDD Information	C-EDCHInfo		9.2.2.4B		YES	reject

Condition	Explanation
EDCHInfo	This IE shall be present if *E-DPCH Information* IE is present.

Range bound	Explanation
maxnoofRLs	Maximum number of radio links for one UE.

9.1.6.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
RL Information		*1*			YES	reject
>RL ID	M		9.2.1.49		–	
>C-ID	M		9.2.1.6		–	
>Frame Offset	M		9.2.1.30		–	
>Diversity Control Field	M		9.2.1.20		–	
>Primary CCPCH RSCP	O		9.2.3.5		–	
>DL Time Slot ISCP Info	O		9.2.3.2D	Applicable to 3.84Mcps TDD and 7.68Mcps TDD only	–	
>DL Time Slot ISCP Info LCR	O		9.2.3.2F	Applicable to 1.28Mcps TDD only	YES	reject
>RL Specific DCH Information	O		9.2.1.49A		YES	ignore

>Delayed Activation	O		9.2.1.19Aa		YES	reject
>UL Synchronisation Parameters LCR		*0..1*		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	YES	reject
>>Uplink Synchronisation Step Size	M		9.2.3.13J		–	
>>Uplink Synchronisation Frequency	M		9.2.3.13I		–	
> Primary CCPCH RSCP Delta	O		9.2.3.5a		YES	ignore
Permanent NAS UE Identity	O		9.2.1.73		YES	ignore
UL CCTrCH Information		*0..< maxnoofCCTrCHs >*			EACH	notify
>CCTrCH ID	M		9.2.3.2		–	
>TDD TPC Uplink Step Size	O		9.2.3.10a	Applicable to 1.28Mcps TDD only	–	
DL CCTrCH Information		*0..< maxnoofCCTrCHs >*			EACH	notify
>CCTrCH ID	M		9.2.3.2		–	
>TDD TPC Downlink Step Size	O		9.2.3.10		–	
HS-DSCH Information	O		HS-DSCH TDD Information 9.2.3.3aa		YES	reject
HS-PDSCH RL ID	O		RL ID 9.2.1.49		YES	reject
E-DCH Information		0..1		3.84Mcps TDD only	YES	reject
>E-PUCH Information	M		9.2.3.36		–	
>E-TFCS Information TDD	M		9.2.3.37		–	
>E-DCH MAC-d Flows Information TDD	M		9.2.3.38		–	

>E-DCH TDD Information	M		9.2.3.40		–	
E-DCH Serving RL	O		9.2.1.49	3.84Mcps TDD only	YES	reject
E-DCH Information 7.68Mcps		0..1		7.68Mcps TDD only	YES	reject
>E-PUCH Information	M		9.2.3.36		–	
>E-TFCS Information TDD	M		9.2.3.37		–	
>E-DCH MAC-d Flows Information TDD	M		9.2.3.38		–	
>E-DCH TDD Information 7.68Mcps	M		9.2.3.51		–	
E-DCH Information 1.28Mcps		0..1		1.28Mcps TDD only	YES	reject
>E-PUCH Information LCR	M		9.2.3.36a		–	
>E-TFCS Information TDD	M		9.2.3.37		–	
>E-DCH MAC-d Flows Information TDD	M		9.2.3.38		–	
>E-DCH TDD Information LCR	M		9.2.3.40a		–	

Range bound	Explanation
maxnoofCCTrCHs	Maximum number of CCTrCH for one UE.

9.1.7 RADIO LINK ADDITION RESPONSE

9.1.7.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
RL Information Response		*1..<maxnoof RLs-1>*			EACH	ignore
>RL ID	M		9.2.1.49		–	
>RL Set ID	M		9.2.2.35		–	
>URA Information	O		9.2.1.70B		–	
>SAI	M		9.2.1.52		–	
>Cell GAI	O		9.2.1.5A		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>UTRAN Access Point Position	O		9.2.1.70A		–	
>Received Total Wide Band Power	M		9.2.2.35A		–	
>Not Used	O		NULL		–	
>DL Code Information	M		FDD DL Code Information 9.2.2.14A		YES	ignore
>CHOICE *Diversity Indication*	M				–	
>>Combining					–	
>>>RL ID	M		9.2.1.49	Reference RL ID	–	
>>>DCH Information Response	O		9.2.1.16A		YES	ignore
>>>E-DCH FDD Information Response	O		9.2.2.4C		YES	ignore
>>Non Combining					–	
>>>DCH Information Response	M		9.2.1.16A		–	
>>>E-DCH FDD Information Response	O		9.2.2.4C		YES	ignore
>SSDT Support Indicator	M		9.2.2.43		–	
>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Closed Loop Timing Adjustment Mode	O		9.2.2.3A		–	
>Maximum Allowed UL Tx Power	M		9.2.1.35		–	
>Maximum DL TX Power	M		DL Power 9.2.1.21A		–	
>Minimum DL TX Power	M		DL Power 9.2.1.21A		–	
>Neighbouring UMTS	O		9.2.1.41A		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Cell Information						
>Neighbouring GSM Cell Information	O		9.2.1.41C		–	
>PC Preamble	M		9.2.2.27a		–	
>SRB Delay	M		9.2.2.39A		–	
>Primary CPICH Power	M		9.2.1.44		–	
>Cell GA Additional Shapes	O		9.2.1.5B		YES	ignore
>DL Power Balancing Activation Indicator	O		9.2.2.10B		YES	ignore
>HCS Prio	O		9.2.1.30N		YES	ignore
>Active MBMS Bearer Service List		*0..<maxnoof ActiveMBMS>*			GLOBAL	ignore
>>TMGI	M		9.2.1.80		–	
>>Transmission Mode	O		9.2.1.81		–	
>>Preferred Frequency Layer	O		UARFCN 9.2.1.66		–	
>E-DCH RL Set ID	O		RL Set ID 9.2.2.35		YES	ignore
>E-DCH FDD DL Control Channel Information	O		9.2.2.4D		YES	ignore
>Initial DL DPCH Timing Adjustment	O		DL DPCH Timing Adjustment 9.2.2.9.A		YES	ignore
>F-DPCH Slot Format	O		9.2.2.85		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore
HS-DSCH Serving Cell Change Information Response	O		9.2.2.19g		YES	ignore
E-DCH Serving Cell Change Information Response	O		9.2.2.19h		YES	ignore
MAC-hs Reset Indicator	O		9.2.1.34B		YES	ignore

Range bound	Explanation
maxnoofRLs	Maximum number of radio links for one UE.

maxnoofActiveMBMS		Maximum number of MBMS bearer services that are active in parallel.

9.1.7.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
RL Information Response		*0..1*		Mandatory for 3.84Mcps TDD, not applicable to 1.28Mcps TDD or 7.68Mcps TDD	YES	ignore
>RL ID	M		9.2.1.49		–	
>URA Information	O		9.2.1.70B		–	
>SAI	M		9.2.1.52		–	
>Cell GAI	O		9.2.1.5A		–	
>UTRAN Access Point Position	O		9.2.1.70A		–	
>UL Time Slot ISCP Info	M		9.2.3.13D		–	
>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Maximum Allowed UL Tx Power	M		9.2.1.35		–	
>Maximum DL TX Power	M		DL Power 9.2.1.21A		–	
>Minimum DL TX Power	M		DL Power 9.2.1.21A		–	
>PCCPCH Power	M		9.2.1.43		–	
>Timing Advance Applied	M		9.2.3.12A		–	
>Alpha Value	M		9.2.3.a		–	
>UL PhysCH SF Variation	M		9.2.3.13B		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>Synchronisation Configuration	M		9.2.3.7E		–	
>Secondary CCPCH Info TDD	O		9.2.3.7B		–	
>UL CCTrCH Information		*0..<maxnoof CCTrCHs>*		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
>>UL DPCH Information		*0..1*			YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
>>>UL Timeslot Information	M		9.2.3.13C		–	
>DL CCTrCH Information		*0..<maxnoof CCTrCHs>*		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
>>DL DPCH Information		*0..1*			YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
>>>DL Timeslot Information	M		9.2.3.2C		–	
>>CCTrCH Maximum DL TX Power	O		DL Power 9.2.1.21A	Maximum allowed power on DPCH	YES	ignore
>>CCTrCH Minimum DL TX Power	O		DL Power 9.2.1.21A	Minimum allowed power on DPCH	YES	ignore
>DCH Information		0..1			–	
>>CHOICE *Diversity Indication*	M				–	
>>>Combining					–	
>>>>RL ID	M		9.2.1.49	Reference RL	–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>>>DCH Information Response	O		9.2.1.16A		YES	ignore
>>>*Non Combining*					–	
>>>>DCH Information Response	M		9.2.1.16A		–	
>DSCH Information Response		*0 .. <maxnoof DSCHs>*			GLOBAL	ignore
>>DSCH ID	M		9.2.3.3ae		–	
>>Transport Format Management	M		9.2.3.13		–	
>>DSCH Flow Control Information	M		9.2.3.3ag		–	
>>CHOICE *Diversity Indication*	O				–	
>>>*Non Combining*					–	
>>>>Binding ID	O		9.2.1.3		–	
>>>>Transport Layer Address	O		9.2.1.62		–	
>USCH Information Response		*0 .. <maxnoof USCHs>*			GLOBAL	ignore
>>USCH ID	M		9.2.3.14		–	
>>Transport Format Management	M		9.2.3.13		–	
>>CHOICE *Diversity Indication*	O				–	
>>>*Non Combining*					–	
>>>>Binding ID	O		9.2.1.3		–	
>>>>Transport Layer Address	O		9.2.1.62		–	
>Neighbouring UMTS Cell Information	O		9.2.1.41A		–	
>Neighbouring GSM Cell Information	O		9.2.1.41C		–	
>Cell GA Additional Shapes	O		9.2.1.5B		YES	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>HCS Prio	O		9.2.1.30N		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore
RL Information Response LCR		*0..1*		Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD or 7.68Mcps TDD	YES	ignore
>RL ID	M		9.2.1.49		–	
>URA Information	M		9.2.1.70B		–	
>SAI	M		9.2.1.52		–	
>Cell GAI	O		9.2.1.5A		–	
>UTRAN Access Point Position	O		9.2.1.70A		–	
>UL Time Slot ISCP Info LCR	M		9.2.3.13H		–	
>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>PCCPCH Power	M		9.2.1.43		–	
>Maximum Allowed UL Tx Power	M		9.2.1.35		–	
>Maximum DL TX Power	M		DL Power 9.2.1.21A		–	
>Minimum DL TX Power	M		DL Power 9.2.1.21A		–	
>Alpha Value	M		9.2.3.a		–	
>UL PhysCH SF Variation	M		9.2.3.13B		–	
>Synchronisation Configuration	M		9.2.3.7E		–	
>Secondary CCPCH Info TDD LCR	O		9.2.3.7F		–	
>UL CCTrCH Information LCR		*0..<maxnoof CCTrCHsL*		For DCH	GLOBAL	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
		CR>				
>>CCTrCH ID	M		9.2.3.2		–	
>>UL DPCH Information LCR		*0..1*			YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
>>>UL Timeslot Information LCR	M		9.2.3.13G		–	
>DL CCTrCH Information LCR		*0..<maxnoof CCTrCHsLCR>*		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
>>DL DPCH Information LCR		*0..1*			YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
>>>DL Timeslot Information LCR	M		9.2.3.2E		–	
>>>TSTD Indicator	M		9.2.3.13E		–	
>DCH Information Response	M		9.2.1.16A		–	
>DSCH Information Response LCR		*0 ..<maxnoof DSCHsLCR>*			GLOBAL	ignore
>>DSCH ID	M		9.2.3.3ae		–	
>>DSCH Flow Control Information	M		9.2.3.3ag		–	
>>Binding ID	O		9.2.1.3		–	
>>Transport Layer Address	O		9.2.1.62		–	
>>Transport Format Management	M		9.2.3.13		–	
>USCH Information Response LCR		*0 ..<maxnoof USCHsLCR>*			GLOBAL	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>USCH ID	M		9.2.3.14		–	
>>Transport Format Management	M		9.2.3.13		–	
>>CHOICE *Diversity Indication*	O				–	
>>>*Non Combining*					–	
>>>>Binding ID	O		9.2.1.3		–	
>>>>Transport Layer Address	O		9.2.1.62		–	
>Neighbouring UMTS Cell Information	O		9.2.1.41A		–	
>Neighbouring GSM Cell Information	O		9.2.1.41C		–	
>Cell GA Additional Shapes	O		9.2.1.5B		YES	ignore
>HCS Prio	O		9.2.1.30N		YES	ignore
>Uplink Timing Advance Control LCR	M		9.2.3.13K		YES	ignore
>UARFCN	O		9.2.1.66	Applicable to 1.28Mcps TDD only. Mandatory for 1.28Mcps TDD when using multiple frequencies. Corresponds to Nt 3GPP TS 25.105.	YES	ignore
>PowerControl GAP	O		INTEGER (1..255)	Unit: umber of subframes Applicable to 1.28Mcps TDD only	YES	ignore
RL Information Response 7.68Mcps		*0..1*		Mandatory for 7.68Mcps TDD, not applicable to 1.28Mcps TDD or 3.84Mcps	YES	ignore

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IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
				TDD		
>RL ID	M		9.2.1.49		–	
>URA Information	O		9.2.1.70B		–	
>SAI	M		9.2.1.52		–	
>Cell GAI	O		9.2.1.5A		–	
>UTRAN Access Point Position	O		9.2.1.70A		–	
>UL Time Slot ISCP Info	M		9.2.3.13D		–	
>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Maximum Allowed UL Tx Power	M		9.2.1.35		–	
>Maximum DL TX Power	M		DL Power 9.2.1.21A		–	
>Minimum DL TX Power	M		DL Power 9.2.1.21A		–	
>PCCPCH Power	M		9.2.1.43		–	
>Timing Advance Applied	M		9.2.3.12A		–	
>Alpha Value	M		9.2.3.a		–	
>UL PhysCH SF Variation	M		9.2.3.13B		–	
>Synchronisation Configuration	M		9.2.3.7E		–	
>Secondary CCPCH Info 7.68Mcps TDD	O		9.2.3.22		–	
>UL CCTrCH Information 7.68 Mcps		*0..<maxnoof CCTrCHs>*		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
>>UL DPCH Information 7.68 Mcps		*0..1*			YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>>UL Timeslot Information 7.68Mcps	M		9.2.3.26		–	
>DL CCTrCH Information 7.68 Mcps		*0..<maxnoof CCTrCHs>*		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
>>DL DPCH Information 7.68 Mcps		*0..1*			YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
>>>DL Timeslot Information 7.68Mcps	M		9.2.3.28		–	
>>CCTrCH Maximum DL TX Power	O		DL Power 9.2.1.21A	Maximum allowed power on DPCH	–	
>>CCTrCH Minimum DL TX Power	O		DL Power 9.2.1.21A	Minimum allowed power on DPCH	–	
>DCH Information		0..1			–	
>>CHOICE *Diversity Indication*	M				–	
>>>Combining					–	
>>>>RL ID	M		9.2.1.49	Reference RL	–	
>>>>DCH Information Response	O		9.2.1.16A		YES	ignore
>>>Non Combining					–	
>>>>DCH Information Response	M		9.2.1.16A		–	
>DSCH Information Response 7.68 Mcps		*0 .. <maxnoof DSCHs>*			GLOBAL	ignore
>>DSCH ID	M		9.2.3.3ae		–	
>>Transport Format Management	M		9.2.3.13		–	
>>DSCH Flow Control	M		9.2.3.3ag		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Information						
>>CHOICE *Diversity Indication*	O				–	
>>>*Non Combining*					–	
>>>>Binding ID	O		9.2.1.3		–	
>>>>Transport Layer Address	O		9.2.1.62		–	
>USCH Information Response 7.68 Mcps		*0 .. <maxnoof USCHs>*			GLOBAL	ignore
>>USCH ID	M		9.2.3.14		–	
>>Transport Format Management	M		9.2.3.13		–	
>>CHOICE *Diversity Indication*	O				–	
>>>*Non Combining*					–	
>>>>Binding ID	O		9.2.1.3		–	
>>>>Transport Layer Address	O		9.2.1.62		–	
>Neighbouring UMTS Cell Information	O		9.2.1.41A		–	
>Neighbouring GSM Cell Information	O		9.2.1.41C		–	
>Cell GA Additional Shapes	O		9.2.1.5B		–	
>HCS Prio	O		9.2.1.30N		–	
Active MBMS Bearer Service List		*0..<maxnoo fActiveMBM S>*			GLOBAL	ignore
>TMGI	M		9.2.1.80		–	
>Transmission Mode	O		9.2.1.81		–	
>Preferred Frequency Layer	O		UARFCN 9.2.1.66		–	
HS-DSCH Information Response	O		HS-DSCH TDD Information Response 9.2.3.3ab		YES	ignore

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IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-DSCH-RNTI	O		9.2.1.30P		YES	ignore
E-DCH Information Response	O		E-DCH TDD Information Response 9.2.3.41	3.84Mcps TDD only	YES	ignore
E-DCH Information Response 7.68Mcps	O		E-DCH TDD Information Response 7.68Mcps 9.2.3.52	7.68Mcps TDD only	YES	ignore
E-DCH Information Response 1.28Mcps	O		E-DCH TDD Information Response 1.28Mcps 9.2.3.41a	1.28Mcps TDD only	YES	ignore

Range Bound	Explanation
maxnoofDSCHs	Maximum number of DSCHs for one UE for 3.84Mcps TDD.
maxnoofUSCHs	Maximum number of USCHs for one UE for 3.84Mcps TDD.
maxnoofCCTrCHs	Maximum number of CCTrCHs for one UE for 3.84Mcps TDD.
maxnoofDSCHsLCR	Maximum number of DSCHs for one UE for 1.28Mcps TDD.
maxnoofUSCHsLCR	Maximum number of USCHs for one UE for 1.28Mcps TDD.
maxnoofCCTrCHsLCR	Maximum number of CCTrCH for one UE for 1.28Mcps TDD.
maxnoofActiveMBMS	Maximum number of MBMS bearer services that are active in parallel.

9.1.8   RADIO LINK ADDITION FAILURE

9.1.8.1   FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
CHOICE *Cause Level*	M				YES	ignore
>*General*					–	
>>Cause	M		9.2.1.5		–	
>*RL Specific*					–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>Unsuccessful RL Information Response		*1..<maxnoof RLs-1>*			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>Cause	M		9.2.1.5		–	
>>Successful RL Information Response		*0..<maxnoof RLs-2>*			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>RL Set ID	M		9.2.2.35		–	
>>>URA Information	O		9.2.1.70B		–	
>>>SAI	M		9.2.1.52		–	
>>>Cell GAI	O		9.2.1.5A		–	
>>>UTRAN Access Point Position	O		9.2.1.70A		–	
>>>Received Total Wide Band Power	M		9.2.2.35A		–	
>>>Not Used	O		NULL		–	
>>>DL Code Information	M		FDD DL Code Information 9.2.2.14A		YES	ignore
>>>CHOICE *Diversity Indication*	M				–	
>>>>*Combining*					–	
>>>>>RL ID	M		9.2.1.49	Reference RL ID	–	
>>>>>DCH Information Response	O		9.2.1.16A		YES	ignore
>>>>>E-DCH FDD Information Response	O		9.2.2.4C		YES	ignore
>>>>*Non Combining*					–	
>>>>>DCH Information Response	M		9.2.1.16A		–	
>>>>>E-DCH FDD Information Response	O		9.2.2.4C		YES	ignore

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IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>>SSDT Support Indicator	M		9.2.2.43		–	
>>>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>>>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>>>Closed Loop Timing Adjustment Mode	O		9.2.2.3A		–	
>>>Maximum Allowed UL Tx Power	M		9.2.1.35		–	
>>>Maximum DL TX Power	M		DL Power 9.2.1.21A		–	
>>>Minimum DL TX Power	M		DL Power 9.2.1.21A		–	
>>>Neighbouring UMTS Cell Information	O		9.2.1.41A		–	
>>>Neighbouring GSM Cell Information	O		9.2.1.41C		–	
>>>Primary CPICH Power	M		9.2.1.44		–	
>>>PC Preamble	M		9.2.2.27a		–	
>>>SRB Delay	M		9.2.2.39A		–	
>>>Cell GA Additional Shapes	O		9.2.1.5B		YES	ignore
>>>DL Power Balancing Activation Indicator	O		9.2.2.10B		YES	ignore
>>>HCS Prio	O		9.2.1.30N		YES	ignore
>>>Active MBMS Bearer Service List		*0..<maxnoof ActiveMBMS>*			GLOBAL	ignore
>>>>TMGI	M		9.2.1.80		–	
>>>>Transmission Mode	O		9.2.1.81		–	
>>>>Preferred Frequency Layer	O		UARFCN 9.2.1.66		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>>E-DCH RL Set ID	O		RL Set ID 9.2.2.35		YES	ignore
>>>E-DCH FDD DL Control Channel Information	O		9.2.2.4D		YES	ignore
>>>Initial DL DPCH Timing Adjustment	O		DL DPCH Timing Adjustment 9.2.2.9.A		YES	ignore
>>>F-DPCH Slot Format	O		9.2.2.85		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore
HS-DSCH Serving Cell Change Information Response	O		9.2.2.19g		YES	Ignore
E-DCH Serving Cell Change Information Response	O		9.2.2.19h		YES	Ignore
MAC-hs Reset Indicator	O		9.2.1.34B		YES	ignore

Range bound	Explanation
maxnoofRLs	Maximum number of radio links for one UE.
maxnoofActiveMBMS	Maximum number of MBMS bearer services that are active in parallel.

9.1.8.2   TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
CHOICE *Cause Level*	M				YES	ignore
>*General*					–	
>>Cause	M		9.2.1.5		–	
>*RL Specific*					–	
>>Unsuccessful RL Information Response		*1*			YES	ignore
>>>RL ID	M		9.2.1.49		–	
>>>Cause	M		9.2.1.5		–	

Criticality Diagnostics	O		9.2.1.13		YES	ignore

9.1.9   RADIO LINK DELETION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
RL Information		*1..<maxno ofRLs>*			EACH	notify
>RL ID	M		9.2.1.49		–	

Range bound	Explanation
maxnoofRLs	Maximum number of radio links for one UE

9.1.10   RADIO LINK DELETION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
Criticality Diagnostics	O		9.2.1.13		YES	ignore

9.1.11   RADIO LINK RECONFIGURATION PREPARE

9.1.11.1   FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
Allowed Queuing Time	O		9.2.1.2		YES	reject
UL DPCH Information		*0..1*			YES	reject
>UL Scrambling Code	O		9.2.2.53		–	
>UL SIR Target	O		Uplink SIR 9.2.1.69		–	
>Min UL Channelisation Code Length	O		9.2.2.25		–	

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IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>Max Number of UL DPDCHs	C – CodeLen		9.2.2.24		–	
>Puncture Limit	O		9.2.1.46	For the UL.	–	
>TFCS	O		9.2.1.63	TFCS for the UL.	–	
>UL DPCCH Slot Format	O		9.2.2.52		–	
>Diversity Mode	O		9.2.2.8		–	
>Not Used	O		NULL		–	
>Not Used	O		NULL		–	
>UL DPDCH Indicator For E-DCH Operation	O		9.2.2.52A		YES	reject
DL DPCH Information		*0..1*			YES	reject
>TFCS	O		9.2.1.63	TFCS for the DL.	–	
>DL DPCH Slot Format	O		9.2.2.9		–	
>Number of DL Channelisation Codes	O		9.2.2.26A		–	
>TFCI Signalling Mode	O		9.2.2.46		–	
>TFCI Presence	C-SlotFormat		9.2.1.55		–	
>Multiplexing Position	O		9.2.2.26		–	
>Limited Power Increase	O		9.2.2.21A		–	
>DL DPCH Power Information		*0..1*			YES	reject
>>Power Offset Information		*1*			–	
>>>PO1	M		Power Offset 9.2.2.30	Power offset for the TFCI bits	–	
>>>PO2	M		Power Offset 9.2.2.30	Power offset for the TPC bits	–	
>>>PO3	M		Power Offset 9.2.2.30	Power offset for the pilot bits	–	
>>FDD TPC Downlink Step Size	M		9.2.2.16		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>Inner Loop DL PC Status	M		9.2.2.21a		–	
DCHs To Modify	O		FDD DCHs To Modify 9.2.2.13C		YES	reject
DCHs To Add	O		DCH FDD Information 9.2.2.4A		YES	reject
DCHs To Delete		*0..<maxnoof DCHs>*			GLOBAL	reject
>DCH ID	M		9.2.1.16		–	
RL Information		*0..<maxnoof RLs>*			EACH	reject
>RL ID	M		9.2.1.49		–	
>Not Used	O		NULL		–	
>Not Used	O		NULL		–	
>Transmit Diversity Indicator	C – Diversity mode		9.2.2.48		–	
>DL Reference Power	O		DL Power 9.2.1.21A	Power on DPCH	YES	ignore
>RL Specific DCH Information	O		9.2.1.49A		YES	ignore
>DL DPCH Timing Adjustment	O		9.2.2.9A	Required RL Timing Adjustment	YES	reject
>Phase Reference Update Indicator	O		9.2.2.27B		YES	ignore
>RL specific E-DCH Information	O		9.2.2.35a		YES	reject
>E-DCH RL Indication	O		9.2.2.4E		YES	reject
Transmission Gap Pattern Sequence Information	O		9.2.2.47A		YES	reject
HS-DSCH Information	O		HS-DSCH FDD Information 9.2.2.19a		YES	reject

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-DSCH Information To Modify	O		9.2.1.30Q		YES	reject
HS-DSCH MAC-d Flows To Add	O		HS-DSCH MAC-d Flows Information 9.2.1.30OA		YES	reject
HS-DSCH MAC-d Flows To Delete	O		9.2.1.30OB		YES	reject
HS-PDSCH RL ID	O		RL ID 9.2.1.49		YES	reject
E-DPCH Information		0..1			YES	reject
>Maximum Set of E-DPDCHs	O		9.2.2.24e		−	
>Puncture Limit	O		9.2.1.46		−	
>E-TFCS Information	O		9.2.2.4G		−	
>E-TTI	O		9.2.2.4J		−	
>E-DPCCH Power Offset	O		9.2.2.4K		−	
>E-RGCH 2-Index-Step Threshold	O		9.2.2.64		−	
>E-RGCH 3-Index-Step Threshold	O		9.2.2.65		−	
>HARQ Info for E-DCH	O		9.2.2.66		−	
>HS-DSCH Configured Indicator	O		9.2.2.19C		−	
E-DCH FDD Information	O		9.2.2.4B		YES	reject
E-DCH FDD Information to Modify	O		9.2.2.4F		YES	reject
E-DCH MAC-d Flows to Add	O		E-DCH MAC-d flows Information 9.2.2.4MC		YES	reject
E-DCH MAC-d Flows to Delete	O		9.2.1.90		YES	reject
Serving E-DCH RL	O		9.2.2.38C		YES	reject
F-DPCH Information		*0..1*			YES	reject

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>Power Offset Information		*1*			–	
>>PO2	M		Power Offset 9.2.2.30	This IE shall be ignored by DRNS.	–	
>FDD TPC Downlink Step Size	M		9.2.2.16		–	
>Limited Power Increase	M		9.2.2.21A		–	
>Inner Loop DL PC Status	M		9.2.2.21a		–	
>F-DPCH Slot Format Support Request	O		9.2.2.86		YES	reject
>F-DPCH Slot Format	O		9.2.2.85		YES	Ignore
Fast Reconfiguration Mode	O		9.2.2.70		YES	ignore
CPC Information		*0..1*			YES	reject
>Continuous Packet Connectivity DTX-DRX Information	O		9.2.2.72		–	
>Continuous Packet Connectivity DTX-DRX Information To Modify	O		9.2.2.73		–	
>Continuous Packet Connectivity HS-SCCH less Information	O		9.2.2.74		–	
>Continuous Packet Connectivity HS-SCCH less Deactivate Indicator	O		9.2.2.75A		YES	reject

Condition	Explanation
CodeLen	The IE shall be present only if the *Min UL Channelisation Code length* IE equals to 4.
SlotFormat	The IE shall only be present if the *DL DPCH Slot Format* IE is equal to any of the values from 12 to 16.
Diversity mode	The IE shall be present if *Diversity Mode* IE is present in the *UL DPCH Information* IE and is not equal to "none".

Range bound	Explanation
maxnoofDCHs	Maximum number of DCHs for a UE.
maxnoofRLs	Maximum number of RLs for a UE.

9.1.11.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
Allowed Queuing Time	O		9.2.1.2		YES	reject
UL CCTrCH To Add		*0..<maxno ofCCTrC Hs>*		For DCH and USCH	EACH	notify
>CCTrCH ID	M		9.2.3.2		–	
>TFCS	M		9.2.1.63	For the UL.	–	
>TFCI Coding	M		9.2.3.11		–	
>Puncture Limit	M		9.2.1.46		–	
>UL SIR Target	O		Uplink SIR 9.2.1.69	Mandatory for 1.28Mcps TDD; not applicable to 3.84Mcps TDD or 7.68Mcps TDD	YES	reject
>TDD TPC Uplink Step Size	O		9.2.3.10a	Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD or 7.68Mcps TDD	YES	reject
UL CCTrCH To Modify		*0..<maxno ofCCTrC Hs>*			EACH	notify
>CCTrCH ID	M		9.2.3.2		–	
>TFCS	O		9.2.1.63	For the UL.	–	
>TFCI Coding	O		9.2.3.11		–	
>Puncture Limit	O		9.2.1.46		–	
>UL SIR Target	O		Uplink SIR 9.2.1.69	Applicable to 1.28Mcps TDD only	YES	reject
>TDD TPC Uplink Step Size	O		9.2.3.10a	Applicable to 1.28Mcps TDD only	YES	reject
UL CCTrCH to Delete		*0..<maxno ofCCTrC*			EACH	notify

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
			Hs>			
>CCTrCH ID	M		9.2.3.2		−	
DL CCTrCH To Add		*0..<maxnoofCCTrCHs>*		For DCH and DSCH	EACH	notify
>CCTrCH ID	M		9.2.3.2		−	
>TFCS	M		9.2.1.63	For the DL.	−	
>TFCI Coding	M		9.2.3.11		−	
>Puncture Limit	M		9.2.1.46		−	
>TPC CCTrCH List		*0..<maxnoCCTrCHs>*		List of uplink CCTrCH which provide TPC	−	
>>TPC CCTrCH ID	M		CCTrCH ID 9.2.3.2		−	
>TDD TPC Downlink Step Size	O		9.2.3.10		YES	reject
DL CCTrCH To Modify		*0..<maxnoofCCTrCHs>*			EACH	notify
>CCTrCH ID	M		9.2.3.2		−	
>TFCS	O		9.2.1.63	For the DL.	−	
>TFCI Coding	O		9.2.3.11		−	
>Puncture Limit	O		9.2.1.46		−	
>TPC CCTrCH List		*0..<maxnoCCTrCHs>*		List of uplink CCTrCH which provide TPC	−	
>>TPC CCTrCH ID	M		CCTrCH ID 9.2.3.2		−	
>TDD TPC Downlink Step Size	O		9.2.3.10		YES	reject
DL CCTrCH to Delete		*0..<maxnoofCCTrCHs>*			EACH	notify
>CCTrCH ID	M		9.2.3.2		−	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DCHs To Modify	O		TDD DCHs To Modify 9.2.3.8B		YES	reject
DCHs To Add	O		DCH TDD Information 9.2.3.2A		YES	reject
DCHs to Delete		*0..<maxno ofDCHs>*			GLOBAL	reject
>DCH ID	M		9.2.1.16		–	
DSCHs To Modify		*0..<maxno ofDSCHs >*			GLOBAL	reject
>DSCH ID	M		9.2.3.3ae		–	
>CCTrCH ID	O		9.2.3.2	DL CCTrCH in which the DSCH is mapped.	–	
>TrCH Source Statistics Descriptor	O		9.2.1.65		–	
>Transport Format Set	O		9.2.1.64		–	
>Allocation/Retention Priority	O		9.2.1.1		–	
>Scheduling Priority Indicator	O		9.2.1.51A		–	
>BLER	O		9.2.1.4		–	
>Transport Bearer Request Indicator	M		9.2.1.61		–	
>Traffic Class	O		9.2.1.58A		YES	ignore
>Binding ID	O		9.2.1.3	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>Transport Layer Address	O		9.2.1.62	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>TNL QoS	O		9.2.1.56A	Shall be ignored if	YES	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
				bearer establishment with ALCAP.		
DSCHs To Add	O		DSCH TDD Information 9.2.3.3a		YES	reject
DSCHs to Delete		*0..<maxnoofDSCHs>*			GLOBAL	reject
>DSCH ID	M		9.2.3.3ae		–	
USCHs To Modify		*0..<maxnoofUSCHs>*			GLOBAL	reject
>USCH ID	M		9.2.3.14		–	
>CCTrCH ID	O		9.2.3.2	UL CCTrCH in which the USCH is mapped.	–	
>TrCH Source Statistics Descriptor	O		9.2.1.65		–	
>Transport Format Set	O		9.2.1.64		–	
>Allocation/Retention Priority	O		9.2.1.1		–	
>Scheduling Priority Indicator	O		9.2.1.51A		–	
>BLER	O		9.2.1.4		–	
>Transport Bearer Request Indicator	M		9.2.1.61		–	
>RB Info		*0..<maxnoofRB>*		All Radio Bearers using this USCH	–	
>>RB Identity	M		9.2.3.5B		–	
>Traffic class	O		9.2.1.58A		YES	ignore
>Binding ID	O		9.2.1.3	Shall be ignored if bearer establishment with ALCAP.	YES	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>Transport Layer Address	O		9.2.1.62	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>TNL QoS	O		9.2.1.56A		YES	ignore
USCHs To Add	O		USCH Information 9.2.3.15		YES	reject
USCHs to Delete		*0..<maxno ofUSCHs >*			GLOBAL	reject
>USCH ID	M		9.2.3.14		–	
Primary CCPCH RSCP	O		9.2.3.5		YES	ignore
DL Time Slot ISCP Info	O		9.2.3.2D	Applicable to 3.84Mcps TDD and 7.68Mcps TDD only	YES	ignore
DL Time Slot ISCP Info LCR	O		9.2.3.2F	Applicable to 1.28Mcps TDD only	YES	ignore
HS-DSCH Information	O		HS-DSCH TDD Information9.2.3.3aa		YES	reject
HS-DSCH Information To Modify	O		9.2.1.30Q		YES	reject
HS-DSCH MAC-d Flows To Add	O		HS-DSCH MAC-d Flows Information9.2.1.30OA		YES	reject
HS-DSCH MAC-d Flows To Delete	O		9.2.1.30OB		YES	reject
HS-PDSCH RL ID	O		RL ID 9.2.1.49		YES	reject
PDSCH-RL-ID	O		RL ID 9.2.1.49		YES	ignore
UL Synchronisation Parameters LCR		*0..1*		Mandatory for 1.28Mcps	YES	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
				TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.		
>Uplink Synchronisation Step Size	M		9.2.3.13J		–	
>Uplink Synchronisation Frequency	M		9.2.3.13I		–	
RL Information		*0..<maxno ofRLs.*			YES	ignore
>RL ID	M		9.2.1.49		–	
>RL Specific DCH Information	O		9.2.1.49A		–	
Primary CCPCH RSCP Delta	O		9.2.3.5a		YES	ignore
E-DCH Information		*0..1*		3.84Mcps TDD only	YES	reject
>E-PUCH Information	O		9.2.3.36		–	
>E-TFCS Information TDD	O		9.2.3.37		–	
>E-DCH MAC-d Flows to Add	O		9.2.3.38		–	
>E-DCH MAC-d Flows to Delete	O		9.2.1.90		–	
>E-DCH TDD Information	O		9.2.3.40		–	
>E-DCH TDD Information to Modify	O		9.2.3.42		–	
E-DCH Serving RL	O		9.2.1.49	3.84Mcps TDD only	YES	reject
E-DCH Information 7.68Mcps		*0..1*		7.68Mcps TDD only	YES	reject
>E-PUCH Information	O		9.2.3.36		–	
>E-TFCS Information TDD	O		9.2.3.37		–	
>E-DCH MAC-d Flows to Add	O		9.2.3.38		–	
>E-DCH MAC-d Flows to Delete	O		9.2.1.90		–	
>E-DCH TDD Information 7.68Mcps	O		9.2.3.51		–	
>E-DCH TDD Information	O		9.2.3.42		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
to Modify						
E-DCH Information 1.28Mcps		*0..1*		1.28Mcps TDD only	YES	reject
>E-PUCH Information LCR	O		9.2.3.36a		–	
>E-TFCS Information TDD	O		9.2.3.37		–	
>E-DCH MAC-d Flows to Add	O		9.2.3.38		–	
>E-DCH MAC-d Flows to Delete	O		9.2.1.90		–	
>E-DCH TDD Information LCR	O		9.2.3.40a		–	
>E-DCH TDD Information to Modify	O		9.2.3.42		–	

Range bound	Explanation
maxnoofDCHs	Maximum number of DCHs for a UE.
maxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.
maxnoofDSCHs	Maximum number of DSCHs for one UE.
maxnoofUSCHs	Maximum number of USCHs for one UE.
maxnoofRLs	Maximum number of RLs for one UE

9.1.12 RADIO LINK RECONFIGURATION READY

9.1.12.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
RL Information Response		*0..<maxnoofRLs>*			EACH	ignore
>RL ID	M		9.2.1.49		–	
>Maximum Uplink SIR	O		Uplink SIR 9.2.1.69		–	
>Minimum Uplink SIR	O		Uplink SIR 9.2.1.69		–	

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IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>Maximum DL TX Power	O		DL Power 9.2.1.21A		–	
>Minimum DL TX Power	O		DL Power 9.2.1.21A		–	
>Not Used	O		NULL		–	
>DL Code Information	O		FDD DL Code Information 9.2.2.14A		YES	ignore
>DCH Information Response	O		9.2.1.16A		YES	ignore
>Not Used	O		NULL		–	
>DL Power Balancing Updated Indicator	O		9.2.2.10D		YES	ignore
>Primary CPICH Usage For Channel Estimation	O		9.2.2.32A		YES	ignore
>Secondary CPICH Information Change	O		9.2.2.38B		YES	ignore
>E-DCH FDD Information Response	O		9.2.2.4C		YES	ignore
>E-DCH RL Set ID	O		RL Set ID 9.2.2.35		YES	ignore
>E-DCH FDD DL Control Channel Information	O		9.2.2.4D		YES	ignore
>F-DPCH Slot Format	O		9.2.2.85		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore
HS-DSCH-RNTI	O		9.2.1.30P		YES	ignore
HS-DSCH Information Response	O		HS-DSCH FDD Information Response 9.2.2.19b		YES	ignore
MAC-hs Reset Indicator	O		9.2.1.34B		YES	ignore
Fast Reconfiguration Permission	O		9.2.2.71	FDD only	YES	ignore
Continuous Packet Connectivity HS-SCCH less Information Response	O		9.2.2.75		YES	ignore

Range bound	Explanation
maxnoofRLs	Maximum number of RLs for a UE.

9.1.12.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
RL Information Response		*0..<maxnoof RLs>*		See Note 1 below	YES	ignore
>RL ID	M		9.2.1.49		–	
>Maximum Uplink SIR	O		Uplink SIR 9.2.1.69		–	
>Minimum Uplink SIR	O		Uplink SIR 9.2.1.69		–	
>Maximum DL TX Power	O		DL Power 9.2.1.21A		–	
>Minimum DL TX Power	O		DL Power 9.2.1.21A		–	
>Secondary CCPCH Info TDD	O		9.2.3.7B	Applicable to 3.84Mcps TDD only	–	
>UL CCTrCH Information		*0..<maxnoof CCTrCHs>*		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
>>UL DPCH to be Added		*0..1*		Applicable to 3.84Mcps TDD only	YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
>>> Rx Timing Deviation	O		9.2.3.7A		–	
>>>UL Timeslot Information	M		9.2.3.13C		–	
>>> Rx Timing Deviation 3.84 Mcps	O		9.2.3.35		YES	Ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Extended						
>>UL DPCH to be Modified		*0..1*			YES	ignore
>>>Repetition Period	O		9.2.3.7		–	
>>>Repetition Length	O		9.2.3.6		–	
>>>TDD DPCH Offset	O		9.2.3.8A		–	
>>>UL Timeslot Information		*0..<maxnoOfTS>*		Applicable to 3.84Mcps TDD only	–	
>>>>Time Slot	M		9.2.1.56		–	
>>>>Midamble Shift And Burst Type	O		9.2.3.4		–	
>>>>TFCI Presence	O		9.2.1.55		–	
>>>>UL Code Information		*0..<maxnoOfDPCHs>*			–	
>>>>>DPCH ID	M		9.2.3.3		–	
>>>>>TDD Channelisation Code	O		9.2.3.8		–	
>>>UL Timeslot Information LCR		*0..<maxnoOfTSLCR>*		Applicable to 1.28Mcps TDD only	GLOBAL	ignore
>>>>Time Slot LCR	M		9.2.3.12a		–	
>>>>Midamble Shift LCR	O		9.2.3.4C		–	
>>>>TFCI Presence	O		9.2.1.55		–	
>>>>UL Code Information LCR		*0..<maxnoOfDPCHLCR>*			GLOBAL	ignore
>>>>>DPCH ID	M		9.2.3.3		–	
>>>>>TDD Channelisation Code LCR	O		9.2.3.8a		–	
>>>>> TDD UL DPCH	O		9.2.3.10C		YES	reject

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IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Time Slot Format LCR						
>>>**UL Timeslot Information 7.68Mcps**		*0..<maxnoOfTS>*		Applicable to 7.68Mcps TDD only	GLOBAL	ignore
>>>>Time Slot	M		9.2.1.56		–	
>>>>Midamble Shift And Burst Type 7.68Mcps	O		9.2.3.23		–	
>>>>TFCI Presence	O		9.2.1.55		–	
>>>>**UL Code Information 7.68Mcps**		*0..<maxnoOfDPCHs768>*			GLOBAL	ignore
>>>>>DPCH ID	M		9.2.3.3		–	
>>>>>TDD Channelisation Code 7.68Mcps	O		9.2.3.25		–	
>>**UL DPCH to be Deleted**		*0..<maxnoofDPCHs>*			GLOBAL	ignore
>>>DPCH ID	M		9.2.3.3		–	
>>**UL DPCH to be Added LCR**		*0..1*		Applicable to 1.28Mcps TDD only	YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
>>>UL Timeslot Information LCR	M		9.2.3.13G		–	
>>**UL DPCH to be Added 7.68Mcps**		*0..1*		Applicable to 7.68Mcps TDD only	YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
>>> Rx Timing Deviation 7.68Mcps	O		9.2.3.30		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>>UL Timeslot Information 7.68Mcps	M		9.2.3.26		–	
>DL CCTrCH Information		*0..<maxnoof CCTrCHs>*		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
>>DL DPCH to be Added		*0..1*		Applicable to 3.84Mcps TDD only	YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
>>>DL Timeslot Information	M		9.2.3.2C		–	
>>DL DPCH to be Modified		*0..1*			YES	ignore
>>>Repetition Period	O		9.2.3.7		–	
>>>Repetition Length	O		9.2.3.6		–	
>>>TDD DPCH Offset	O		9.2.3.8A		–	
>>>DL Timeslot Information		*0..<maxnoO fTS>*		Applicable to 3.84Mcps TDD only	–	
>>>>Time Slot	M		9.2.1.56		–	
>>>>Midamble Shift And Burst Type	O		9.2.3.4		–	
>>>>TFCI Presence	O		9.2.1.55		–	
>>>>DL Code Information		*0..<maxnoO fDPCHs>*			–	
>>>>>DPCH ID	M		9.2.3.3		–	
>>>>>TDD Channelisation Code	O		9.2.3.8		–	
>>>DL Timeslot Information LCR		*0..<maxnoO fTSLCR>*		Applicable to 1.28Mcps TDD only	GLOBAL	ignore
>>>>Time Slot LCR	M		9.2.3.12a		–	
>>>>Midamble Shift LCR	O		9.2.3.4C		–	
>>>>TFCI Presence	O		9.2.1.55		–	

ETSI

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>>>**DL Code Information LCR**		*0..<maxnoOfDPCHLCR>*			GLOBAL	ignore
>>>>>DPCH ID	M		9.2.3.3		–	
>>>>>TDD Channelisation Code LCR	O		9.2.3.8a		–	
>>>>> TDD DL DPCH Time Slot Format LCR	O		9.2.3.8E		YES	reject
>>>>Maximum DL TX Power	O		DL Power 9.2.1.21A	Maximum allowed power on DPCH	YES	ignore
>>>>Minimum DL TX Power	O		DL Power 9.2.1.21A	Minimum allowed power on DPCH	YES	ignore
>>>**DL Timeslot Information 7.68Mcps**		*0..<maxnoOfTS>*		Applicable to 7.68Mcps TDD only	GLOBAL	ignore
>>>>Time Slot	M		9.2.1.56		–	
>>>>Midamble Shift And Burst Type 7.68Mcps	O		9.2.3.23		–	
>>>>TFCI Presence	O		9.2.1.55		–	
>>>>**DL Code Information**		*0..<maxnoOfDPCHs768>*			–	
>>>>>DPCH ID 7.68Mcps	M		9.2.3.34		–	
>>>>>TDD Channelisation Code 7.68Mcps	O		9.2.3.25		–	
>>**DL DPCH to be Deleted**		*0..<maxnoofDPCHs>*			GLOBAL	ignore
>>>DPCH ID	M		9.2.3.3		–	
>>**DL DPCH to be Deleted 7.68Mcps TDD**		*0..<maxnoofDPCHs768>*			GLOBAL	ignore
>>>DPCH ID 7.68Mcps	M		9.2.3.34		–	
>>**DL DPCH to be Added LCR**		*0..1*		Applicable to 1.28Mcps	YES	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
				TDD only		
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
>>>DL Timeslot Information LCR	M		9.2.3.2E		–	
>>DL DPCH to be Added 7.68Mcps		*0..1*		Applicable to 7.68Mcps TDD only	YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
>>>DL Timeslot Information 7.68Mcps	M		9.2.3.28		–	
>>CCTrCH Maximum DL TX Power	O		DL Power 9.2.1.21A	Maximum allowed power on DPCH Applicable to 3.84Mcps TDD and 7.68Mcps TDD only	YES	ignore
>>CCTrCH Minimum DL TX Power	O		DL Power 9.2.1.21A	Minimum allowed power on DPCH Applicable to 3.84Mcps TDD and 7.68Mcps TDD only	YES	ignore
>DCH Information Response	O		9.2.1.16A		YES	ignore
>DSCH to be Added or Modified		*0 .. <maxnoof DSCHs>*			GLOBAL	ignore
>>DSCH ID	M		9.2.3.3ae		–	
>>Transport Format Management	M		9.2.3.13		–	
>>DSCH Flow Control Information	M		9.2.3.3ag		–	
>>Binding ID	O		9.2.1.3		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>Transport Layer Address	O		9.2.1.62		–	
>USCH to be Added or Modified		*0 .. <maxnoof USCHs>*			GLOBAL	ignore
>>USCH ID	M		9.2.3.14		–	
>>Transport Format Management	M		9.2.3.13		–	
>>Binding ID	O		9.2.1.3		–	
>>Transport Layer Address	O		9.2.1.62		–	
>Uplink Timing Advance Control LCR	O		9.2.3.13K	Applicable to 1.28Mcps TDD only	YES	ignore
>Secondary CCPCH Info TDD LCR	O		9.2.3.7F	Applicable to 1.28Mcps TDD only	YES	ignore
>Secondary CCPCH Info 7.68Mcps TDD	O		9.2.3.22	Applicable to 7.68Mcps TDD only	YES	ignore
>UARFCN	O		9.2.1.66	Applicable to 1.28Mcps TDD only. Mandatory for 1.28Mcps TDD when using multiple frequencies. Corresponds to Nt (3GPP TS 25.105)	YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore
HS-DSCH-RNTI	O		9.2.1.30P		YES	ignore
HS-DSCH Information Response	O		HS-DSCH TDD Information Response 9.2.3.3ab		YES	ignore
DSCH-RNTI	O		9.2.3.3ah		YES	ignore
MAC-hs Reset Indicator	O		9.2.1.34B		YES	ignore
E-DCH Information	O		E-DCH TDD	3.84Mcps	YES	ignore

ETSI

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Response			Information Response 9.2.3.41	TDD only		
E-DCH Information Response 7.68Mcps	O		E-DCH TDD Information Response 7.68Mcps 9.2.3.52	7.68Mcps TDD only	YES	ignore
E-DCH Information Response 1.28Mcps	O		E-DCH TDD Information Response 1.28Mcps 9.2.3.41a	1.28Mcps TDD only	YES	ignore
PowerControl GAP	O		INTEGER (1..255)	1.28Mcps TDD only	YES	ignore

Note 1: This information element is a simplified representation of the ASN.1. Repetition 1 and repetition 2 through maxnoofRLs are represented by separate ASN.1 structures with different criticalities.

Range bound	Explanation
maxnoofDSCHs	Maximum number of DSCHs for one UE.
maxnoofUSCHs	Maximum number of USCHs for one UE.
maxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.
maxnoofTS	Maximum number of Timeslots for a UE for 3.84Mcps TDD or 7.68Mcps TDD.
maxnoofDPCHs	Maximum number of DPCH for a UE for 3.84Mcps TDD.
maxnoofTSLCRs	Maximum number of Timeslots for a UE for 1.28Mcps TDD.
maxnoofDPCHLCRs	Maximum number of DPCH for a UE for 1.28Mcps TDD.
maxnoofRLs	Maximum number of RLs for one UE
maxnoofDPCHs768	Maximum number of DPCH for a UE for 7.68Mcps TDD.

9.1.13 RADIO LINK RECONFIGURATION COMMIT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore

Transaction ID	M		9.2.1.59		–	
CFN	M		9.2.1.9		YES	ignore
Active Pattern Sequence Information	O		9.2.2.A	FDD only	YES	ignore
Fast Reconfiguration Mode	O		9.2.2.70	FDD only	YES	reject

9.1.14 RADIO LINK RECONFIGURATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
CHOICE *Cause Level*	M				YES	ignore
>*General*					–	
>>Cause	M		9.2.1.5		–	
>*RL Specific*					–	
>>RLs Causing Reconfiguration Failure		*0..<maxnoof RLs>*			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>Cause	M		9.2.1.5		–	
>>>Max UE DTX Cycle	C-DTX-CycleNotAvailable		9.2.2.87		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore

Condition	Explanation
DTX-CycleNotAvailable	The IE shall be present if the *Cause* IE is set to "Continuous Packet Connectivity UE DTX Cycle not Available ".

Range bound	Explanation
maxnoofRLs	Maximum number of RLs for a UE.

9.1.15 RADIO LINK RECONFIGURATION CANCEL

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	

9.1.16   RADIO LINK RECONFIGURATION REQUEST

9.1.16.1   FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
Allowed Queuing Time	O		9.2.1.2		YES	reject
UL DPCH Information		*0..1*			YES	reject
>TFCS	O		9.2.1.63	TFCS for the UL.	–	
>UL DPDCH Indicator For E-DCH Operation	O		9.2.2.52A		YES	reject
DL DPCH Information		*0..1*			YES	reject
>TFCS	O		9.2.1.63	TFCS for the DL.	–	
>TFCI Signalling Mode	O		9.2.2.46		–	
>Limited Power Increase	O		9.2.2.21A		–	
DCHs To Modify	O		FDD DCHs To Modify 9.2.2.13C		YES	reject
DCHs To Add	O		DCH FDD Information 9.2.2.4A		YES	reject
DCHs To Delete		*0..<maxno ofDCHs>*			GLOBAL	reject
>DCH ID	M		9.2.1.16		–	
Transmission Gap Pattern Sequence Information	O		9.2.2.47A		YES	reject
RL Information		*0..<maxno ofRLs>*			EACH	ignore
>RL ID	M		9.2.1.49		–	
>RL Specific DCH Information	O		9.2.1.49A		–	
>RL specific E-DCH Information	O		9.2.2.35a		YES	reject

>E-DCH RL Indication	O		9.2.2.4E		YES	reject
DL Reference Power Information	O		9.2.2.10C		YES	ignore
HS-DSCH Information	O		HS-DSCH FDD Information 9.2.2.19a		YES	reject
HS-DSCH Information To Modify Unsynchronised	O		9.2.1.30NA		YES	reject
HS-DSCH MAC-d Flows To Add	O		HS-DSCH MAC-d Flows Information 9.2.1.30OA		YES	reject
HS-DSCH MAC-d Flows To Delete	O		9.2.1.30OB		YES	reject
HS-PDSCH RL ID	O		RL ID 9.2.1.49		YES	reject
E-DPCH Information		*0..1*			YES	reject
>Maximum Set of E-DPDCHs	O		9.2.2.24e		−	
>Puncture Limit	O		9.2.1.46		−	
>E-TFCS Information	O		9.2.2.4G		−	
>E-TTI	O		9.2.2.4J		−	
>E-DPCCH Power Offset	O		9.2.2.4K		−	
>E-RGCH 2-Index-Step Threshold	O		9.2.2.64		−	
>E-RGCH 3-Index-Step Threshold	O		9.2.2.65		−	
>HARQ Info for E-DCH	O		9.2.2.66		−	
>HS-DSCH Configured Indicator	O		9.2.2.19C		−	
E-DCH FDD Information	O		9.2.2.4B		YES	reject
E-DCH FDD Information to Modify	O		9.2.2.4F		YES	reject
E-DCH MAC-d Flows to Add	O		E-DCH MAC-d flows Information 9.2.2.4MC		YES	reject

E-DCH MAC-d Flows to Delete	O		9.2.1.90		YES	reject
Serving E-DCH RL	O		9.2.2.38C		YES	reject
CPC Information		*0..1*			YES	reject
>Continuous Packet Connectivity DTX-DRX Information	O		9.2.2.72		–	
>Continuous Packet Connectivity DTX-DRX Information To Modify	O		9.2.2.73		–	
>Continuous Packet Connectivity HS-SCCH less Information	O		9.2.2.74		–	
>Continuous Packet Connectivity HS-SCCH less Deactivate Indicator	O		9.2.2.75A		YES	reject

Range Bound	Explanation
maxnoofDCHs	Maximum number of DCHs for one UE.
maxnoofRLs	Maximum number of RLs for a UE.

9.1.16.2   TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
Allowed Queuing Time	O		9.2.1.2		YES	reject
UL CCTrCH Information To Modify		*0..<maxnoof CCTrCHs>*			EACH	notify
>CCTrCH ID	M		9.2.3.2		–	
>TFCS	O		9.2.1.63		–	
>UL SIR Target	O		Uplink SIR 9.2.1.69	Applicable to 1.28Mcps TDD only	YES	reject
UL CCTrCH Information to Delete		*0..<maxnoof CCTrCHs>*			EACH	notify
>CCTrCH ID	M		9.2.3.2		–	
DL CCTrCH Information To Modify		*0..<maxnoof CCTrCHs>*			EACH	notify

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>CCTrCH ID	M		9.2.3.2		–	
>TFCS	O		9.2.1.63		–	
DL CCTrCH Information to Delete		*0..<maxnoof CCTrCHs>*			EACH	notify
>CCTrCH ID	M		9.2.3.2		–	
DCHs To Modify	O		TDD DCHs To Modify 9.2.3.8B		YES	reject
DCHs To Add	O		DCH TDD Information 9.2.3.2A		YES	reject
DCHs to Delete		*0..<maxnoof DCHs>*			GLOBAL	reject
>DCH ID	M		9.2.1.16		–	
RL Information		*0..<maxnoof RLs>*			YES	ignore
>RL ID	M		9.2.1.49		–	
>RL Specific DCH Information	O		9.2.1.49A		–	
UL Synchronisation Parameters LCR		*0..1*		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.	YES	ignore
>Uplink Synchronisation Step Size	M		9.2.3.13J		–	
>Uplink Synchronisation Frequency	M		9.2.3.13I		–	
HS-DSCH Information	O		HS-DSCH TDD Information 9.2.3.3aa		YES	reject
HS-DSCH Information To Modify Unsynchronised	O		9.2.1.30NA		YES	reject
HS-DSCH MAC-d Flows To Add	O		HS-DSCH MAC-d Flows Information 9.2.1.30O		YES	reject

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
			A			
HS-DSCH MAC-d Flows To Delete	O		9.2.1.30O B		YES	reject
HS-PDSCH RL ID	O		RL ID 9.2.1.49		YES	reject
E-DCH Information		0..1		3.84Mcps TDD only	YES	reject
>E-PUCH Information	O		9.2.3.36		–	
>E-TFCS Information TDD	O		9.2.3.37		–	
>E-DCH MAC-d Flows to Add	O		9.2.3.38		–	
>E-DCH MAC-d Flows to Delete	O		9.2.1.90		–	
>E-DCH TDD Information	O		9.2.3.40		–	
>E-DCH TDD Information to Modify	O		9.2.3.42		–	
E-DCH Serving RL	O		9.2.1.49	3.84Mcps TDD only	YES	reject
E-DCH Information 7.68Mcps		*0..1*		7.68Mcps TDD only	YES	reject
>E-PUCH Information	O		9.2.3.36		–	
>E-TFCS Information TDD	O		9.2.3.37		–	
>E-DCH MAC-d Flows to Add	O		9.2.3.38		–	
>E-DCH MAC-d Flows to Delete	O		9.2.1.90		–	
>E-DCH TDD Information 7.68Mcps	O		9.2.3.51		–	
>E-DCH TDD Information to Modify	O		9.2.3.42		–	
E-DCH Information 1.28Mcps		0..1		1.28Mcps TDD only	YES	reject
>E-PUCH Information LCR	O		9.2.3.36a		–	
>E-TFCS Information TDD	O		9.2.3.37		–	
>E-DCH MAC-d Flows to Add	O		9.2.3.38		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>E-DCH MAC-d Flows to Delete	O		9.2.1.90		–	
>E-DCH TDD Information LCR	O		9.2.3.40a		–	
>E-DCH TDD Information to Modify	O		9.2.3.42		–	

Range Bound	Explanation
maxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.
maxnoofDCHs	Maximum number of DCHs for one UE.
maxnoofRLs	Maximum number of RLs for one UE

9.1.17 RADIO LINK RECONFIGURATION RESPONSE

9.1.17.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
RL Information Response		*0..<maxnoofRLs>*			EACH	ignore
>RL ID	M		9.2.1.49		–	
>Maximum Uplink SIR	O		Uplink SIR 9.2.1.69		–	
>Minimum Uplink SIR	O		Uplink SIR 9.2.1.69		–	
>Maximum DL TX Power	O		DL Power 9.2.1.21A		–	
>Minimum DL TX Power	O		DL Power 9.2.1.21A		–	
>Not Used	O		NULL		–	
>DCH Information Response	O		9.2.1.16A		YES	ignore
>DL Code Information	O		FDD DL Code Information		YES	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
			9.2.2.14A			
>DL Power Balancing Updated Indicator	O		9.2.2.10D		YES	ignore
>E-DCH FDD Information Response	O		9.2.2.4C		YES	ignore
>E-DCH RL Set ID	O		RL Set ID 9.2.2.35		YES	ignore
>E-DCH FDD DL Control Channel Information	O		9.2.2.4D		YES	ignore
>F-DPCH Slot Format	O		9.2.2.85		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore
HS-DSCH-RNTI	O		9.2.1.30P		YES	ignore
HS-DSCH Information Response	O		HS-DSCH FDD Information Response 9.2.2.19b		YES	ignore
MAC-hs Reset Indicator	O		9.2.1.34B		YES	ignore
Continuous Packet Connectivity HS-SCCH less Information Response	O		9.2.2.75		YES	Ignore

Range Bound	Explanation
maxnoofRLs	Maximum number of RLs for a UE.

9.1.17.2   TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
RL Information Response		*0..<maxnoofRLs>*		See note 1 below	YES	ignore
>RL ID	M		9.2.1.49		–	
>Maximum Uplink SIR	O		Uplink SIR 9.2.1.69		–	
>Minimum Uplink SIR	O		Uplink SIR 9.2.1.69		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>Maximum DL TX Power	O		DL Power 9.2.1.21A		–	
>Minimum DL TX Power	O		DL Power 9.2.1.21A		–	
>DCH Information Response	O		9.2.1.16A		YES	ignore
>DL CCTrCH Information		*0..<maxnoofCCTrCHs>*		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
>>DL DPCH To Modify LCR		*0..1*		Applicable to 1.28Mcps TDD only	YES	ignore
>>>DL Timeslot Information LCR		*0..<maxnoOfTSLCR>*			–	
>>>>Time Slot LCR	M		9.2.3.12a		–	
>>>>Maximum DL TX Power	O		DL Power 9.2.1.21A	Maximum allowed power on DPCH	–	
>>>>Minimum DL TX Power	O		DL Power 9.2.1.21A	Minimum allowed power on DPCH	–	
>>CCTrCH Maximum DL TX Power	O		DL Power 9.2.1.21A	Maximum allowed power on DPCH Applicable to 3.84Mcps TDD and 7.68Mcps TDD only	YES	ignore
>>CCTrCH Minimum DL TX Power	O		DL Power 9.2.1.21A	Minimum allowed power on DPCH Applicable to 3.84Mcps TDD and 7.68Mcps TDD only	YES	ignore
>Uplink Timing Advance Control LCR	O		9.2.3.13K	Applicable to 1.28Mcps TDD only	YES	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Criticality Diagnostics	O		9.2.1.13		YES	ignore
HS-DSCH-RNTI	O		9.2.1.30P		YES	ignore
HS-DSCH Information Response	O		HS-DSCH TDD Information Response 9.2.3.3ab		YES	ignore
MAC-hs Reset Indicator	O		9.2.1.34B		YES	ignore
E-DCH Information Response	O		E-DCH TDD Information Response 9.2.3.41	3.84Mcps TDD only	YES	ignore
E-DCH Information Response 7.68Mcps	O		E-DCH TDD Information Response 7.68Mcps 9.2.3.52	7.68Mcps TDD only	YES	ignore
E-DCH Information Response 1.28Mcps	O		E-DCH TDD Information Response 1.28Mcps 9.2.3.41a	1.28Mcps TDD only	YES	ignore
PowerControl GAP	O		INTEGER (1..255)	1.28Mcps TDD only	YES	ignore

Note 1: This information element is a simplified representation of the ASN.1. Repetition 1 and repetition 2 through maxnoofRLs are represented by separate ASN.1 structures with different criticalities.

Range bound	Explanation
maxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.
maxnoofTSLCRs	Maximum number of Timeslots for a UE for 1.28Mcps TDD.
maxnoofRLs	Maximum number of RLs for one UE

9.1.18   RADIO LINK FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore

Transaction ID	M		9.2.1.59		–	
CHOICE *Reporting Object*	M			Object for which the Failure shall be reported.	YES	ignore
>*RL*					–	
>>**RL Information**		*1 .. <maxnoofRLs>*			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>Cause	M		9.2.1.5		–	
>*RLS*				FDD only	–	
>>**RL Set Information**		*1 .. <maxnoofRLSets>*			EACH	ignore
>>>RL Set ID	M		9.2.2.35		–	
>>>Cause	M		9.2.1.5		–	
>*CCTrCH*				TDD only	–	
>>RL ID	M		9.2.1.49		–	
>>**CCTrCH List**		*1..<maxnoCCTrCHs>*			EACH	ignore
>>>CCTrCH ID	M		9.2.3.2		–	
>>>Cause	M		9.2.1.5		–	

Range bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE.
maxnoofRLSets	Maximum number of RL Sets for one UE.
maxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.

9.1.19 RADIO LINK RESTORE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
CHOICE *Reporting Object*	M			Object for which the Restoration shall be reported.	YES	ignore

>RL				TDD only	–	
>>RL Information		*1 .. <maxno ofRLs>*			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>RLS				FDD only	–	
>>RL Set Information		*1 .. <maxno ofRLSet s>*			EACH	ignore
>>>RL Set ID	M		9.2.2.35		–	
>CCTrCH				TDD only	–	
>>RL ID	M		9.2.1.49		–	
>>CCTrCH List		*1..<max noCCTr CHs>*			EACH	ignore
>>>CCTrCH ID	M		9.2.3.2		–	

Range bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE.
maxnoofRLSets	Maximum number of RL Sets for one UE.
maxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.

9.1.20 DL POWER CONTROL REQUEST [FDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
Power Adjustment Type	M		9.2.2.28		YES	ignore
DL Reference Power	C-Common		DL Power 9.2.1.21A		YES	ignore
Inner Loop DL PC Status	O		9.2.2.21a		YES	ignore
DL Reference Power Information	C-Individual	*1..<maxno ofRLs>*			EACH	ignore
>RL ID	M		9.2.1.49		–	
>DL Reference Power	M		DL Power 9.2.1.21A		–	
Max Adjustment Step	C-CommonO		9.2.2.23		YES	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
rIndividual						
Adjustment Period	C-CommonOrIndividual		9.2.2.B		YES	ignore
Adjustment Ratio	C-CommonOrIndividual		9.2.2.C		YES	ignore

Condition	Explanation
Common	The IE shall be present if the *Power Adjustment Type* IE is set to "Common".
Individual	The IE shall be present if the *Power Adjustment Type* IE is set to "Individual".
CommonOrIndividual	The IE shall be present if the *Power Adjustment Type* IE is set to "Common" or "Individual".

Range Bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE.

9.1.21 PHYSICAL CHANNEL RECONFIGURATION REQUEST

9.1.21.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
RL Information		*1*			YES	reject
>RL ID	M		9.2.1.49		–	
>DL Code Information	M		FDD DL Code Information 9.2.2.14A		YES	notify
>F-DPCH Slot Format	O		9.2.2.85		YES	Ignore

9.1.21.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	

RL Information		*1*			YES	reject
>RL ID	M		9.2.1.49		–	
>UL CCTrCH Information		*0.. <maxnoof CCTrCHs >*			GLOBAL	reject
>>CCTrCH ID	M		9.2.3.2		–	
>>UL DPCH Information		*1*			YES	notify
>>>Repetition Period	O		9.2.3.7		–	
>>>Repetition Length	O		9.2.3.6		–	
>>>TDD DPCH Offset	O		9.2.3.8A		–	
>>>UL Timeslot Information		*0.<maxno OfTS>*		Applicable to 3.84Mcps TDD only	–	
>>>>Time Slot	M		9.2.1.56		–	
>>>>Midamble Shift And Burst Type	O		9.2.3.4		–	
>>>>TFCI Presence	O		9.2.1.55		–	
>>>>UL Code Information	O		TDD UL Code Informatio n 9.2.3.10A		–	
>>>UL Timeslot Information LCR		*0..<maxno OfTSLCR >*		Applicable to 1.28Mcps TDD only	GLOBAL	reject
>>>>Time Slot LCR	M		9.2.3.12a		–	
>>>>Midamble Shift LCR	O		9.2.3.4C		–	
>>>>TFCI Presence	O		9.2.1.55		–	
>>>>UL Code Information LCR	O		TDD UL Code Informatio n LCR 9.2.3.10B		–	
>>>>PLCCH Information	O		9.2.3.17		YES	Reject
>>>UL Timeslot Information 7.68Mcps		*0..<maxno OfTS>*		Applicable to 7.68Mcps TDD only	GLOBAL	reject
>>>>Time Slot	M		9.2.1.56		–	

>>>>Midamble Shift And Burst Type 7.68Mcps	O		9.2.3.23		–	
>>>>TFCI Presence	O		9.2.1.55		–	
>>>>UL Code Information 7.68Mcps	O		TDD UL Code Information 9.2.3.27		–	
>DL CCTrCH Information		*0..<maxno ofCCTrC Hs>*			GLOBAL	reject
>>CCTrCH ID	M		9.2.3.2		–	
>>DL DPCH Information		*1*			YES	notify
>>>Repetition Period	O		9.2.3.7		–	
>>>Repetition Length	O		9.2.3.6		–	
>>>TDD DPCH Offset	O		9.2.3.8A		–	
>>>DL Timeslot Information		*0..<maxno OfTS>*		Applicable to 3.84Mcps TDD only	–	
>>>>Time Slot	M		9.2.1.56		–	
>>>>Midamble Shift And Burst Type	O		9.2.3.4		–	
>>>>TFCI Presence	O		9.2.1.55		–	
>>>>DL Code Information	O		TDD DL Code Information 9.2.3.8C		–	
>>>DL Timeslot Information LCR		*0..<maxno OfTSLCR >*		Applicable to 1.28Mcps TDD only	GLOBAL	reject
>>>>Time Slot LCR	M		9.2.3.12a		–	
>>>>Midamble Shift LCR	O		9.2.3.4C		–	
>>>>TFCI Presence	O		9.2.1.55		–	
>>>>DL Code Information LCR	O		TDD DL Code Information LCR 9.2.3.8D		–	
>>>DL Timeslot		*0..<maxno*		Applicable	GLOBAL	reject

Information 7.68Mcps		*OfTS>*		to 7.68Mcps TDD only		
>>>>Time Slot	M		9.2.1.56		–	
>>>>Midamble Shift And Burst Type 7.68Mcps	O		9.2.3.23		–	
>>>>TFCI Presence	O		9.2.1.55		–	
>>>>DL Code Information 7.68Mcps	O		TDD DL Code Information 7.68Mcps 9.2.3.29		–	
>HS-PDSCH Timeslot Specific Information		0..<maxnoofDLts>		Applicable to 3.84Mcps TDD only.	GLOBAL	reject
>>Time Slot	M		9.2.1.56		–	
>>Midamble Shift And Burst Type	M		9.2.3.4		–	
>HS-PDSCH Timeslot Specific Information LCR		0..<maxnoofDLtsLCR>		Applicable to 1.28Mcps TDD only	GLOBAL	reject
>>Time Slot LCR	M		9.2.3.12a		–	
>>Midamble Shift LCR	M		9.2.3.4C		–	
>HS-PDSCH Timeslot Specific Information 7.68Mcps		*0..<maxnoofDLts>*		Applicable to 7.68Mcps TDD only.	GLOBAL	reject
>>Time Slot	M		9.2.1.56		–	
>>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.23		–	
>UARFCN	O		9.2.1.66	Applicable to 1.28Mcps TDD only.	YES	ignore

Range bound	Explanation
maxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.
maxnoofTS	Maximum number of Timeslots for a UE for 3.84Mcps TDD or 7.68Mcps TDD.
maxnoofTSLCR	Maximum number of Timeslots for a UE for 1.28Mcps TDD.
maxnoofDLts	Maximum number of downlink time slots per Radio Link for 3.84Mcps TDD or 7.68Mcps TDD.
maxnoofDLtsLCR	Maximum number of Downlink time slots per Radio Link for

	1.28Mcps TDD.

9.1.22 PHYSICAL CHANNEL RECONFIGURATION COMMAND

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
CFN	M		9.2.1.9		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore

9.1.23 PHYSICAL CHANNEL RECONFIGURATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
Cause	M		9.2.1.5		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore

9.1.24 UPLINK SIGNALLING TRANSFER INDICATION

9.1.24.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
UC-ID	M		9.2.1.71		YES	ignore
SAI	M		9.2.1.52		YES	ignore
Cell GAI	O		9.2.1.5A		YES	ignore
C-RNTI	M		9.2.1.14		YES	ignore
S-RNTI	M		9.2.1.53		YES	ignore
D-RNTI	O		9.2.1.24		YES	ignore
Propagation Delay	M		9.2.2.33		YES	ignore
STTD Support Indicator	M		9.2.2.45		YES	ignore
Closed Loop Mode1 Support Indicator	M		9.2.2.2		YES	ignore

L3 Information	M		9.2.1.32		YES	ignore
CN PS Domain Identifier	O		9.2.1.12		YES	ignore
CN CS Domain Identifier	O		9.2.1.11		YES	ignore
URA Information	O		9.2.1.70B		YES	ignore
Cell GA Additional Shapes	O		9.2.1.5B		YES	ignore
DPC Mode Change Support Indicator	O		9.2.2.56		YES	ignore
Common Transport Channel Resources Initialisation Not Required	O		9.2.1.12F		YES	Ignore
Cell Capability Container FDD	O		9.2.2.D		YES	ignore
SNA Information	O		9.2.1.52Ca		YES	ignore
Cell Portion ID	O		9.2.2.E		YES	ignore
Active MBMS Bearer Service List		*0..<max noofActiveMBMS>*			GLOBAL	ignore
>TMGI	M		9.2.1.80		–	
>Transmission Mode	M		9.2.1.81		–	
Inter-frequency Cell List		*0..<max CellsMeas>*			GLOBAL	ignore
>DL UARFCN	M		UARFCN 9.2.1.66		–	
>UL UARFCN	O		UARFCN 9.2.1.66		–	
>Primary Scrambling Code	M		9.2.1.45		–	
Extended Propagation Delay	O		9.2.2.33a		YES	ignore
HS-DSCH-RNTI	O		9.2.1.30P		YES	ignore
Multiple PLMN List	O		9.2.1.117		YES	ignore
Max UE DTX Cycle	C-DTX-DRXCapability		9.2.2.87		YES	ignore

Condition	Explanation
DTX-DRXCapability	The IE shall be present if the *Continuous Packet Connectivity DTX-DRX Support Indicator* IE in *Cell Capability Container FDD* IE is set to 1.

Range bound	Explanation
maxnoofActiveMBMS	Maximum number of MBMS bearer services that are active in parallel.
maxCellsMeas	Maximum number of inter-frequency cells measured by a UE.

9.1.24.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
UC-ID	M		9.2.1.71		YES	ignore
SAI	M		9.2.1.52		YES	ignore
Cell GAI	O		9.2.1.5A		YES	Ignore
C-RNTI	M		9.2.1.14		YES	ignore
S-RNTI	M		9.2.1.53		YES	ignore
D-RNTI	O		9.2.1.24		YES	ignore
Rx Timing Deviation	M		9.2.3.7A		YES	ignore
L3 Information	M		9.2.1.32		YES	ignore
CN PS Domain Identifier	O		9.2.1.12		YES	ignore
CN CS Domain Identifier	O		9.2.1.11		YES	ignore
URA Information	O		9.2.1.70B		YES	ignore
Cell GA Additional Shapes	O		9.2.1.5B		YES	ignore
Common Transport Channel Resources Initialisation Not Required	O		9.2.1.12F		YES	ignore
Cell Capability Container TDD	O		9.2.3.1a	Applicable to 3.84Mcps TDD only	YES	ignore
Cell Capability Container TDD LCR	O		9.2.3.1b	Applicable to 1.28Mcps TDD only	YES	ignore
SNA Information	O		9.2.1.52Ca		YES	ignore
Active MBMS Bearer Service List		*0..<max noofActi veMBMS >*			GLOBAL	ignore
>TMGI	M		9.2.1.80		–	
>Transmission Mode	M		9.2.1.81		–	
Cell Capability Container	O		9.2.3.31	Applicable to 7.68Mcps	YES	ignore

7.68Mcps TDD				TDD only		
Rx Timing Deviation 7.68Mcps	O		9.2.3.30	Applicable to 7.68Mcps TDD only	YES	ignore
Rx Timing Deviation 3.84Mcps Extended	O		9.2.3.35	Applicable to 3.84Mcps TDD only	YES	ignore
Multiple PLMN List	O		9.2.1.117		YES	ignore

Range bound	Explanation
maxnoofActiveMBMS	Maximum number of MBMS bearer services that are active in parallel.

9.1.24A GERAN UPLINK SIGNALLING TRANSFER INDICATION

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
UC-ID	M		9.2.1.71	UC-ID may be a GERAN cell identifier.	YES	ignore
SAI	M		9.2.1.52		YES	ignore
S-RNTI	M		9.2.1.53		YES	ignore
D-RNTI	O		9.2.1.24		YES	ignore
L3 Information	M		9.2.1.32		YES	ignore
CN PS Domain Identifier	O		9.2.1.12		YES	ignore
CN CS Domain Identifier	O		9.2.1.11		YES	ignore
URA Information	O		9.2.1.70B	URA information may be GRA information	YES	ignore

9.1.25 DOWNLINK SIGNALLING TRANSFER REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
C-ID	M		9.2.1.6	May be a GERAN cell	YES	ignore

			identifier			
D-RNTI	M		9.2.1.24		YES	ignore
L3 Information	M		9.2.1.32		YES	ignore
D-RNTI Release Indication	M		9.2.1.25		YES	ignore
URA-ID	O		9.2.1.70		YES	ignore
MBMS Bearer Service List		*0..<maxno ofMBMS>*			GLOBAL	ignore
>TMGI	M		9.2.1.80		–	
Old URA-ID	O		URA-ID 9.2.1.70		YES	ignore
SRNC-ID	C-URA		RNC-ID 9.2.1.50	If the *Extended SRNC-ID* IE is included in the message, the *SRNC-ID* IE shall be ignored.	YES	ignore
Extended SRNC-ID	O		Extended RNC-ID 9.2.1.50a	The *Extended SRNC-ID* IE shall be used if the RNC identity has a value larger than 4095.	YES	reject
Enhanced PCH Capability	O		9.2.2.88	FDD only	YES	Ignore

Condition	Explanation
URA	The IE shall be present if the *URA-ID* IE or *Old URA-ID* IE is present.

Range bound	Explanation
maxnoofMBMS	Maximum number of MBMS bearer services that a UE can join.

9.1.26 RELOCATION COMMIT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
D-RNTI	O		9.2.1.24		YES	ignore

RANAP Relocation Information	O		9.2.1.47		YES	ignore

9.1.27   PAGING REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
CHOICE *Paging Area*	M				YES	ignore
>*URA*					–	
>>URA-ID	M		9.2.1.70	May be a GRA-ID.	–	
>*Cell*				UTRAN only	–	
>>C-ID	M		9.2.1.6		–	
SRNC-ID	M		RNC-ID 9.2.1.50	May be a BSC-ID. If the *Extended SRNC-ID* IE is included in the message, the *SRNC-ID* IE shall be ignored.	YES	ignore
S-RNTI	M		9.2.1.53		YES	ignore
IMSI	M		9.2.1.31		YES	ignore
DRX Cycle Length Coefficient	M		9.2.1.26		YES	ignore
CN Originated Page to Connected Mode UE		0..1			YES	ignore
>Paging Cause	M		9.2.1.41E		–	
>CN Domain Type	M		9.2.1.11A		–	
>Paging Record Type	M		9.2.1.41F		–	
Extended SRNC-ID	O		Extended RNC-ID 9.2.1.50a	The *Extended SRNC-ID* IE shall be used if the RNC identity has a value larger than	YES	reject

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
			4095.			
Enhanced PCH Capability	O		9.2.2.88	FDD only	YES	Ignore

9.1.28 DEDICATED MEASUREMENT INITIATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
Measurement ID	M		9.2.1.37		YES	reject
CHOICE *Dedicated Measurement Object Type*	M				YES	reject
>*RL*					–	
>>**RL Information**		*1..<maxnoofRLs>*			EACH	reject
>>>RL-ID	M		9.2.1.49		–	
>>>DPCH ID	O		9.2.3.3	TDD only	–	
>>>DPCH ID 7.68Mcps	O		9.2.3.34	7.68Mcps TDD only	–	
>>>**HS-SICH Information**		*0..<maxnoofHSSICHs>*		TDD only	GLOBAL	reject
>>>>HS-SICH ID	M		9.2.3.3ad		–	
>*RLS*				FDD only	–	
>>**RL Set Information**		*1..<maxnoofRLSets>*			EACH	reject
>>>RL-Set-ID	M		9.2.2.35		–	
>*ALL RL*			NULL		–	
>*ALL RLS*			NULL	FDD only	–	
Dedicated Measurement Type	M		9.2.1.18		YES	reject
Measurement Filter Coefficient	O		9.2.1.36		YES	reject
Report Characteristics	M		9.2.1.48		YES	reject
CFN reporting indicator	M		FN reporting indicator 9.2.1.28A		YES	reject
CFN	O		9.2.1.9		YES	reject

Partial Reporting Indicator	O		9.2.1.41Fa		YES	ignore
Measurement Recovery Behavior	O		9.2.1.38A		YES	ignore
Alternative Format Reporting Indicator	O		9.2.1.2D		YES	ignore

Range bound	Explanation
maxnoofRLs	Maximum number of individual RLs a measurement can be started on.
maxnoofRLSets	Maximum number of individual RL Sets a measurement can be started on.

9.1.29   DEDICATED MEASUREMENT INITIATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
Measurement ID	M		9.2.1.37		YES	ignore
CHOICE *Dedicated Measurement Object Type*	O			Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
>*RL* or *ALL RL*				See Note 1	–	
>>RL Information		*1..<maxnoofRLs>*			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>DPCH ID	O		9.2.3.3	TDD only	–	
>>>DPCH ID 7.68Mcps	O		9.2.3.34	7.68Mcps TDD only	–	
>>>Dedicated Measurement Value	M		9.2.1.19		–	
>>>CFN	O		9.2.1.9	Dedicated Measurement Time Reference	_	
>>>HS-SICH ID	O		9.2.3.3ad	TDD only	YES	reject
>>>Multiple Dedicated Measurement Value Information		*0..<maxnoofDPCHsPerRL-1>*		Applicable to 3.84Mcps TDD only	GLOBAL	ignore

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>>>>DPCH ID	M		9.2.3.3		–	
>>>>Dedicated Measurement Value	M		9.2.1.19		–	
>>>Multiple Dedicated Measurement Value Information LCR		*0..<maxno ofDPCHsL CRPerRL-1>*		Applicable to 1.28McpsT DD only	GLOBAL	ignore
>>>>DPCH ID	M		9.2.3.3		–	
>>>>Dedicated Measurement Value	M		9.2.1.19		–	
>>>Multiple HS-SICH Measurement Value Information		*0..<maxno ofHSSICHs -1>*		TDD only	GLOBAL	ignore
>>>>HS-SICH ID	M		9.2.3.3ad		–	
>>>>Dedicated Measurement Value	M		9.2.1.19		–	
>>>Multiple Dedicated Measurement Value Information 7.68Mcps		*0..<maxno ofDPCHs7 68PerRL-1>*		Applicable to 7.68Mcps TDD only	GLOBAL	ignore
>>>>DPCH ID 7.68Mcps	M		9.2.3.34		–	
>>>>Dedicated Measurement Value	M		9.2.1.19		–	
>*RLS* or *ALL RLS*				FDD only See Note 2	–	
>>RL Set Information		*1..<maxno ofRLSets>*			EACH	ignore
>>>RL Set ID	M		9.2.2.35		–	
>>>Dedicated Measurement Value	M		9.2.1.19		–	
>>>CFN	O		9.2.1.9	Dedicated Measuremen t Time Reference	–	
Criticality Diagnostics	O		9.2.1.13		YES	Ignore
Measurement Recovery Support Indicator	O		9.2.1.38C		YES	ignore

Range bound	Explanation
maxnoofRLs	Maximum number of individual RLs the measurement can be started on.
maxnoofRLSets	Maximum number of individual RL Sets the measurement can be started

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	on.
maxnoofDPCHsPerRL	Maximum number of DPCHs per RL a measurement can be started on for 3.84Mcps TDD
maxnoofDPCHsLCRPerRL	Maximum number of DPCHs per RL a measurement can be started on for 1.28Mcps TDD
maxnoofHSSICHs	Maximum number of HSSICHs per RL a measurement can be started on
maxnoofDPCHs768PerRL	Maximum number of DPCHs per RL a measurement can be started on for 7.68Mcps TDD

Note 1: This is a simplified representation of the ASN.1: there are two different choice tags "RL" and "ALL RL" in the ASN.1, each having exactly the same structure.

Note 2: This is a simplified representation of the ASN.1: there are two different choice tags "RLS" and "ALL RLS" in the ASN.1, each having exactly the same structure.

9.1.30   DEDICATED MEASUREMENT INITIATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
Measurement ID	M		9.2.1.37		YES	ignore
Cause	M		9.2.1.5		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore
CHOICE *Dedicated Measurement Object Type*	O			Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
>*RL* or *ALL RL*					–	
>>**Unsuccessful RL Information**		*1..<maxno ofRLs>*			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>Individual Cause	O		Cause 9.2.1.5		–	
>>**Successful RL Information**		*0..<maxno ofRLs-1>*			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>DPCH ID	O		9.2.3.3	TDD only	–	

>>>Dedicated Measurement Value	M		9.2.1.19		–	
>>>CFN	O		9.2.1.9	Dedicated Measurement Time Reference	–	
>>>HS-SICH ID	O		9.2.3.3ad	TDD only	YES	reject
>*RLS* or *ALL RLS*				FDD only	–	
>>**Unsuccessful RL Set Information**		*1..<maxno ofRLSets>*			EACH	ignore
>>>RL Set ID	M		9.2.2.35		–	
>>>Individual Cause	O		Cause 9.2.1.5		–	
>>**Successful RL Set Information**		*0..<maxno ofRLSets-1>*			EACH	ignore
>>>RL Set ID	M		9.2.2.35		–	
>>>Dedicated Measurement Value	M		9.2.1.19		–	
>>>CFN	O		9.2.1.9	Dedicated Measurement Time Reference	–	

Range bound	Explanation
maxnoofRLs	Maximum number of individual RLs the measurement can be started on.
maxnoofRLSets	Maximum number of individual RL Sets the measurement can be started on.

9.1.31 DEDICATED MEASUREMENT REPORT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
Measurement ID	M		9.2.1.37		YES	ignore
CHOICE *Dedicated Measurement Object Type*	M			Dedicated Measurement Object Type the measurement was initiated with	YES	ignore

>*RL* or *ALL RL*				See Note 1	–	
>>RL Information		*1..<maxnoofRLs>*			EACH	ignore
>>>RL-ID	M		9.2.1.49		–	
>>>DPCH ID	O		9.2.3.3	TDD only	–	
>>>DPCH ID 7.68Mcps	O		9.2.3.34	7.68Mcps TDD only	–	
>>>Dedicated Measurement Value Information	M		9.2.1.19A		–	
>>>HS-SICH ID	O		9.2.3.3ad	TDD only	YES	ignore
>*RLS* or *ALL RLS*				FDD only See Note 2	–	
>>RL Set Information		*1..<maxnoofRLSets>*			EACH	ignore
>>>RL Set ID	M		9.2.2.35		–	
>>>Dedicated Measurement Value Information	M		9.2.1.19A		–	
Measurement Recovery Reporting Indicator	O		9.2.1.38B		YES	ignore

Range bound	Explanation
maxnoofRLs	Maximum number of individual RLs the measurement can be started on.
maxnoofRLSets	Maximum number of individual RL Sets the measurement can be started on.

Note 1: This is a simplified representation of the ASN.1: there are two different choice tags "RL" and "ALL RL" in the ASN.1, each having exactly the same structure.

Note 2: This is a simplified representation of the ASN.1: there are two different choice tags "RLS" and "ALL RLS" in the ASN.1, each having exactly the same structure.

9.1.32 DEDICATED MEASUREMENT TERMINATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
Measurement ID	M		9.2.1.37		YES	ignore

9.1.33 DEDICATED MEASUREMENT FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
Measurement ID	M		9.2.1.37		YES	ignore
Cause	M		9.2.1.5		YES	ignore
CHOICE *Dedicated Measurement Object Type*	O			Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
>*RL* or *ALL RL*					–	
>>**Unsuccessful RL Information**		1..<*maxnoof RLs*>			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>Individual Cause	O		Cause 9.2.1.5		–	
>*RLS* or *ALL RLS*				FDD only	–	
>>**Unsuccessful RL Set Information**		1..<*maxnoof RLSets*>			EACH	ignore
>>>RL Set ID	M		9.2.2.35		–	
>>>Individual Cause	O		Cause 9.2.1.5		–	

Range bound	Explanation
maxnoofRLs	Maximum number of individual RLs the measurement can be started on.
maxnoofRLSets	Maximum number of individual RL Sets the measurement can be started on.

9.1.34 COMMON TRANSPORT CHANNEL RESOURCES RELEASE REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
D-RNTI	M		9.2.1.24		YES	ignore

9.1.35   COMMON TRANSPORT CHANNEL RESOURCES REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
D-RNTI	M		9.2.1.24		YES	reject
C-ID	O		9.2.1.6		YES	reject
Transport Bearer Request Indicator	M		9.2.1.61	Request a new transport bearer or to use an existing bearer for the user plane.	YES	reject
Transport Bearer ID	M		9.2.1.60	Indicates the Iur transport bearer to be used for the user plane.	YES	reject
Permanent NAS UE Identity	O		9.2.1.73		YES	ignore
Binding ID	O		9.2.1.3	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
Transport Layer Address	O		9.2.1.62	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
MBMS Bearer Service List		*0..<max noofMBMS>*			GLOBAL	notify
>TMGI	M		9.2.1. 80		–	
TNL QoS	O		9.2.1.56A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
Enhanced FACH Support Indicator	O		9.2.2.80	FDD only	YES	Ignore

ETSI

Range bound	Explanation
maxnoofMBMS	Maximum number of MBMS bearer services that a UE can join.

9.1.36 COMMON TRANSPORT CHANNEL RESOURCES RESPONSE

9.1.36.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
S-RNTI	M		9.2.1.53		YES	ignore
C-RNTI	O		9.2.1.14		YES	ignore
FACH Info for UE Selected S-CCPCH		*1*			YES	ignore
>FACH Flow Control Information	M		9.2.1.26C	If the *Enhanced FACH Information Response* IE is included in the message, the *FACH Flow Control Information* IE shall be ignored.	YES	ignore
Transport Layer Address	O		9.2.1.62		YES	ignore
Binding Identity	O		9.2.1.3		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore
C-ID	M		9.2.1.6		YES	ignore
Active MBMS Bearer Service List		*0..<maxnoofActiveMBMS>*			GLOBAL	ignore
>TMGI	M		9.2.1.80		–	
>Transmission Mode	M		9.2.1.81		–	
Enhanced FACH Information Response		*0.. 1*			YES	ignore
>Common HS-DSCH-RNTI Priority Queue Information for Enhanced FACH	M		Priority Queue Information for Enhanced FACH/PC		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
			H 9.2.2.82			
>Dedicated HS-DSCH-RNTI Priority Queue Information for Enhanced FACH	M		Priority Queue Information for Enhanced FACH/PCH 9.2.2.82		–	
>Priority Queue Information for Enhanced PCH	O		Priority Queue Information for Enhanced FACH/PCH 9.2.2.82		–	
>HS-DSCH Initial Capacity Allocation	M		9.2.1.30Na		–	
>HS-DSCH-RNTI	O		9.2.1.30P		–	

Range bound	Explanation
maxnoofActiveMBMS	Maximum number of MBMS bearer services that are active in parallel.

9.1.36.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
S-RNTI	M		9.2.1.53		YES	ignore
C-RNTI	O		9.2.1.14		YES	ignore
FACH Info for UE Selected S-CCPCHs		*1*			YES	ignore
>FACH Flow Control Information	M		9.2.1.26C		YES	ignore
Transport Layer Address	O		9.2.1.62		YES	ignore
Binding Identity	O		9.2.1.3		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore
C-ID	M		9.2.1.6		YES	ignore

Active MBMS Bearer Service List		0..<maxno ofActiveM BMS>			GLOBAL	ignore
>TMGI	M		9.2.1.80		–	
>Transmission Mode	M		9.2.1.81		–	

Range bound	Explanation
maxnoofActiveMBMS	Maximum number of MBMS bearer services that are active in parallel.

9.1.37   COMMON TRANSPORT CHANNEL RESOURCES FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
S-RNTI	M		9.2.1.53		YES	ignore
Cause	M		9.2.1.5		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore

9.1.38   COMPRESSED MODE COMMAND [FDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
Active Pattern Sequence Information	M		9.2.2.A		YES	ignore

9.1.39   ERROR INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
Cause	O		9.2.1.5		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore
S-RNTI	O		9.2.1.53		YES	ignore
D-RNTI	O		9.2.1.24		YES	ignore

ETSI

9.1.40 DL POWER TIMESLOT CONTROL REQUEST [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
DL Time Slot ISCP Info	O		9.2.3.2D	Mandatory for 3.84Mcps TDD and 7.68Mcps TDD, not applicable to 1.28Mcps TDD	YES	ignore
DL Time Slot ISCP Info LCR	O		9.2.3.2F	Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD or 7.68Mcps TDD	YES	ignore
Primary CCPCH RSCP	O		9.2.3.5		YES	ignore
Primary CCPCH RSCP Delta	O		9.2.3.5a		YES	ignore

9.1.41 RADIO LINK PREEMPTION REQUIRED INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
RL Information		*0..<maxno ofRLs>*			EACH	ignore
>RL ID	M		9.2.1.49		–	
>**E-DCH MAC-d Flow Specific Information**		0..<maxno ofEDCH MACdFlo ws>			EACH	ignore
>>E-DCH MAC-d Flow ID	M		9.2.1.91		–	
HS-DSCH MAC-d Flow Specific Information		*0..<maxno ofMACdFl*			EACH	ignore

			ows>			
>HS-DSCH MAC-d Flow ID	M		9.2.1.30O		–	

Range bound	Explanation
maxnoofRLs	Maximum number of radio links for one UE
maxnoofMACdFlows	Maximum number of HS-DSCH MAC-d flows
maxnoofEDCHMACdFlows	Maximum number of E-DCH MAC-d flows

9.1.42   RADIO LINK CONGESTION INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
Congestion Cause	O		9.2.1.79		YES	ignore
RL Information		*1..<maxnoofRLs>*			EACH	ignore
>RL ID	M		9.2.1.49		–	
>DCH Rate Information		*1..<maxnoofDCHs>*			EACH	ignore
>>DCH ID	M		9.2.1.16		–	
>>Allowed Rate Information	O		9.2.1.2A		–	
>E-DCH MAC-d Flow Specific Information		0..<maxnoofEDCHMACdFlows>			EACH	ignore
>>E-DCH MAC-d Flow ID	M		9.2.1.91		–	
>DCH Indicator For E-DCH-HSDPA Operation	<u>O</u>		<u>9.2.2.67</u>		<u>YES</u>	ignore

Range bound	Explanation
maxnoofRLs	Maximum number of Radio Links for one UE
maxnoofDCHs	Maximum number of DCHs for one UE.
maxnoofEDCHMACdFlows	Maximum number of E-DCH MAC-d flows

9.1.43   COMMON MEASUREMENT INITIATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
Measurement ID	M		9.2.1.37		YES	reject
CHOICE *Common Measurement Object Type*	M				YES	reject
>*Cell*					–	
>>Reference Cell Identifier	M		UTRAN Cell Identifier 9.2.1.71	May be a GERAN Cell Identifier	–	
>>Time Slot	O		9.2.1.56	3.84Mcps TDD and 7.68 Mcps TDD only	–	
>>Time Slot LCR	O		9.2.3.12a	1.28Mcps TDD only	–	
>>Neighbouring Cell Measurement Information		*0..<maxnoof MeasNCells>*		UTRAN only	–	
>>>CHOICE *Neighbouring Cell Measurement Information*					–	
>>>>*Neighbouring FDD Cell Measurement Information*				FDD only	–	
>>>>>Neighbouring FDD Cell Measurement Information	M		9.2.1.41G		–	
>>>>*Neighbouring TDD Cell Measurement Information*				3.84Mcps TDD only	–	
>>>>>Neighbouring TDD Cell Measurement Information	M		9.2.1.41H		–	
>>>>*Additional Neighbouring Cell*					–	

Measurement Information						
>>>>>*Neighbouring TDD Cell Measurement InformationLCR*				1.28Mcps TDD only	–	
>>>>>>Neighbouring TDD Cell Measurement Information LCR	M		9.2.1.41Dd		YES	reject
>>>>*Additional Neighbouring Cell Measurement Information 7.68Mcps*					–	
>>>>>*Neighbouring TDD Cell Measurement Information 7.68 Mcps*				7.68Mcps TDD only	–	
>>>>>>Neighbouring TDD Cell Measurement Information 7.68 Mcps	M		9.2.3.32		YES	reject
>>UARFCN	O		9.2.1.66	Applicable to 1.28Mcps TDD only.	YES	ignore
>>UpPCH Position LCR	O		9.2.3.56	Applicable to 1.28Mcps TDD only.	YES	ignore
Common Measurement Type	M		9.2.1.12C		YES	reject
Measurement Filter Coefficient	O		9.2.1.41	UTRAN only	YES	reject
Report Characteristics	M		9.2.1.48		YES	reject
SFN reporting indicator	M		FN reporting indicator 9.2.1.28A		YES	reject
SFN	O		9.2.1.52A	UTRAN only	YES	reject

Common Measurement Accuracy	O		9.2.1.12A	UTRAN only	YES	reject
Measurement Recovery Behavior	O		9.2.1.38A	UTRAN only	YES	ignore

Range bound	Explanation
maxnoofMeasNCell	Maximum number of neighbouring cells on which measurements can be performed.

9.1.44 COMMON MEASUREMENT INITIATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
Measurement ID	M		9.2.1.37		YES	ignore
CHOICE *Common Measurement Object Type*	O			Common Measurement Object Type that the measurement was initiated with.	YES	ignore
>*Cell*					–	
>>Common Measurement value	M		9.2.1.12D		–	
SFN	O		9.2.1.52A	Common Measurement Time Reference, UTRAN only.	YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore
Common Measurement Achieved Accuracy	O		Common Measurement Accuracy 9.2.1.12A	UTRAN only	YES	ignore
Measurement Recovery Support Indicator	O		9.2.1.38C	UTRAN only	YES	ignore

9.1.45   COMMON MEASUREMENT INITIATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
Measurement ID	M		9.2.1.37		YES	ignore
Cause	M		9.2.1.5		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore

9.1.46   COMMON MEASUREMENT REPORT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
Measurement ID	M		9.2.1.37		YES	ignore
CHOICE *Common Measurement Object Type*	M			Common Measurement Object Type that the measurement was initiated with.	YES	ignore
>*Cell*					–	
>>Common Measurement Value Information	M		9.2.1.12E		–	
SFN	O		9.2.1.52A	Common Measurement Time Reference, UTRAN only.	YES	ignore
Measurement Recovery Reporting Indicator	O		9.2.1.38B	UTRAN only	YES	ignore

9.1.47   COMMON MEASUREMENT TERMINATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	

Measurement ID	M		9.2.1.37		YES	ignore

9.1.48   COMMON MEASUREMENT FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
Measurement ID	M		9.2.1.37		YES	ignore
Cause	M		9.2.1.5		YES	ignore

9.1.49   INFORMATION EXCHANGE INITIATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
Information Exchange ID	M		9.2.1.31A		YES	reject
CHOICE *Information Exchange Object Type*	M				YES	reject
>*Cell*					–	
>>C-ID	M		9.2.1.6	May be a GERAN cell identifier	–	
>*Additional Information Exchange Object Types*					–	
>>*GSM Cell*					–	
>>>CGI	M		9.2.1.5D		–	
>>*MBMS Bearer Service*					–	
>>>**MBMS Bearer Service List**		*1..<maxno ofMBMS>*			GLOBAL	reject
>>>>TMGI	M		9.2.1.80		–	
Information Type	M		9.2.1.31E		YES	reject
Information Report Characteristics	M		9.2.1.31C		YES	reject

Range bound	Explanation
maxnoofMBMS	Maximum number of MBMS bearer services that a UE can join.

9.1.50   INFORMATION EXCHANGE INITIATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
Information Exchange ID	M		9.2.1.31A		YES	ignore
CHOICE *Information Exchange Object Type*	O				YES	ignore
>*Cell*					-	
>>Requested Data Value	M		9.2.1.48A		-	
>*Additional Information Exchange Object Types*					–	
>>*MBMS Bearer Service*					–	
>>>**MBMS Bearer Service List**		*1..<maxno ofMBMS>*			GLOBAL	ignore
>>>>TMGI	M		9.2.1.80		–	
>>>>Requested Data Value	M		9.2.1.48A		–	
Criticality Diagnostics	O		9.2.1.13		YES	ignore

Range bound	Explanation
maxnoofMBMS	Maximum number of MBMS bearer services that a UE can join.

9.1.51   INFORMATION EXCHANGE INITIATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
Information Exchange ID	M		9.2.1.31A		YES	ignore
Cause	M		9.2.1.5		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore

9.1.52   INFORMATION REPORT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
Information Exchange ID	M		9.2.1.31A		YES	ignore
CHOICE *Information Exchange Object Type*	M				YES	ignore
>*Cell*					–	
>>Requested Data Value Information	M		9.2.1.48B		–	

9.1.53   INFORMATION EXCHANGE TERMINATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
Information Exchange ID	M		9.2.1.31A		YES	ignore

9.1.54   INFORMATION EXCHANGE FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
Information Exchange ID	M		9.2.1.31A		YES	ignore
Cause	M		9.2.1.5		YES	ignore

9.1.55   RESET REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	

RNC-ID	M		9.2.1.50	Identity of the sending RNC. If the *Extended RNC-ID* IE is included in the message, the *RNC-ID* IE shall be ignored.	YES	reject
CHOICE *Reset Indicator*	M				YES	reject
>*Context*					–	
>>**Context Information**		*1..<maxResetContext>*			EACH	reject
>>>CHOICE *Context Type*	M				–	
>>>>*SRNTI*					–	
>>>>>S-RNTI	M		9.2.1.53		–	
>>>>*DRNTI*					–	
>>>>>D-RNTI	M		9.2.1.24		–	
>*All Contexts*			NULL		–	
>*Context Group*					–	
>>**Context Group Information**		*1..<maxResetContextGroups>*			EACH	reject
>>>S-RNTI Group	M		9.2.1.53a		–	

Extended RNC-ID	O		9.2.1.50a	Identity of the sending RNC. The *Extended RNC-ID* IE shall be used if the RNC identity has a value larger than 4095.	YES	reject

Range bound	Explanation
maxResetContext	Maximum number of contexts that can be reset by one RESET message.
maxResetContextGroups	Maximum number of context groups that can be reset by one RESET message.

9.1.56   RESET RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
RNC-ID	M		9.2.1.50	Identity of the sending RNC. If the *Extended RNC-ID* IE is included in the message, the *RNC-ID* IE shall be ignored.	YES	ignore

Criticality Diagnostics	O		9.2.1.13		YES	ignore
Extended RNC-ID	O		9.2.1.50a	Identity of the sending RNC. The *Extended RNC-ID* IE shall be used if the RNC identity has a value larger than 4095.	YES	reject

9.1.57 RADIO LINK ACTIVATION COMMAND

9.1.57.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Delayed activation Information		*1..<maxnoofRLs>*			EACH	ignore
>RL ID	M		9.2.1.49		–	
>Delayed Activation Update	M		9.2.1.19Ab		–	

9.1.57.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Delayed activation Information		*1..<maxnoofRLs>*			EACH	ignore
>RL ID	M		9.2.1.49		–	
>Delayed Activation Update	M		9.2.1.19Ab		–	

9.1.58   RADIO LINK PARAMETER UPDATE INDICATION

9.1.58.1   FDD Message

IE/Group name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
HS-DSCH FDD Update Information	O		9.2.2.19c		YES	ignore
RL Information		*0..<max noofRLs>*			EACH	ignore
>RL Id	M		9.2.1.49		–	
>Phase Reference Update Indicator	O		9.2.2.27B		–	
E-DCH FDD Update Information	O		9.2.2.19e		YES	ignore

9.1.58.2   TDD Message

IE/Group name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
HS-DSCH TDD Update Information	O		9.2.3.3ac		YES	ignore

9.1.59   UE MEASUREMENT INITIATION REQUEST [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
Allowed Queing Time	O		9.2.1.2		YES	reject
Measurement ID	M		9.2.1.37		YES	reject
UE Measurement Type	M		9.2.3.13Fh		YES	reject
UE Measurement Timeslot information HCR	O		9.2.3.13Fe	3.84 Mcps TDD only	YES	reject
UE Measurement Timeslot information LCR	O		9.2.3.13Ff	1.28 Mcps TDD only	YES	reject

UE Measurement Timeslot information 7.68Mcps	O		9.2.3.33	7.68 Mcps TDD only	YES	reject
Measurement Filter Coefficient	O		9.2.1.36		YES	reject
UE Measurement Report Characteristics	M		9.2.3.13Fc		YES	reject
UE Measurement Parameter Modification Allowed	O		9.2.3.13Fb		YES	reject

9.1.60 UE MEASUREMENT INITIATION RESPONSE [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
Measurement ID	M		9.2.1.37		YES	ignore
Measurement Filter Coefficient	O		9.2.1.36		YES	reject
UE Measurement Report Characteristics	O		9.2.3.13Fc		YES	reject
Criticality Diagnostics	O		9.2.1.13		YES	ignore

9.1.61 UE MEASUREMENT INITIATION FAILURE [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
Measurement ID	M		9.2.1.37		YES	ignore
Cause	M		9.2.1.5		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore

9.1.62 UE MEASUREMENT REPORT [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
Measurement ID	M		9.2.1.37		YES	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
UE Measurement Value Information	M		9.2.3.13Fj		YES	ignore

9.1.63 UE MEASUREMENT TERMINATION REQUEST [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
Measurement ID	M		9.2.1.37		YES	ignore

9.1.64 UE MEASUREMENT FAILURE INDICATION [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
Measurement ID	M		9.2.1.37		YES	ignore
Cause	M		9.2.1.5		YES	ignore

9.1.65 IUR INVOKE TRACE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
D-RNTI	O		9.2.1.24		YES	ignore
Trace Reference	M		9.2.1.58c		YES	ignore
UE Identity	M		9.2.1.66A		YES	ignore
Trace Recording Session Reference	M		9.2.1.58b		YES	ignore
List Of Interfaces To Trace		*0..maxnoofInterfaces*			EACH	ignore
>Interface	M		ENUMERATED (Iub, Iur,…)		–	
Trace Depth	M		9.2.1.58a		YES	ignore

Range bound	Explanation
maxnoofInterfaces	Maximum of Interfaces to be traced.

9.1.66 IUR DEACTIVATE TRACE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
D-RNTI	O		9.2.1.24		YES	ignore
Trace Reference	M		9.2.1.58c		YES	ignore

9.1.67 MBMS ATTACH COMMAND

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
MBMS Bearer Service List		*1..<maxnoofMBMS>*			GLOBAL	ignore
>TMGI	M		9.2.1.80		–	
CHOICE *UE State*	O				YES	ignore
>*CELL_FACH/CELL_PCH*					–	
>>D-RNTI	M		9.2.1.24		–	
>*URA_PCH*					–	
>>SRNC-ID	M		RNC-ID 9.2.1.50	If the *Extended SRNC-ID* IE is included in the message, the *SRNC-ID* IE shall be ignored.	–	
>>URA-ID	M		9.2.1.70		–	
>>Extended SRNC-ID	O		Extended RNC-ID 9.2.1.50a	The *Extended SRNC-ID* IE shall be used if the RNC identity has a value larger than 4095.	YES	reject

Range bound	Explanation
maxnoofMBMS	Maximum number of MBMS bearer services that a UE can join.

9.1.68   MBMS DETACH COMMAND

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
MBMS Bearer Service List		*1..<maxnoofMBMS>*			GLOBAL	ignore
>TMGI	M		9.2.1.80		–	
CHOICE *UE State*	O				YES	ignore
>*CELL_FACH/CELL_PCH*					–	
>>D-RNTI	M		9.2.1.24		–	
>*URA_PCH*					–	
>>SRNC-ID	M		RNC-ID 9.2.1.50	If the *Extended SRNC-ID* IE is included in the message, the *SRNC-ID* IE shall be ignored.	–	
>>URA-ID	M		9.2.1.70		–	
>>Extended SRNC-ID	O		Extended RNC-ID 9.2.1.50a	The *Extended SRNC-ID* IE shall be used if the RNC identity has a value larger than 4095.	YES	reject

Range bound	Explanation
maxnoofMBMS	Maximum number of MBMS bearer services that a UE can join.

9.1.69   DIRECT INFORMATION TRANSFER

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
RNC-ID	M		9.2.1.50	ID of an RNC which initiates the procedure. If the *Extended RNC-ID* IE is included in the message, the *RNC-ID* IE shall be ignored.	YES	ignore
Provided Information	M		9.2.1.85		YES	ignore
Extended RNC-ID	O		9.2.1.50a	The *Extended RNC-ID* IE shall be used if the RNC identity has a value larger than 4095.	YES	reject

9.2 Information Element Functional Definition and Contents

9.2.0 General

Subclause 9.2 presents the RNSAP IE definitions in tabular format. The corresponding ASN.1 definition is presented in subclause 9.3. In case there is a contradiction between the tabular format in subclause 9.2 and the ASN.1 definition, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional elements, in which the tabular format shall take precedence.

When specifying information elements which are to be represented by bitstrings, if not otherwise specifically stated in the semantics description of the concerned IE or elsewhere, the following principle applies with regards to the ordering of bits:

- The first bit (leftmost bit) contains the most significant bit (MSB);

- The last bit (rightmost bit) contains the least significant bit (LSB);

- When importing bitstrings from other specifications, the first bit of the bitstring contains the first bit of the concerned information;

9.2.1 Common Parameters

This subclause contains parameters that are common to FDD and TDD.

9.2.1.1 Allocation/Retention Priority

This parameter indicates the priority level in the allocation and retention of transport channel resources in DRNS. DRNS may use the Allocation/Retention priority information of the transport channels composing the RL to prioritise requests for RL Setup/addition and reconfiguration. In similar way, DRNS may use the allocation/Retention priority

information of the transport channels composing the RL to prioritise which RL shall be set to failure, in case prioritisation is possible. See Annex A.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Priority Level	M		INTEGER(0 ..15)	This IE indicates the priority of the request. **Usage:** Value "0" means "Spare"; It shall be treated as a logical error if received. Values between 1 and 14 are ordered in decreasing order of priority, "1" being the highest and "14" the lowest. Value "15" means "No Priority".
Pre-emption Capability	M		ENUMERATED(shall not trigger pre-emption, may trigger pre-emption)	
Pre-emption Vulnerability	M		ENUMERATED(not pre-emptable, pre-emptable)	

9.2.1.2   Allowed Queuing Time

This parameter specifies the maximum queuing time that is allowed in the DRNS until the DRNS must start to execute the request.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Allowed Queuing Time			INTEGER(1 ..60)	Unit: Seconds

9.2.1.2A   Allowed Rate Information

The *Allowed Rate Information* IE indicates the TFI corresponding to the highest allowed bit rate for the uplink and/or the downlink of a DCH. The SRNC is allowed to use any rate being lower than or equal to the rate corresponding to the indicated TFI.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Allowed UL Rate	O		INTEGER(1 ..maxTFcount)	"1": TFI 0, "2": TFI 1, "3": TFI 2,

				…
Allowed DL Rate	O		INTEGER(1 ..maxTFcou nt)	"1": TFI 0, "2": TFI 1, "3": TFI 2, …

9.2.1.2B   Altitude and Direction

This IE contains a description of Altitude and Direction.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Direction of Altitude	M		ENUMERA TED(Height, Depth)	
Altitude	M		INTEGER($0..2^{15}-1$)	The relation between the value (N) and the altitude (a) in meters it describes is $N \le a < N+1$, except for $N=2^{15}-1$ for which the range is extended to include all grater values of (a).

9.2.1.2C   Antenna Co-location Indicator

The Antenna Co-location Indicator indicates whether the antenna of the serving and neighbouring cells are approximately co-located.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Antenna Co-location Indicator			ENUMERA TED(co- located,…)	

9.2.1.2D   Alternative Format Reporting Indicator

This IE indicates if DRNS may report a measurement using an alternative format.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Alternative Format Reporting Indicator			ENUMERA TED (Alternative format is allowed, …)	

9.2.1.3 Binding ID

The Binding ID is the identifier of a user data stream.

In case of transport bearer establishment with ALCAP [3][35], this IE contains the identifier that is allocated at the DRNS and that is unique for each transport bearer under establishment to/from the DRNS.

If the Transport Layer Address contains an IP address [33], this IE contains the UDP port [34] intended to be used for the user plane transport.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Binding ID			OCTET STRING (1..4,…)	If the Binding ID includes an UDP port, the UDP port is included in octet 1 and 2. The first octet of the UDP port field shall be included in the first octet of the Binding ID.

9.2.1.4 BLER

This Block Error Rate defines the target radio interface Transport Block Error Rate of the transport channel . BLER is used by the DRNS to determine the needed SIR targets, for admission control and power management reasons.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
BLER			INTEGER(-63..0)	Step 0.1. (Range –6.3…0). It is the Log10 of the BLER

9.2.1.4A Block STTD Indicator

Void.

9.2.1.4B Burst Mode Parameters

The *Burst Mode Parameters* IE provides all the relevant information in order to able IPDL in the Burst mode.

IE/Group name	Presence	Range	IE Type and Reference	Semantics Description
Burst Start	M		INTEGER(0..15)	See [10] and [22]
Burst Length	M		INTEGER(10..25)	See [10] and [22]
Burst freq	M		INTEGER(1..16)	See [10] and [22]

9.2.1.5 Cause

The purpose of the cause information element is to indicate the reason for a particular event for the whole protocol.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Cause Group*	M			

>*Radio Network Layer*				
>>Radio Network Layer Cause	M		ENUMERATED (Unknown C-ID, Cell not Available, Power Level not Supported, UL Scrambling Code Already in Use, DL Radio Resources not Available, UL Radio Resources not Available, Measurement not Supported For The Object, Combining Resources Not Available, Combining not Supported, Reconfiguration not Allowed, Requested Configuration not Supported, Synchronisation Failure, Requested Tx Diversity Mode not Supported, Measurement Temporarily not Available, Unspecified, Invalid CM Settings, Reconfiguration CFN not Elapsed, Number of DL Codes Not Supported, Dedicated Transport Channel Type not Supported, DL Shared Channel Type not Supported, UL Shared Channel Type not Supported, Common Transport Channel Type not Supported, UL Spreading Factor not Supported, DL Spreading Factor not Supported, CM not Supported, Transaction not Supported by Destination Node B, RL Already Activated/Allocated, ..., Number of UL Codes Not Supported, Cell reserved for operator use, DPC Mode Change not Supported, Information temporarily not available, Information Provision not supported for the object, Power Balancing status not compatible, Delayed Activation not Supported, RL Timing Adjustment Not Supported, Unknown RNTI, Measurement Repetition Rate not Compatible with Current Measurements, UE not Capable to Implement Measurement, F-DPCH not supported,	

			E-DCH not supported,	
			Continuous Packet Connectivity DTX-DRX operation not supported,	
			Continuous Packet Connectivity HS-SCCH less operation not supported,	
			MIMO not supported,	
			E-DCH TTI2ms not supported,	
			Continuous Packet Connectivity DTX-DRX operation not available, Continuous Packet Connectivity UE DTX Cycle not available,	
			MIMO not available,	
			SixteenQAM UL not supported, HS-DSCH MAC-d PDU Size Format not supported,	
			F-DPCH Slot Format operation not supported,	
			E-DPCCH Power Boosting not supported)	
>Transport Layer				
>>Transport Layer Cause	M		ENUMERATED (Transport Resource Unavailable, Unspecified, ...)	
>Protocol				
>>Protocol Cause	M		ENUMERATED (Transfer Syntax Error, Abstract Syntax Error (Reject), Abstract Syntax Error (Ignore and Notify), Message not Compatible with Receiver State, Semantic Error, Unspecified, Abstract Syntax Error (Falsely Constructed Message),...)	
>Misc				
>>Miscellaneous Cause	M		ENUMERATED (Control Processing Overload, Hardware Failure, O&M Intervention, Not enough User Plane Processing Resources, Unspecified,...)	

The meaning of the different cause values is described in the following table. In general, "not supported" cause values indicate that the concerned capability is missing. On the other hand, "not available" cause values indicate that the concerned capability is present, but insufficient resources were available to perform the requested action.

Radio Network Layer cause	Meaning
Cell not Available	The concerned cell is not available
Cell reserved for operator use	The concerned cell is reserved for operator use
Combining not Supported	The DRNS does not support the RL combining for the concerned cells

Combining Resources Not Available	The value of the received *Diversity Control Field* IE was set to "Must", but the DRNS cannot perform the requested combining
CM not Supported	The concerned cell(s) do not support Compressed Mode
Common Transport Channel Type not Supported	The concerned cell(s) do not support the RACH and/or FACH Common Transport Channel Type
Continuous Packet Connectivity DTX-DRX operation not available	CPC resources for DTX-DRX operation not available in the concerned cell(s).
Continuous Packet Connectivity DTX-DRX operation not Supported	The concerned cell(s) do not support the Continuous Packet Connectivity DTX-DRX operation
Continuous Packet Connectivity HS-SCCH less operation not Supported	The concerned cell(s) do not support the Continuous Packet Connectivity HS-SCCH less operation
Continuous Packet Connectivity UE DTX Cycle not available	CPC resources for the UE DTX Cycle not available in the concerned cell(s).
Dedicated Transport Channel Type not Supported	The concerned cell(s) do not support the Dedicated Transport Channel Type
Delayed Activation not Supported	The concerned cell(s) do not support delayed activation of RLs
DL Radio Resources not Available	The DRNS does not have sufficient DL radio resources available
DL SF not Supported	The concerned cell(s) do not support the requested DL SF
DL Shared Channel Type not Supported	The concerned cell(s) do not support the Downlink Shared Channel Type
DPC Mode Change not Supported	The concerned cells do not support the DPC mode changes
E-DCH not supported	The concerned cell(s) do not support E-DCH
E-DCH TTI2ms not supported	The concerned cell(s) do not support the E-DCH 2ms TTI operation
E-DPCCH Power Boosting not supported	The concerned cell(s) do not support the E-DPCCH Power Boosting.
F-DPCH not supported	The concerned cell(s) do not support the Fractional DPCH
F-DPCH Slot Format operation not supported	The concerned cell(s) do not support the F-DPCH Slot Format operation
HS-DSCH MAC-d PDU Size Format not supported	The concerned cell(s) do not support the selected HS-DSCH MAC-d PDU Size Format
Information Provision not supported for the object	The RNS doesn't support provision of the requested information for the concerned object types
Information temporarily not available	The RNS can temporarily not provide the requested information
Invalid CM Settings	The concerned cell(s) consider the requested Compressed Mode settings invalid
Measurement not Supported For The Object	At least one of the concerned cell(s) does not support the requested measurement on the concerned object type
Measurement Repetition Rate not Compatible with Current Measurements	The requested parameters for a forwarded UE measurement are not compatible with the current measurement schedule in the SRNC.
Measurement Temporarily not	The DRNS can temporarily not provide the requested measurement value

Available	
MIMO not available	MIMO resources not available in the concerned cell(s).
MIMO not supported	The concerned cell(s) do not support the MIMO operation
Number of DL Codes not Supported	The concerned cell(s) do not support the requested number of DL codes
Number of UL Codes not Supported	The concerned cell(s) do not support the requested number of UL codes
Power Level not Supported	A DL power level was requested which the concerned cell(s) do not support
Power Balancing status not compatible	The power balancing status in the SRNC is not compatible with that of the DRNC.
RL Timing Adjustment not Supported	The concerned cell(s) do not support adjustments of the RL timing
Reconfiguration CFN not Elapsed	The requested action cannot be performed due to that a COMMIT message was received previously, but the concerned CFN has not yet elapsed
Reconfiguration not Allowed	The SRNC does currently not allow the requested reconfiguration
Requested Configuration not Supported	The concerned cell(s) do not support the requested configuration i.e. power levels, Transport Formats, physical channel parameters,…..
Requested Tx Diversity mode not Supported	The concerned cell(s) do not support the requested transmit diversity mode
RL Already Activated/ Allocated	The DRNS has already allocated an RL with the requested RL ID for this UE Context
Synchronisation Failure	Loss of UL Uu synchronisation
SixteenQAM UL not Supported	The concerned cell(s) do not support the 16 QAM UL
Transaction not Supported by Destination Node B	The requested action cannot be performed due to lack of support of the corresponding action in the destination Node B
UE not Capable to Implement Measurement	The UE is not capable to initiate/report a requested measurement due to its current state or capabilities.
UL Radio Resources not Available	The DRNS does not have sufficient UL radio resources available
UL Scrambling Code Already in Use	The concerned UL scrambling code is already in use for another UE
UL SF not Supported	The concerned cell(s) do not support the requested minimum UL SF
UL Shared Channel Type not Supported	The concerned cell(s) do not support the Uplink Shared Channel Type
Unknown C-ID	The DRNS is not aware of a cell with the provided C-ID
Unknown RNTI	The SRNC or DRNC is not aware of a UE indicated with the provided RNTI
Unspecified	Sent when none of the above cause values applies but still the cause is Radio Network Layer related

Transport Network Layer cause	Meaning
Transport resource unavailable	The required transport resources are not available
Unspecified	Sent when none of the above cause values applies but still the cause is Transport Network Layer related

Protocol cause	Meaning
Abstract Syntax Error (Reject)	The received message included an abstract syntax error and the concerned criticality indicated "reject" (see subclause 10.3)
Abstract Syntax Error (Ignore and Notify)	The received message included an abstract syntax error and the concerned criticality indicated "ignore and notify" (see subclause 10.3)
Abstract syntax error (falsely constructed message)	The received message contained IEs or IE groups in wrong order or with too many occurrences (see subclause 10.3)
Message not Compatible with Receiver State	The received message was not compatible with the receiver state (see subclause 10.4)
Semantic Error	The received message included a semantic error (see subclause 10.4)
Transfer Syntax Error	The received message included a transfer syntax error (see subclause 10.2)
Unspecified	Sent when none of the above cause values applies but still the cause is Protocol related

Miscellaneous cause	Meaning
Control Processing Overload	DRNS control processing overload
Hardware Failure	DRNS hardware failure
Not enough User Plane Processing Resources	DRNS has insufficient user plane processing resources available
O&M Intervention	Operation and Maintenance intervention related to DRNS equipment
Unspecified	Sent when none of the above cause values applies and the cause is not related to any of the categories Radio Network Layer, Transport Network Layer or Protocol.

9.2.1.5A   Cell Geographical Area Identity (Cell GAI)

The Cell Geographical Area is used to identify the geographical area of a cell. The area is represented as a polygon. See ref. [25].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell GAI Geographical Co-ordinates		*1 .. <maxnoofPoints>*		
>Latitude Sign	M		ENUMERATED(North, South)	
>Degrees of Latitude	M		INTEGER($0..2^{23}$-1)	The IE value (N) is derived by this formula: $N \leq 2^{23} X /90 < N+1$ X being the latitude in degree (0°.. 90°)
>Degrees of Longitude	M		INTEGER($-2^{23}..2^{23}$-1)	The IE value (N) is derived by this formula: $N \leq 2^{24} X /360 < N+1$ X being the longitude in degree (-180°..+180°)

Range bound	Explanation
maxnoofPoints	Maximum no. of points in polygon.

9.2.1.5B Cell Geographical Area Additional Shapes (Cell GAI Additional Shapes)

This IE is used to provide several descriptions of the geographical area of a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Cell GAI Additional Shapes*				
>*GA Point With Uncertainty*				
>>GA Point With Uncertainty	M		9.2.1.30A	Ellipsoid point with uncertainty circle
>*GA Ellipsoid point with uncertainty Ellipse*				
>>GA Ellipsoid point with uncertainty Ellipse	M		9.2.1.30B	Ellipsoid point with uncertainty Ellipse
>*GA Ellipsoid point with altitude*				
>>GA Ellipsoid point with altitude	M		9.2.1.30C	Ellipsoid point with altitude
>*GA Ellipsoid point with altitude and uncertainty Ellipsoid*				
>>GA Ellipsoid point with altitude and uncertainty Ellipsoid	M		9.2.1.30D	Ellipsoid point with altitude and uncertainty Ellipsoid
>*GA Ellipsoid Arc*				
>>GA Ellipsoid Arc	M		9.2.1.30E	Ellipsoid Arc

9.2.1.5C Cell Capacity Class Value

The *Cell Capacity Class Value* IE contains the capacity class for both the uplink and downlink. *Cell Capacity Class Value* IE is the value that classifies the cell capacity with regards to the other cells. *Cell Capacity Class Value* IE only indicates resources that are configured for traffic purposes.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uplink Cell Capacity Class Value	M		INTEGER(1..100,…)	Value 1 shall indicate the minimum uplink cell capacity, and 100 shall indicate the maximum uplink cell capacity. . There should be linear relation between

				uplink cell capacity and Uplink Cell Capacity Class Value.
Downlink Cell Capacity Class Value	M		INTEGER(1 ..100,…)	Value 1 shall indicate the minimum downlink cell capacity, and 100 shall indicate the maximum downlink cell capacity. There should be linear relation between downlink cell capacity and Downlink Cell Capacity Class Value.

9.2.1.5D   Cell Global Identifier (CGI)

The *Cell Global Identifier* IE contains the Cell Global Identity as defined in ref. [1].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
LAI		*1*		
>PLMN Identity	M		OCTET STRING (3)	- digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n -The PLMN Identity consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case of a 3 digit MNC).
>LAC	M		OCTET STRING (2)	0000 and FFFE not allowed
CI	M		OCTET STRING (2)	

9.2.1.6   Cell Identifier (C-ID)

The C-ID (Cell Identifier) is the identifier of a cell in one RNS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
C-ID			INTEGER	

				(0..65535)	

9.2.1.7 Cell Individual Offset

Cell individual offset is an offset that will be applied by UE to the measurement results for a Primary-CPICH[FDD]/ Primary-CCPCH[TDD] or for GSM Carrier RSSI according to [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Individual Offset			INTEGER (-20..+20)	-20 -> -10dB -19 -> -9.5dB … +20 -> +10dB

9.2.1.8 Cell Parameter ID

The Cell Parameter ID identifies unambiguously the [3.84 Mcps TDD and 7.68Mcps TDD - Code Groups, Scrambling Codes, Midambles and Toffset] [1.28 Mcps TDD - SYNC-DL and SYNC-UL sequences, the scrambling codes and the midamble codes] (see ref. [20]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Parameter ID			INTEGER(0 ..127,…)	

9.2.1.9 CFN

Connection Frame Number for the radio connection, see ref. [17].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CFN			INTEGER(0 .. 255)	

9.2.1.10 CFN Offset

Void

9.2.1.11 CN CS Domain Identifier

Identification of the CN node in the CS Domain.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PLMN Identity	M		OCTET STRING (3)	- digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001,

				- 1111 used as filler
				- bit 4 to 1 of octet n encoding digit 2n-1
				- bit 8 to 5 of octet n encoding digit 2n
				-The PLMN Identity consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case of a 3 digit MNC).
LAC	M		OCTET STRING (2)	0000 and FFFE not allowed

9.2.1.11A   CN Domain Type

Identifies the type of core network domain.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CN Domain Type			ENUMERATED(CS domain, PS domain, Don't care,…)	See in [16]

9.2.1.12   CN PS Domain Identifier

Identification of the CN Node in the PS Domain.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PLMN Identity	M		OCTET STRING (3)	- digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n -The PLMN Identity consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case

				of a 3 digit MNC).
LAC	M		OCTET STRING (2)	0000 and FFFE not allowed
RAC	M		OCTET STRING (1)	

9.2.1.12A Common Measurement Accuracy

The Common Measurement Accuracy IE indicates the accuracy of the common measurement.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Common Measurement Accuracy*	M			
>$T_{UTRAN-GPS}$ *Measurement Accuracy Class*				
>>$T_{UTRAN-GPS}$ Measurement Accuracy Class	M		$T_{UTRAN-GPS}$ Accuracy Class 9.2.1.59B	
>$T_{UTRAN-GANSS}$ *Measurement Accuracy Class*				
>>$T_{UTRAN-GANSS}$ Measurement Accuracy Class	M		$T_{UTRAN-GANSS}$ Accuracy Class 9.2.1.112	

9.2.1.12B Common Measurement Object Type

Void.

9.2.1.12C Common Measurement Type

The Common Measurement Type identifies which measurement that shall be performed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Measurement Type			ENUMERATED(UTRAN GPS Timing of Cell Frames for UE Positioning , SFN-SFN Observed Time Difference, load, transmitted carrier power, received total wide band	UL timeslot ISCP shall only be used by TDD. For measurements, which are requested on the Iur-g interface, only load, RT Load and NRT Load information are used. "UpPTS interference" is used by 1.28Mcps TDD only "UpPTS interference" means "UpPCH interference" in the whole 25.423, refer to [14]

				power, UL timeslot ISCP, …, RT Load, NRT Load Information, UpPTS interference, UTRAN GANSS Timing of Cell Frames for UE Positioning)	and [22].

9.2.1.12D   Common Measurement Value

The Common Measurement Value shall be the most recent value for this measurement, for which the reporting criteria were met.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE *Common Measurement Value*	M				–	
> *T*$_{UTRAN\text{-}GPS}$ *Measurement Value Information*				UTRAN only	–	
>>T$_{UTRAN\text{-}GPS}$ Measurement Value Information	M		9.2.1.59D		–	
> *SFN-SFN Measurement Value Information*				UTRAN only	–	
>>SFN-SFN Measurement Value Information	M		9.2.1.52C		–	
>*Load Value*					–	
>>Load Value	M		9.2.1.33A		–	
>*Transmitted Carrier Power Value*				UTRAN only	–	
>>Transmitted Carrier Power Value	M		Transmitted Carrier Power 9.2.1.59A		–	
>*Received Total Wide Band Power Value*				UTRAN only	–	
>>Received Total Wide Band Power Value	M		Received Total Wide Band Power 9.2.2.35A		–	
>*UL Timeslot ISCP*				TDD Only	–	

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Value					–	
>>UL Timeslot ISCP Value	M		UL Timeslot ISCP 9.2.3.13A		–	
>Additional Common Measurement Values					–	
>>RT Load Value					–	
>>>RT Load Value	M		9.2.1.50B		YES	ignore
>>NRT Load Information Value					–	
>>>NRT Load Information Value	M		9.2.1.41I		YES	ignore
>>UpPTS interference				1.28Mcps TDD Only	–	
>>>UpPTS interference Value	M		INTEGER (0..127,…)	According to mapping in [24]	YES	reject
>> T$_{UTRAN-GANSS}$ Measurement Value Information				UTRAN only	–	
>>>T$_{UTRAN-GANSS}$ Measurement Value Information	M		9.2.1.114		YES	reject

9.2.1.12E   Common Measurement Value Information

The *Common Measurement Value Information* IE provides information both on whether the Common Measurement Value is provided in the message or not and if provided also the Common Measurement Value itself.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Measurement Availability*	M			
>Measurement Available				
>>Common Measurement Value	M		9.2.1.12D	
>Measurement not Available			NULL	

9.2.1.12F   Common Transport Channel Resources Initialisation Not Required

If present, this IE indicates that as far as the DRNC is concerned, there is no need to initiate a Common Transport Channel Resources Initialisation procedure if the SRNC wants to allocate common transport channel resources in the new cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Transport Channel Resources Initialisation Not Required			ENUMERATED(Not Required)	

9.2.1.12G   Coverage Indicator

The Coverage Indicator indicates whether the serving and the neighbouring cell are overlapped, i.e. the cells have approximately same coverage area or whether the neighbouring cell covers or contained in the serving cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Coverage Indicator			ENUMERATED(Overlap, Covers, Contained in,…)	

9.2.1.13   Criticality Diagnostics

The *Criticality Diagnostics* IE is sent by an RNC when parts of a received message have not been comprehended or were missing, or if the message contained logical errors. When applicable, it contains information about which IEs that were not comprehended or were missing.

For further details on how to use the *Criticality Diagnostics* IE, see Annex C.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Procedure ID		0..1		Procedure ID is to be used if Criticality Diagnostics is part of Error Indication procedure, and not within the response message of the same procedure that caused the error	–	
>Procedure Code	M		INTEGER(0..255)		–	
>Ddmode	M		ENUMERATED (FDD, TDD, Common)	Common = common to FDD and TDD. Common Ddmode is also applicable for Iur-g procedures listed in section 7.	–	
Triggering Message	O		ENUMERATED (initiating message, successful outcome,	The Triggering Message is used only if the Criticality Diagnostics is part of	–	

			unsuccessful outcome, outcome)	Error Indication.		
Procedure Criticality	O		ENUMERATED (reject, ignore, notify)	This Procedure Criticality is used for reporting the Criticality of the Triggering message (Procedure).	–	
Transaction ID	O		Transaction ID		–	
Information Element Criticality Diagnostics		*0..<max noof errors>*			–	
>IE Criticality	M		ENUMERATED (reject, ignore, notify)	The IE Criticality is used for reporting the criticality of the triggering IE. The value "Ignore" shall never be used.	–	
>IE ID	M		INTEGER(0..65 535)	The IE ID of the not understood or missing IE as defined in the ASN.1 part of the specification.	–	
>Repetition Number	O		INTEGER(0..25 5)	The *Repetition Number* IE gives • in case of a not understood IE: The number of occurrences of the reported IE up to and including the not understood occurrence • in case of a missing IE: The number of occurrences up to but not including the missing occurrence. Note: All the counted occurrences of the reported IE must have the same topdown hierarchical message structure of IEs with assigned criticality above them.	–	
>Message Structure	O		9.2.1.39A	The *Message Structure* IE describes the structure in which	YES	ignore

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				the not understood or missing IE was detected. This IE is included if the not understood IE is not the top level of the message.		
>Type of Error	M		ENUMERATED (not understood, missing, …)		YES	ignore

Range bound	Explanation
maxnooferrors	Maximum number of IE errors allowed to be reported with a single message.

9.2.1.14   C-RNTI

C-RNTI (Cell RNTI) is the UE identifier allocated by the DRNS to be used over the radio interface. It is unique in the cell. One UE Context has one unique C-RNTI value allocated in the DRNS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
C-RNTI			INTEGER(0 ..65535)	

9.2.1.14A   CTFC

The CTFC is an integer number calculated in accordance with [16], subclause 14.10. Regarding the channel ordering, for all transport channels, 'TrCH1' corresponds to the transport channel having the lowest transport channel identity among all configured transport channels on this CCTrCH. 'TrCH2' corresponds to the transport channel having the next lowest transport channel identity, and so on.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *CTFC Format*				
>*2 bits long*				
>>CTFC value	M		INTEGER (0..3)	
>*4 bits long*				
>>CTFC value	M		INTEGER (0..15)	
>*6 bits long*				
>>CTFC value	M		INTEGER (0..63)	
>*8 bits long*				
>>CTFC value	M		INTEGER (0..255)	
>*12 bits long*				
>>CTFC value	M		INTEGER (0..4095)	

>16 bits long				
>>CTFC value	M		INTEGER (0..65535)	
>max nb bits long				
>>CTFC value	M		INTEGER (0..maxCTFC)	

Range Bound	Explanation
MaxCTFC	Maximum number of the CTFC value is calculated according to the following: $$\sum_{i=1}^{I} (L_i - 1)P_i$$ with the notation according to ref. [16]

9.2.1.15   DCH Combination Indicator

Void

9.2.1.16   DCH ID

The DCH ID is the identifier of an active dedicated transport channel. It is unique for each active DCH among the active DCHs simultaneously allocated for the same UE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DCH ID			INTEGER (0..255)	

9.2.1.16A   DCH Information Response

The *DCH Information* IE provides information for DCHs that have been established or modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DCH Information Response		*1..<maxno ofDCHs>*		Several DCHs belonging to the same set of coordinated DCHs may be included.	–	
>DCH ID	M		9.2.1.16		–	
>Binding ID	O		9.2.1.3		–	
>Transport Layer Address	O		9.2.1.62		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>Allowed Rate Information	O		9.2.1.2A		YES	ignore
>Transport Bearer Not Setup Indicator	O		9.2.2.4T	FDD Only	YES	Ignore

Range bound	Explanation
maxnoofDCHs	Maximum number of DCHs for one UE.

9.2.1.17   Dedicated Measurement Object Type

Void.

9.2.1.18   Dedicated Measurement Type

The Dedicated Measurement Type identifies the type of measurement that shall be performed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Dedicated Measurement Type			ENUMERATED(SIR, SIR Error, Transmitted Code Power, RSCP, Rx Timing Deviation, Round Trip Time, …, Rx Timing Deviation LCR, Angle Of Arrival LCR, HS-SICH Reception Quality, Rx Timing Deviation 768, Rx Timing Deviation 384 Extended)	RSCP and HS-SICH Receptions Quality are used by TDD only, Rx Timing Deviation and Rx Timing Deviation 384 Extended are used by 3.84 Mcps TDD only, Rx Timing Deviation LCR is used by 1.28 TDD only, Round Trip Time, SIR Error are used by FDD only. Angle Of Arrival LCR is used by 1.28Mcps TDD only. Rx Timing Deviation 768 is used by 7.68Mcps TDD only.

NOTE: For definitions of the measurement types refer to ref. [11] and [14].

9.2.1.19   Dedicated Measurement Value

The Dedicated Measurement Value shall be the most recent value for this measurement, for which the reporting criteria were met.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE *Dedicated Measurement Value*	M				–	
>*SIR Value*					–	
>>SIR Value	M		INTEGER (0..63)	According to mapping in ref. [23] and [24]	–	
>*SIR Error Value*				FDD Only	–	
>>SIR Error Value	M		INTEGER (0..125)	According to mapping in [23]	–	
>*Transmitted Code Power Value*					–	
>>Transmitted Code Power Value	M		INTEGER (0..127)	According to mapping in ref. [23] and [24] Values 0 to 9 and 123 to 127 shall not be used.	–	
>*RSCP*				TDD Only	–	
>>RSCP	M		INTEGER (0..127)	According to mapping in ref. [24]	–	
>*Rx Timing Deviation Value*				3.84Mcps TDD Only	–	
>>Rx Timing Deviation	M		INTEGER (0..8191)	According to mapping in [24]	–	
>*Round Trip Time*				FDD Only	–	
>>Round Trip Time	M		INTEGER (0..32767)	According to mapping in [23]	–	
>*Additional Dedicated Measurement Values*					–	
>>*Rx Timing Deviation Value LCR*				1.28Mcps TDD Only	YES	reject
>>>Rx Timing Deviation LCR	M		INTEGER (0..511)	According to mapping in [24]	–	
>>*Angle of Arrival Value LCR*				1.28Mcps TDD only	YES	reject

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IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>>AOA LCR	M		INTEGER (0..719)	According to mapping in [24]	–	
>>>AOA LCR Accuracy Class	M		ENUMERATED(A, B, C, D, E, F, G, H,...)	According to mapping in [24]	–	
>>*HS-SICH reception quality*				Applicable to TDD only	–	
>>>HS-SICH reception quality Value		*1*			YES	reject
>>>>Failed HS-SICH	M		INTEGER (0..20)	According to mapping in [24]	–	
>>>Missed HS-SICH	M		INTEGER (0..20)	According to mapping in [24]	–	
>>>Total HS-SICH	M		INTEGER (0..20)	According to mapping in [24]	–	
>>*Rx Timing Deviation Value 7.68Mcps*				7.68Mcps TDD Only	YES	reject
>>>Rx Timing Deviation 7.68Mcps	M		INTEGER (0..65535)	According to mapping in [24]	–	
>>*Rx Timing Deviation Value 3.84Mcps Extended*				3.84 Mcps TDD Only	YES	reject
>>>Rx Timing Deviation 3.84Mcps Extended	M		INTEGER (0..32767)	According to mapping in [24]	–	
>>Extended Round Trip Time				FDD Only	YES	ignore
>>>Extended Round Trip Time Value	M		INTEGER (32767..103041)	Continuation of intervals with step size as defined in [23].	–	

9.2.1.19A   Dedicated Measurement Value Information

The *Dedicated Measurement Value Information* IE provides information both on whether or not the Dedicated Measurement Value is provided in the message and if provided also the Dedicated Measurement Value itself.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality

CHOICE *Measurement Availability Indicator*	M				–	
>*Measurement Available*					–	
>>Dedicated Measurement Value	M		9.2.1.19		–	
>>CFN	O		9.2.1.9	Dedicated Measurement Time Reference	–	
>*Measurement not Available*			NULL		–	

9.2.1.19Aa   Delayed Activation

The *Delayed Activation* IE indicates that the activation of the DL power shall be delayed until an indicated CFN or until a separate activation indication is received.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Delayed Activation*	M			
> *CFN*				
>> Activation CFN	M		CFN 9.2.1.7	
> *Separate Indication*			NULL	

9.2.1.19Ab   Delayed Activation Update

The *Delayed Activation Update* IE indicates a change of the activation of the DL power for a specific RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Delayed Activation Update*	M			
> *Activate*				
>> CHOICE *Activation Type*	M			
>>> *Synchronised*				
>>>> Activation CFN	M		CFN 9.2.1.7	
>>> *Unsynchronised*			NULL	
>> Initial DL TX Power	M		DL Power 9.2.1.21	
>> First RLS Indicator	O		9.2.2.16A	FDD Only
>> Propagation Delay	O		9.2.2.35	FDD Only
>>Extended Propagation Delay	O		9.2.2.33a	FDD Only

> Deactivate				
>> CHOICE Deactivation type	M			
>>> Synchronised				
>>>> Deactivation CFN	M		CFN 9.2.1.7	
>>> Unsynchronised			NULL	

9.2.1.19B   DGPS Corrections

The DGPS Corrections IE contains DGPS information used by the UE Positioning A-GPS method. For further details on the meaning of parameters, see [31].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
GPS TOW	M		INTEGER(0 ..604799)	Time in seconds. This field indicates the baseline time for which the corrections are valid
Status/Health	M		ENUMERA TED (UDRE scale 1.0, UDRE scale 0.75, UDRE scale 0.5, UDRE scale 0.3, UDRE scale 0.1, no data, invalid data)	This field indicates the status of the differential corrections
Satellite DGPS Corrections Information		*1..<maxNoSat>*		
>SatID	M		SAT ID 9.2.1.50A	
>IODE	M		BIT STRING(8)	This IE is the sequence number for the ephemeris for the particular satellite. It can be used to determine if new ephemeris is used for calculating the corrections that are provided. This eight-bit IE is incremented for each new set of ephemeris for the satellite and may occupy the numerical range of [0, 239] during normal operations.
>UDRE	M		ENUMERA TED (UDRE	User Differential Range Error. This field provides an estimate of the uncertainty (1-σ) in the corrections for the particular satellite. The value

			≤1.0m, 1.0m < UDRE ≤ 4.0m, 4.0m < UDRE ≤ 8.0m, 8.0m < UDRE,...)	in this field shall be multiplied by the UDRE Scale Factor in the common Corrections Status/Health field to determine the final UDRE estimate for the particular satellite
>PRC	M		INTEGER(-2047..2047)	Scaling factor 0.32 meters
>Range Correction Rate	M		INTEGER(- 127.. 127)	Scaling factor 0.032 m/s

Range Bound	Explanation
maxNoSat	Maximum number of satellites for which information can be provided

9.2.1.19C   Discard Timer

The *Discard Timer* IE defines the time to live for a MAC-hs SDU starting from the instant of its arrival into an HSDPA Priority Queue. The DRNS shall use this information to discard out-of-date MAC-hs SDUs from the HSDPA Priority Queues.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Discard Timer			ENUMERATED (20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 300, 400, 500, 750, 1000, 1250, 1500, 1750, 2000, 2500, 3000, 3500, 4000, 4500, 5000, 7500, …)	Unit: ms

9.2.1.20   Diversity Control Field

The Diversity Control Field indicates if the current RL may, must or must not be combined with the already existing RLs.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Diversity Control Field			ENUMERATED(May, Must, Must not, …)	

9.2.1.21 Diversity Indication

Void.

9.2.1.21A DL Power

The *DL Power* IE indicates a power level relative to the [FDD - primary CPICH power] [TDD - PCCPCH power] configured in a cell. [FDD - If referred to a DPCH, it indicates the power of the transmitted DPDCH symbols. If referred to an F-DPCH, it indicates the Reference F-DPCH TX Power.] If Transmit Diversity is applied to a downlink physical channel, the *DL Power* IE indicates the power offset between the linear sum of the power for this downlink physical channel on all branches and the [FDD - primary CPICH power] [TDD - PCCPCH power] configured in a cell.

[TDD - If referred to a DPCH, it indicates the power of a spreading factor 16 code, the power for a spreading factor 1 code would be 12 dB higher.]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Power			INTEGER (-350..150)	Value = DL Power /10 Unit dB Range −35.0 .. +15.0 Step 0.1dB

9.2.1.22 Downlink SIR Target

Void

9.2.1.23 DPCH Constant Value

DPCH Constant Value is the power margin used by a UE to set the proper uplink power.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DPCH Constant Value			INTEGER (-10..10)	Unit dB Granularity 1 dB.

9.2.1.24 D-RNTI

The D-RNTI identifies the UE Context in the DRNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
D-RNTI			INTEGER(0 ..2^20 −1)	

9.2.1.25 D-RNTI Release Indication

The D-RNTI Release Indication indicates whether or not a DRNC shall release the D-RNTI allocated for a particular UE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
D-RNTI Release Indication			ENUMERATED(Release D-RNTI, not Release D-RNTI)	

9.2.1.26 DRX Cycle Length Coefficient

The DRX Cycle Length Coefficient is used as input for the formula to establish the paging occasions to be used in DRX.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DRX Cycle Length Coefficient			INTEGER (3..9)	Refers to 'k' in the formula as specified in ref. [15], Discontinuous Reception.

9.2.1.26A DSCH ID

Void.

9.2.1.26Aa DSCH Initial Window Size

Void.

9.2.1.26B DSCH Flow Control Information

Void.

9.2.1.26Ba DSCH-RNTI

Void.

9.2.1.26Bb Extended GSM Cell Individual Offset

Extended GSM Cell individual offset is an offset that will be applied by UE to the measurement results for GSM carrier RSSI according to [16]. It shall be used when the offset exceeds the range of values that can be indicated using the *Cell Individual Offset* IE (Subclause 9.2.1.7).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Extended GSM Cell Individual Offset			INTEGER (-50..-11 | 11..50)	Unit in dB. Step size is 1 dB.

9.2.1.26C FACH Flow Control Information

The *FACH Flow Control Information* IE provides flow control information for each scheduling priority class for the FACH FP over Iur.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
FACH Flow Control Information		*1..16*			–	
>FACH Scheduling Priority	M		Scheduling Priority Indicator 9.2.1.51A		–	
>MAC-c/sh SDU Length		*1..<maxNbMAC-c/shSDULength>*			–	
>>MAC-c/sh SDU Length	M		9.2.1.34		–	
>FACH Initial Window Size	M		9.2.1.27		–	

Range bound	Explanation
maxNbMAC-c/shSDULength	Maximum number of different MAC-c/sh SDU lengths.

9.2.1.27 FACH Initial Window Size

Indicates the initial number of MAC-c/sh SDUs that may be transmitted before an acknowledgement is received from the DRNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FACH Initial Window Size			INTEGER(0..255)	Number of frames (MAC-c/sh SDUs.) 255 = Unlimited number of FACH data frames.

9.2.1.28 FACH Priority Indicator

Void

9.2.1.28A FN Reporting Indicator

Frame Number reporting indicator.

Indicates if the SFN or CFN shall be included together with the reported measurement value.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FN reporting indicator			ENUMERATED(FN reporting required, FN reporting not	

			required)	

9.2.1.29 Frame Handling Priority

This parameter indicates the priority level to be used during the lifetime of the DCH, [TDD - DSCH] for temporary restriction of the allocated resources due overload reason.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Frame Handling Priority			INTEGER (0..15)	0=Lowest Priority, … 15=Highest Priority

9.2.1.30 Frame Offset

Frame Offset is the required offset between the dedicated channel downlink transmission frames (CFN, Connection Frame Number) and the broadcast channel frame offset (Cell Frame Number). The Frame Offset is used in the translation between Connection Frame Number (CFN) on Iub/Iur and least significant 8 bits of SFN (System Frame Number) on Uu. The Frame Offset is UE and cell specific.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Frame Offset			INTEGER (0..255)	Frames

9.2.1.30A GA Point with Uncertainty

This IE contains one of the possible descriptions of a Cell Geographical Area.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Geographical Coordinates	M		9.2.1.30F	
Uncertainty Code	M		INTEGER(0..127)	The uncertainty "r" is derived from the "uncertainty code" k by $r = 10 \times (1.1^k - 1)$

9.2.1.30B GA Ellipsoid Point with Uncertainty Ellipse

This IE contains one of the possible descriptions of a Cell Geographical Area.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Geographical Coordinates	M		9.2.1.30F	
Uncertainty Ellipse	M		9.2.1.68A	
Confidence	M		INTEGER(0..127)	

9.2.1.30C   GA Ellipsoid Point with Altitude

This IE contains one of the possible descriptions of a Cell Geographical Area.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Geographical Coordinates	M		9.2.1.30F	
Altitude and direction	M		9.2.1.2B	

9.2.1.30D   GA Ellipsoid Point with Altitude and Uncertainty Ellipsoid

This IE contains one of the possible descriptions of a Cell Geographical Area.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Geographical Coordinates	M		9.2.1.30F	
Altitude and direction	M		9.2.1.2B	
Uncertainty Ellipse	M		9.2.1.68A	
Uncertainty Altitude	M		INTEGER(0..127)	
Confidence	M		INTEGER(0..127)	

9.2.1.30E   GA Ellipsoid Arc

This IE contains one of the possible descriptions of a Cell Geographical Area.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Geographical Coordinates	M		9.2.1.30F	
Inner radius	M		INTEGER($0..2^{16}-1$)	The relation between the value (N) and the radius (r) in meters it describes is $5N \leq r < 5(N+1)$, except for $N=2^{16}-1$ for which the range is extended to include all grater values of (r).
Uncertainty radius	M		INTEGER(0..127)	The uncertainty "r" is derived from the "uncertainty code" k by $r = 10 \times (1.1^k - 1)$
Offset angle	M		INTEGER(0..179)	The relation between the value (N) and the angle (a) in degrees it describes is $2N \leq a < 2(N+1)$

| Included angle | M | | INTEGER(0..179) | The relation between the value (N) and the angle (a) in degrees it describes is $2N < a \leq 2(N+1)$ |
| Confidence | M | | INTEGER(0..127) | |

9.2.1.30F Geographical Coordinates

This IE contains the description of geographical coordinates.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Latitude Sign	M		ENUMERA TED(North, South)	
Degrees Of Latitude	M		INTEGER($0..2^{23}-1$)	The IE value (N) is derived by this formula: $N \leq 2^{23} X /90 < N+1$ X being the latitude in degree ($0°.. 90°$)
Degrees Of Longitude	M		INTEGER($-2^{23}..2^{23}-1$)	The IE value (N) is derived by this formula: $N \leq 2^{24} X /360 < N+1$ X being the longitude in degree ($-180°..+180°$)

9.2.1.30Fa GERAN Cell Capability

The *GERAN Cell Capability* IE is used to transfer the capabilities of a certain GERAN cell via the Iur interface.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
GERAN Cell Capability	M		BIT STRING (16)	Each bit indicates whether a cell supports a particular functionality or not. The value 1 of a bit indicates that the corresponding functionality is supported in a cell and value 0 indicates that the corresponding functionality is not supported in a cell. Each bit is defined as follows. The first bit: A/Gb mode. The second bit: Iu mode. Note that undefined bits are

				considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.

9.2.1.30Fb   GERAN Classmark

The *GERAN Classmark* IE is used to transfer the capabilities of a certain GERAN Iu-mode capable cell via the Iur interface.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
GERAN Classmark	M		OCTET STRING	Contents defined in [38]

9.2.1.30Fc   GERAN System Information

The *GERAN System Information* IE provides GERAN specific information.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
GERAN System Info		*1..<maxNrOfGERANSI>*		
>GERAN System Info Block	M		OCTET STRING (1..23)	The first octet contains octet 1 of the GERAN system information block, the second octet contains octet 2 of the GERAN system information block and so on.

Range bound	Explanation
maxNrOfGERANSI	Maximum number of GERAN SI blocks that can be provided as part of NACC information

9.2.1.30G   GPS Almanac

This IE provides the information regarding the GPS Almanac. For further details on the meaning of parameters, see [30].

IE/Group name	Presence	Range	IE Type and Reference	Semantics Description
WN_a	M		BIT STRING(8)	
Satellite Almanac Information	M	*1..<maxNoOfSatAlmanac>*		See Note 1.
>DataID	M		INTEGER (0..3)	
>SatID	M		SAT ID 9.2.1.50A	

>e	M		BIT STRING(16)	
>t_{oa}	M		BIT STRING(8)	
>δi	M		BIT STRING(16)	
>OMEGADOT	M		BIT STRING(16)	
>SV Health	M		BIT STRING(8)	
>$A^{1/2}$	M		BIT STRING(24)	
>$OMEGA_0$	M		BIT STRING(24)	
>M_0	M		BIT STRING(24)	
>ω	M		BIT STRING(24)	
>af_0	M		BIT STRING(11)	
>af_1	M		BIT STRING(11)	
SV Global Health	O		BIT STRING(364)	

Range Bound	Explanation
maxNoOfSatAlmanac	Maximum number of satellite almanacs for which information can be provided

Note 1: This information element is a simplified representation of the ASN.1 description. Repetitions 1 through maxNoSat and repetitions maxNoSat+1 through maxNoOfSatAlmanac are represented by separate ASN.1 structures with different criticality.

9.2.1.30H   GPS Ionospheric Model

This IE provides the information regarding the GPS Ionospheric Model. For further details on the meaning of parameters, see [30].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
α_0	M		BIT STRING(8)	
α_1	M		BIT STRING(8)	
α_2	M		BIT STRING(8)	

α₃	M		BIT STRING(8)	
β₀	M		BIT STRING(8)	
β₁	M		BIT STRING(8)	
β₂	M		BIT STRING(8)	
β₃	M		BIT STRING(8)	

9.2.1.30I   GPS Navigation Model and Time Recovery

This IE contains subframes 1 to 3 of the GPS navigation message. For further details on the meaning of parameters, see [30].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Navigation Message 1to3		*1..<maxNoSat>*		
>Transmission TOW	M		INTEGER0..1048575)	Time of the Week when the message is broadcast.
>SatID	M		SAT ID 9.2.1.50A	
>TLM Message	M		BIT STRING(14)	
>Tlm Revd (C)	M		BIT STRING(2)	
>HO-Word	M		BIT STRING(22)	
>WN	M		BIT STRING(10)	
>C/A or P on L2	M		BIT STRING(2)	
>User Range Accuracy Index	M		BIT STRING(4)	
>SV Health	M		BIT STRING(6)	
>IODC	M		BIT STRING(10)	
>L2 P Data Flag	M		BIT STRING(1)	
>SF 1 Reserved	M		BIT STRING(87	

			)	
>T_{GD}	M		BIT STRING(8)	
>t_{oc}	M		BIT STRING(16)	
>af_2	M		BIT STRING(8)	
>af_1	M		BIT STRING(16)	
>af_0	M		BIT STRING(22)	
>C_{rs}	M		BIT STRING(16)	
>Δn	M		BIT STRING(16)	
>M_0	M		BIT STRING(32)	
>C_{uc}	M		BIT STRING(16)	
>e	M		BIT STRING(32)	
>C_{us}	M		BIT STRING(16)	
>$(A)^{1/2}$	M		BIT STRING(32)	
>t_{oe}	M		BIT STRING(16)	
>Fit Interval Flag	M		BIT STRING(1)	
>AODO	M		BIT STRING(5)	
>C_{ic}	M		BIT STRING(16)	
>$OMEGA_0$	M		BIT STRING(32	

			)	
>C_{is}	M		BIT STRING(16)	
>i_0	M		BIT STRING(32)	
>C_{rc}	M		BIT STRING(16)	
>ω	M		BIT STRING(32)	
>OMEGAdot	M		BIT STRING(24)	
>Idot	M		BIT STRING(14)	
>Spare/zero fill	M		BIT STRING(20)	

Range Bound	Explanation
maxNoSat	Maximum number of satellites for which information can be provided

9.2.1.30J GPS Real-Time Integrity

This IE provides the information regarding the status of the GPS constellation. For further details on the meaning of parameters, see [30].

IE/Group name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Bad Satellites Presence*	M			
>*Bad Satellites*				
>>**Satellite Information**		*1..<max NoSat>*		
>>>BadSatID	M		SAT ID 9.2.1.50A	
>*No Bad Satellites*			NULL	

Range Bound	Explanation
MaxNoSat	Maximum number of satellites for which information can be provided

9.2.1.30K   GPS Receiver Geographical Position (GPS RX Pos)

The GPS Receiver Geographical Position is used to identify the geographical coordinates of a GPS receiver relevant for a certain Information Exchange Object.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Geographical Coordinates	M		9.2.1.30F	
Altitude and direction	M		9.2.1.2B	

9.2.1.30L   GPS UTC Model

This IE provides the information regarding the GPS UTC Model. For further details on the meaning of parameters, see [30].

IE/Group name	Presence	Range	IE Type and Reference	Semantics Description
A_1	M		BIT STRING(24)	
A_0	M		BIT STRING(32)	
t_{ot}	M		BIT STRING(8)	
Δt_{LS}	M		BIT STRING(8)	
WN_t	M		BIT STRING(8)	
WN_{LSF}	M		BIT STRING(8)	
DN	M		BIT STRING(8)	
Δt_{LSF}	M		BIT STRING(8)	

9.2.1.30M   Guaranteed Rate Information

The *Guaranteed Rate Information* IE indicates the TFI corresponding to the guaranteed bit rate for the uplink and/or the downlink of a DCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Guaranteed UL Rate	O		INTEGER(1..maxTFcount)	"1": TFI 0, "2": TFI 1, "3": TFI 2, …
Guaranteed DL Rate	O		INTEGER(1..maxTFcou	"1": TFI 0,

			nt)	"2": TFI 1,
				"3": TFI 2,
				…

9.2.1.30N   HCS Prio

The HCS Prio is the characteristics of the cell as defined in [15].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HCS Prio			INTEGER (0..7)	0=Lowest Priority, … 7=Highest Priority

9.2.1.30NA   HS-DSCH Information To Modify Unsynchronised

The *HS-DSCH Information To Modify Unsynchronised* IE is used for modification of HS-DSCH information in a UE Context with the Unsynchronised Radio Link Reconfiguration procedure.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-DSCH MAC-d Flow Specific Information		*0..<max noofMA CdFlow s>*			−	
>HS-DSCH MAC-d Flow ID	M		9.2.1.30O		−	
>Allocation/Retention Priority	O		9.2.1.1		−	
>Transport Bearer Request Indicator	M		9.2.1.61		−	
>Traffic Class	O		9.2.1.58A		−	
>Binding ID	O		9.2.1.3	Shall be ignored if bearer establishment with ALCAP.	−	
>Transport Layer Address	O		9.2.1.62	Shall be ignored if bearer establishment with ALCAP.	−	
>TNL QoS	O		9.2.1.56A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Priority Queue Information		*0..<maxnoofPrioQueues>*			–	
>Priority Queue ID	M		9.2.1.45A		–	
>Scheduling Priority Indicator	O		9.2.1.51A		–	
>Discard Timer	O		9.2.1.19C		–	
>MAC-hs Guaranteed Bit Rate	O		9.2.1.34Aa		–	
CQI Power Offset	O		9.2.2.24b	For FDD only	–	
ACK Power Offset	O		9.2.2.b	For FDD only	–	
NACK Power Offset	O		9.2.2.26a	For FDD only	–	
HS-SCCH Power Offset	O		9.2.2.19d	For FDD only	–	
TDD ACK NACK Power Offset	O		9.2.3.7I	For TDD only	–	
HARQ Preamble Mode	O		9.2.2.57	For FDD only	YES	ignore
MIMO Mode Indicator	O		9.2.2.77	For FDD only	YES	reject
Sixtyfour QAM Usage Allowed Indicator	O		9.2.2.79A	For FDD only	YES	ignore

9.2.1.30Na   HS-DSCH Initial Capacity Allocation

The *HS-DSCH Initial Capacity Allocation* IE provides flow control information for each scheduling priority class for the HS-DSCH FP over Iur.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-DSCH Initial Capacity Allocation		*1..< maxnoof PrioQueues>*			–	
>Scheduling Priority Indicator	M		9.2.1.51A		–	
>Maximum MAC-d PDU Size	M		MAC-d PDU Size 9.2.1.34A	Shall be ignored if *Maximum MAC-d PDU Size Extended* IE is present.	–	
>HS-DSCH Initial Window Size	M		9.2.1.30Nb		–	
>Maximum MAC-d PDU Size Extended	O		MAC PDU Size Extended 9.2.1.34D		YES	ignore

Range Bound	Explanation
maxnoofPrioQueuess	Maximum number of Priority Queues

9.2.1.30Nb   HS-DSCH Initial Window Size

Indicates the initial number of MAC-d PDUs (or octets in case *HS-DSCH MAC-d PDU Size Format* = "Flexible MAC-d PDU Size") that may be transmitted before new credits are received from the DRNC.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
HS-DSCH Initial Window Size			INTEGER (1..255)	Number of MAC-d PDUs If *HS-DSCH MAC-d PDU Size Format* = "Flexible MAC-d PDU Size" the credit shall be determined in octets: credit (in octets) = *Maximum MAC-d PDU Size extended * HS-DSCH Initial Window Size*

9.2.1.30O   HS-DSCH MAC-d Flow ID

HS-DSCH MAC-d Flow ID is the unique identifier for one MAC-d flow.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH MAC-d Flow ID			INTEGER (0..7)	

9.2.1.30OA   HS-DSCH MAC-d Flows Information

The *HS-DSCH MAC-d Flows Information* IE is used for the establishment of HS-DSCH MAC-d flows for a UE Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-DSCH MAC-d Flow Specific Information		*1..<max noofMA CdFlow s>*			−	
>HS-DSCH MAC-d Flow ID	M		9.2.1.30O		−	
>Allocation/Retention Priority	M		9.2.1.1		−	
>Traffic Class	M		9.2.1.58A		−	
>Binding ID	O		9.2.1.3	Shall be ignored if bearer establishment with ALCAP.	−	
>Transport Layer Address	O		9.2.1.62	Shall be ignored if bearer establishment	−	

				with ALCAP.		
>TNL QoS	O		9.2.1.56A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>TrCH Source Statistics Descriptor	O		9.2.1.65		YES	ignore
Priority Queue Information		*1..<maxn oofPrioQ ueues>*			−	
>Priority Queue ID	M		9.2.1.45A		−	
>Associated HS-DSCH MAC-d Flow	M		HS-DSCH MAC-d Flow ID 9.2.1.30O	The HS-DSCH MAC-d Flow ID shall be one of the flow IDs defined in the HS-DSCH MAC-d Flow Specific Information of this IE. Multiple Priority Queues can be associated with the same HS-DSCH MAC-d Flow ID.	−	
>Scheduling Priority Indicator	M		9.2.1.51A		−	
>T1	M		9.2.1.54A		−	
>Discard Timer	O		9.2.1.19C		−	
>MAC-hs Window Size	M		9.2.1.34C		−	
>MAC-hs Guaranteed Bit Rate	O		9.2.1.34Aa		−	
>MAC-d PDU Size Index		*1..<maxn oofMACd PDUinde xes>*			−	
>>SID	M		9.2.1.52D	Shall be ignored if *Maximum MAC-d PDU Size extended* IE is present.	−	
>>MAC-d PDU Size	M		9.2.1.34A	Shall be ignored if *Maximum MAC-d PDU*	−	

ETSI

			Size extended IE is present.		
>RLC Mode	M		9.2.1.48D	−	
>Maximum MAC-d PDU Size extended	O		MAC PDU Size Extended 9.2.1.34D	YES	reject

Range Bound	Explanation
maxnoofMACdFlows	Maximum number of HS-DSCH MAC-d flows
maxnoofPrioQueues	Maximum number of Priority Queues
maxnoofMACdPDUindexes	Maximum number of different MAC-d PDU SIDs

9.2.1.30OB   HS-DSCH MAC-d Flows To Delete

The *HS-DSCH MAC-d Flows To Delete* IE is used for the removal of HS-DSCH MAC-d flows from a UE Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH MAC-d Flows To Delete		*1..<maxnoofMACdFlows>*		
>HS-DSCH MAC-d Flow ID	M		9.2.1.30O	

Range Bound	Explanation
maxnoofMACdFlows	Maximum number of HS-DSCH MAC-d flows

9.2.1.30OC   HS-DSCH MAC-d PDU Size Format

The *HS-DSCH MAC-d PDU Size Format* IE provides information about the type of MAC-d PDU Size Format used for HS-DSCH. "Indexed MAC-d PDU Size" uses MAC-d PDU sizes based on *SID* IE and *MAC-d PDU Size* IE of *MAC-d PDU Size Index* IE. "Flexible MAC-d PDU Size" uses a flexible MAC-d PDU size with a maximum PDU size as defined by *Maximum MAC-d PDU Size extended* IE of *Priority Queue Information* IE. The actual MAC-d PDU size is determined as specified in [32] and [41].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH MAC-d PDU Size Format			ENUMERATED (Indexed MAC-d PDU Size, Flexible MAC-d PDU Size)	

9.2.1.30Oa   HS-DSCH Physical Layer Category

The *HS-DSCH Physical Layer Category* IE defines a set of UE radio access capabilities related to HSDPA, as defined in [42].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH Physical Layer Category			INTEGER (1..64,…)	

9.2.1.30P   HS-DSCH-RNTI

The HS-DSCH-RNTI is needed for the UE-specific CRC in HS-SCCH and HS-DSCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH-RNTI			INTEGER (0..65535)	

9.2.1.30Q　HS-DSCH Information To Modify

The *HS-DSCH Information To Modify* IE is used for modification of HS-DSCH information in a UE Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-DSCH MAC-d Flow Specific Information		*0..<maxnoofMACd Flows>*			−	
>HS-DSCH MAC-d Flow ID	M		9.2.1.30O		−	
>Allocation/Retention Priority	O		9.2.1.1		−	
>Transport Bearer Request Indicator	M		9.2.1.61		−	
>Traffic Class	O		9.2.1.58A		−	
>Binding ID	O		9.2.1.3	Shall be ignored if bearer establishment with ALCAP.	−	
>Transport Layer Address	O		9.2.1.62	Shall be ignored if bearer establishment with ALCAP.	−	
>TNL QoS	O		9.2.1.56A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
Priority Queue Information		*0..<maxnoofPrioQ ueues>*			−	
>CHOICE *Priority Queue*	M				−	
>>Add Priority Queue					−	
>>>Priority Queue ID	M		9.2.1.45A		−	
>>>Associated HS-DSCH MAC-d Flow	M		HS-DSCH MAC-d Flow ID 9.2.1.30O	Shall only refer to a HS-DSCH MAC-d flow already existing in the old configuration. Multiple Priority Queues can be associated with the same HS-DSCH	−	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
				MAC-d Flow ID.		
>>>Scheduling Priority Indicator	M		9.2.1.51A		−	
>>>T1	M		9.2.1.54A		−	
>>>Discard Timer	O		9.2.1.19C		−	
>>>MAC-hs Window Size	M		9.2.1.34C		−	
>>>MAC-hs Guaranteed Bit Rate	O		9.2.1.34Aa		−	
>>>MAC-d PDU Size Index		*1..<maxnoofMACdPDUindexes>*			−	
>>>>SID	M		9.2.1.52D	Shall be ignored if *Maximum MAC-d PDU Size extended* IE is present.	−	
>>>>MAC-d PDU Size	M		9.2.1.34A	Shall be ignored if *Maximum MAC-d PDU Size extended* IE is present.	−	
>>>RLC Mode	M		9.2.1.48D		−	
>>>Maximum MAC-d PDU Size extended	O		MAC PDU Size Extended 9.2.1.34D		YES	reject
>>*Modify Priority Queue*					−	
>>>Priority Queue ID	M		9.2.1.45A	Shall only refer to a Priority Queue already existing in the old configuration.	−	
>>>Scheduling Priority Indicator	O		9.2.1.51A		−	
>>>T1	O		9.2.1.54A		−	
>>>Discard Timer	O		9.2.1.19C		−	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>>MAC-hs Window Size	O		9.2.1.34C		−	
>>>MAC-hs Guaranteed Bit Rate	O		9.2.1.34Aa		−	
>>>MAC-d PDU Size Index		*0..<maxnoofMACdPDUindexes>*			−	
>>>>SID	M		9.2.1.52D	Shall be ignored if *Maximum MAC-d PDU Size extended* IE is present.	−	
>>>>MAC-d PDU Size	M		9.2.1.34A	Shall be ignored if *Maximum MAC-d PDU Size extended* IE is present.	−	
>>>Maximum MAC-d PDU Size extended	O		MAC PDU Size Extended 9.2.1.34D		YES	reject
>>Delete Priority Queue					−	
>>>Priority Queue ID	M		9.2.1.45A	Shall only refer to a Priority Queue already existing in the old configuration.	−	
MAC-hs Reordering Buffer Size for RLC-UM	O		9.2.1.34Ab		−	
CQI Feedback Cycle k	O		9.2.2.24a	For FDD only	−	
CQI Repetition Factor	O		9.2.2.24c	For FDD only	−	
ACK-NACK Repetition Factor	O		9.2.2.a	For FDD only	−	
CQI Power Offset	O		9.2.2.24b	For FDD only	−	
ACK Power Offset	O		9.2.2.b	For FDD only	−	
NACK Power Offset	O		9.2.2.26a	For FDD only	−	
HS-SCCH Power Offset	O		9.2.2.19d	For FDD only	−	
HS-SCCH Code Change Grant	O		9.2.1.30S		−	
TDD ACK NACK Power	O		9.2.3.7I	For TDD only	−	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Offset						
HARQ Preamble Mode	O		9.2.2.57	For FDD only	YES	ignore
HS-PDSCH Code Change Grant	O		9.2.1.30W	For FDD only	YES	ignore
MIMO Mode Indicator	O		9.2.2.77	For FDD only	YES	reject
HS-DSCH MAC-d PDU Size Format	O		9.2.1.30O C		YES	reject
Sixtyfour QAM Usage Allowed Indicator	O		9.2.2.79A	For FDD only	YES	ignore
UE Capabilities Information	O				YES	ignore
>HS-DSCH Physical Layer Category	M		9.2.1.30Oa		−	
>1.28 Mcps TDD uplink physical channel capability	O		9.2.3.10D	Applicable to 1.28Mcps TDD only	YES	ignore
>Number of Supported Carriers	O		ENUMER ATED (One-one carrier, One-three carrier, Three-three carrier, One-six carrier, Tree-six carrier, Six-six carrier, ...)	Applicable to 1.28Mcps TDD only This IE indicates the number of carrier that UE can support at the same time,where " One-three carrier" means the number of supported carrier is one for the uplink,and three for the downlink.	YES	reject
>Multi-carrier HS-DSCH Physical Layer Category	O		9.2.1.30Oa	Applicable to 1.28Mcps TDD only	YES	ignore

Range bound	Explanation
maxnoofMACdFlows	Maximum number of MAC-d flows.
maxnoofPrioQueues	Maximum number of Priority Queues.
maxnoofMACdPDUindexes	Maximum number of MAC-d PDU Size Indexes (SIDs).

9.2.1.30R   HS-SCCH Code Change Indicator

The HS-SCCH Code Change Indicator indicates whether the HS-SCCH Code change is needed or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
HS-SCCH Code Change Indicator			ENUMERATED (HS-SCCH Code Change needed)	

9.2.1.30S   HS-SCCH Code Change Grant

The *HS-SCCH Code Change Grant* IE indicates that modification of HS-SCCH Codes is granted.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-SCCH Code Change Grant			ENUMERATED(Change Granted)	

9.2.1.30T   IMEI

The IMEI is a permanent UE Equipment Identity, see ref. [1].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IMEI			OCTET STRING (SIZE (8))	- hexadecimal digits 0 to F, two hexadecimal digits per octet, - each hexadecimal digit encoded 0000 to 1111, - 1111 used as filler for bits 8 to 5 of last octet - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n Number of hexadecimal digits shall be 15.

9.2.1.30U   IMEISV

The IMEISV is a permanent UE Equipment Identity, see ref. [1].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IMEISV			OCTET STRING (SIZE (8))	- hexadecimal digits 0 to F, two hexadecimal digits per octet, - each hexadecimal digit encoded 0000 to 1111, - 1111 used as filler for bits 8 to 5 of last octet - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n Number of hexadecimal digits shall be 16.

9.2.1.30V HS-PDSCH Code Change Indicator [FDD]

The HS-PDSCH Code Change Indicator indicates whether the HS-PDSCH Code change is needed or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-PDSCH Code Change Indicator			ENUMERATED (HS-PDSCH Code Change needed)	

9.2.1.30W HS-PDSCH Code Change Grant [FDD]

The *HS-PDSCH Code Change Grant* IE indicates that modification of HS-PDSCH Codes is granted.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-PDSCH Code Change Grant			ENUMERATED(Change Granted)	

9.2.1.31 IMSI

The IMSI is the permanent UE user Identity, see ref. [1].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IMSI			OCTET STRING (SIZE(3..8))	-Decimal digits coded in BCD -"1111" used as filler -bit 4 to 1 of octet n is encoding digit 2n-1 -bit 8 to 5 of octet n is encoding digit 2n

9.2.1.31A   Information Exchange ID

The Information Exchange ID uniquely identifies any requested information per RNS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Information Exchange ID	M		INTEGER(0 .. 2^20-1)	

9.2.1.31B   Information Exchange Object Type

Void.

9.2.1.31C   Information Report Characteristics

The information report characteristics define how the reporting shall be performed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Information Report Characteristics Type*	M			
>*On Demand*			NULL	
>*Periodic*				
>>CHOICE *Information Report Periodicity Scale*	M			The frequency with which the Node B shall send information reports.
>>>*minute*				
>>>>Report Periodicity Value	M		INTEGER (1..60,…)	
>>>*hour*				
>>>>Report Periodicity Value	M		INTEGER (1..24,…)	
>*On Modification*				
>>Information Threshold	O		9.2.1.31D	

9.2.1.31D   Information Threshold

The Information Threshold indicates which kind of information shall trigger the Information Reporting procedure.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE *Information Type Item*	M				–	
>*DGPS Corrections*						
>>PRC Deviation	M		ENUMERATED (1, 2, 5, 10, …)	PRC deviation in meters from the previously reported	–	

				value, which shall trigger a report		
>DGANSS						
>>PRC Deviation	M		ENUMERATED (1, 2, 5, 10, …)	PRC deviation in meters from the previously reported value, which shall trigger a report	−	

9.2.1.31E   Information Type

The Information Type indicates which kind of information the RNS shall provide.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Information Type Item	M		ENUMERATED (UTRAN Access Point Position with Altitude, UTRAN Access Point Position, IPDL Parameters, GPS Information, DGPS Corrections, GPS RX Pos, SFN-SFN Measurement Reference Point Position,…, Cell Capacity Class, NACC Related Data, MBMS Bearer Service Full Address, Inter-frequency Cell Information, GANSS Information, DGANSS Corrections, GANSS RX Pos)	For information exchange on the Iur-g interface, only the Cell Capacity Class is used.	−	
GPS Information	C-GPS	*1..<maxn oofGPSTy pes>*			−	
>GPS Information Item			ENUMERATED (GPS Navigation Model and Time		−	

			Recovery, GPS Ionospheric Model, GPS UTC Model, GPS Almanac, GPS Real-Time Integrity, …)			
GANSS Information	C-*GANSS*				YES	Ignore
>GANSS Common Data		*0..1*			–	
>>Ionospheric Model	O		BOOLEAN	True means requested	–	
>GANSS Generic Data		*0..<maxn oofGANSS >*			–	
>>GANSS ID	O		9.2.1.119		–	
>>GANSS Navigation Model And Time Recovery	O		BOOLEAN	True means requested	–	
>>GANSS Time Model GNSS-GNSS	O		BIT STRING(9)	Defines the time model required. Bit 1 is the MSB and bit 9 is the LSB (see section 9.2.0). Bit 1**:**GPS**,** Bit 2**:**Galileo Other bits are reserved.	–	
>>GANSS UTC Model	O		BOOLEAN	True means requested	–	
>>GANSS Almanac	O		BOOLEAN	True means requested	–	
>>GANSS Real Time Integrity	O		BOOLEAN	True means requested	–	
>>GANSS Data Bit		*0..1*			–	

Assistance						
>>>GANSS TOD	M		INTEGER (0..86399)	The GANSS Time Of Day for which the data bits are requested	–	
>>>Data Bit Assistance		*1*			–	
>>>>DGANSS Signal ID	M		BIT STRING(8)	Defined in [16]	–	
>>>>GANSS Data Bit Interval	M		INTEGER (0..15)	Defined in [16]	–	
>>>>Satellite Information		*0..<max GANSS Sat>*			–	
>>>>Sat ID	M		INTEGER(0..63)	Identifies the satellite and is equal to (SV ID No - 1)	–	
DGANSS Corrections Req	C-*DGANSSCorrections*	*1*			YES	ignore
>DGANSS Signal ID	M		BIT STRING(8)	Defined in [16]	–	

Condition	Explanation
DGANSSCorrections	The IE shall be present if the *Information Type Item* IE indicates "DGANSS Corrections".
GPS	This IE shall be present if the *Information Type Item* IE indicates "GPS Information".
GANSS	This IE shall be present if the *Information Type Item* IE indicates "GANSS Information".

Range Bound	Explanation
maxGANSSSat	Maximum number of satellites for which data is included in the IE
maxnoofGPSTypes	Maximum number of GPS Information Types supported in one Information Exchange.
maxnoofGANSS	Maximum number of GANSS Systems.

9.2.1.31F   IPDL Parameters

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE *IPDL Parameters*					-	
>*IPDL FDD Parameters*						

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>IPDL FDD parameters	M		9.2.2.21B		–	
>*IPDL TDD Parameters*				Applicable to 3.84Mcps TDD and 7.68Mcps TDD only		
>>IPDL TDD parameters	M		9.2.3.4B		–	
>*Additional IPDL Parameters*						
>>*IPDL TDD Parameters LCR*				Applicable to 1.28Mcps TDD only	–	
>>>IPDL TDD parameters LCR	M		9.2.3.4Bb		YES	reject

9.2.1.31G   Inter-frequency Cell Information

This IE contains the inter-frequency cell information of a cell in the DRNS broadcased in SIB11 or SIB12.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SIB11		*0..2*		
>Inter-frequency Cell Indication- SIB11	M		Integer(0..1)	Value tag in 10.3.7.45 in [16] with the same IE name.
>Inter-frequency Cell List in SIB11		*0..<maxCellSIB11 OrSIB12>*		
>>Inter-frequency Cell Id	M		Integer(0..31)	The order of the inter-frequency cell in SIB11.
>>DL UARFCN	M		UARFCN 9.2.1.66	
>>UL UARFCN	O		UARFCN 9.2.1.66	If this IE is not present, the default duplex distance defined for the operating frequency band shall be used [43]
>>Primary Scrambling Code	M		9.2.1.45	
SIB12		*0..2*		
>Inter-frequency Cell Indication- SIB12	M			Value tag in 10.3.7.45 in [16] with the same IE name.
>Inter-frequency Cell List in SIB12		*0..<maxCellSIB11 OrSIB12>*		
>>Inter-frequency Cell			Integer(0..31	The order of the inter-

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Id			)	frequency cell in SIB12.
>>DL UARFCN	M		UARFCN 9.2.1.66	
>>UL UARFCN	O		UARFCN 9.2.1.66	If this IE is not present, the default duplex distance defined for the operating frequency band shall be used [43]
>>Primary Scrambling Code	M		9.2.1.45	

Range bound	Explanation
maxCellSIB11OrSIB12	Maximum number of inter-frequency cells broadcased in SIB11 or SIB12.

9.2.1.32 L3 Information

This parameter contains the Layer 3 Information from a Uu message as received from the UE over the Uu interface or the Layer 3 Information for a Uu message to be sent to a UE by the DRNC, as defined in ref. [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
L3 Information			BIT STRING	The content is defined in ref. [16]

9.2.1.33 Limited Power Increase

Void.

9.2.1.33A Load Value

The *Load Value* IE contains the total load on the measured object relative to the maximum planned load for both the uplink and downlink. It is defined as the load percentage of the Cell Capacity Class.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uplink Load Value	M		INTEGER(0 ..100)	Value 0 shall indicate the minimum load, and 100 shall indicate the maximum load. Load should be measured on a linear scale.
Downlink Load Value	M		INTEGER(0 ..100)	Value 0 shall indicate the minimum load, and 100 shall indicate the maximum load. Load should be measured on a linear scale.

9.2.1.34 MAC-c/sh SDU Length

Indicates the MAC-c/sh SDU Length. Which is used for FACH, [TDD - DSCH and USCH]. There may be multiple MAC-c/sh SDU Lengths per priority class.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MAC-c/sh SDU Length			INTEGER(1 ..5000)	Size of the MAC-c/sh SDU in number of bits.

9.2.1.34A MAC-d PDU Size

The *MAC-d PDU Size* IE provides the size in bits of the MAC-d PDU.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MAC-d PDU Size			INTEGER (1..5000,…)	In case of E-DCH, value 8 and values not multiple of 8 shall not be used.

9.2.1.34Aa MAC-hs Guaranteed Bit Rate

The *MAC-hs Guaranteed Bit Rate* IE indicates the guaranteed number of bits per second that Node B should deliver over the air interface under normal operating conditions (provided there is data to deliver). If the *MAC-hs Guaranteed Bit Rate* IE is received with the value set to 0 during RL set up or modification, no guarantee is applied.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
MAC-hs Guaranteed Bit Rate			INTEGER (0..2^24-1, …, 2^24..256,000, 000)	Unit: bit/s

9.2.1.34Ab MAC-hs Reordering Buffer Size for RLC-UM

The *MAC-hs Reordering Buffer Size for RLC-UM* IE indicates the portion of the buffer in the UE that can be used for RLC-UM traffic (i.e. for Priority Queues whose *RLC Mode* IE is set to "RLC-UM").

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MAC-hs Reordering Buffer Size for RLC-UM			INTEGER (0..300,…)	Unit: kBytes And N kBytes = N*1024 Bytes. The D R N S shall use this value to avoid the overflow of the UE buffer.

9.2.1.34B MAC-hs Reset Indicator

The *MAC-hs Reset Indicator* IE indicates that a reset of the MAC-hs is not required.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MAC-hs Reset Indicator			ENUMERATED	

			(MAC-hs Not Reset)	

9.2.1.34C   MAC-hs Window Size

The *MAC-hs Window Size* IE is used for MAC-hs PDU retransmission as defined in [41].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
MAC-hs Window Size			ENUMERATED (4, 6, 8, 12, 16, 24, 32,…)	

9.2.1.34D   MAC PDU Size Extended

The *MAC PDU Size Extended* IE provides the size in octets of the MAC level PDU when an extended MAC level PDU size is required.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MAC PDU Size Extended			INTEGER (1..1504,…,1505)	

9.2.1.35   Maximum Allowed UL Tx Power

Maximum Allowed UL Tx Power is the maximum power that a UE in a particular cell is allowed to transmit.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Allowed UL Tx Power			INTEGER(-50..+33)	dBm

9.2.1.35A   Measurement Availability Indicator

Void

9.2.1.35B   Measurement Change Time

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Measurement Change Time	M		INTEGER (1..6000,…)	Unit: ms Range: 10..60000 ms Step: 10 ms

9.2.1.36 Measurement Filter Coefficient

The Measurement Filter Coefficient determines the amount of filtering to be applied for measurements.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Measurement Filter Coefficient			ENUMERATED(0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 13, 15, 17, 19,…)	

9.2.1.36A Measurement Hysteresis Time

The Measurement Hysteresis Time provides the duration during which a reporting criterion has to be fulfilled for the Measurement Reporting procedure to be triggered.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Measurement Hysteresis Time			INTEGER (1..6000,…)	Unit: ms Range: 10..60000 ms Step: 10 ms

9.2.1.37 Measurement ID

The Measurement ID uniquely identifies a dedicated measurement within a UE Context or a common measurement within a Distant RNC Context [TDD – or a UE measurement within a UE Context].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Measurement ID			INTEGER(0 .. 2^20-1)	

9.2.1.38 Measurement Increase/Decrease Threshold

The Measurement Increase/Decrease Threshold defines the threshold that shall trigger Event C or D.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE *Measurement Increase/Decrease Threshold*	M				–	
>*SIR*						
>>SIR	M		INTEGER(0..62)	0: 0 dB 1: 0.5 dB 2: 1 dB …	–	

				62: 31dB		
>*SIR Error*				FDD Only		
>>SIR Error	M		INTEGER(0..124)	0: 0 dB 1: 0.5 dB 2: 1 dB … 124: 62 dB	–	
>*Transmitted Code Power*						
>>Transmitted Code Power	M		INTEGER(0..112,...)	0: 0 dB 1: 0.5 dB 2: 1 dB … 112: 56 dB	–	
>*RSCP*				TDD Only		
>>RSCP	M		INTEGER(0..126)	0: 0 dB 1: 0.5 dB 2: 1 dB … 126: 63 dB	–	
>*Round Trip Time*				FDD Only		
>>Round Trip Time	M		INTEGER(0..32766)	0: 0 chips 1: 0.0625 chips 2: 0.1250 chips … 32766: 2047.875 chips	–	
>*Additional Measurement Thresholds*						
>>*Load*						
>>>Load	M		INTEGER(0..100)	Units are the same as for the Uplink *Load Value* IE and *Downlink Load Value* IE.	–	
>>*Transmitted Carrier Power*						

>>>Transmitted Carrier Power	M		INTEGER(0..100)	According to mapping in [23] and [24].	YES	reject
>>*Received Total Wide Band Power*						
>>>Received Total Wide Band Power	M		INTEGER(0..620)	0: 0dB 1: 0.1dB 2: 0.2dB ... 620: 62dB	YES	reject
>>*UL Timeslot ISCP*				TDD Only		
>>>UL Timeslot ISCP	M		INTEGER(0..126)	0: 0dB 1: 0.5dB 2: 1dB ... 126: 63dB	YES	reject
>>*RT Load*						
>>>RT Load	M		INTEGER(0..100)	Units are the same as for the *Uplink RT Load Value* IE and *Downlink RT Load Value* IE.	YES	reject
>>*NRT Load Information*						
>>>NRT Load Information	M		INTEGER(0..3)		YES	reject
>>*UpPTS interference*				1.28Mcps TDD Only		
>>>UpPTS interference Value	M		INTEGER (0..127,…)	According to mapping in [24]	YES	reject

9.2.1.38A   Measurement Recovery Behavior

This IE controls the Measurement Recovery Behavior.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Measurement Recovery Behavior			NULL	

9.2.1.38B Measurement Recovery Reporting Indicator

This IE indicates the Measurement Recovery Reporting.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Measurement Recovery Reporting Indicator			NULL	

9.2.1.38C Measurement Recovery Support Indicator

This IE indicates the Measurement Recovery Support.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Measurement Recovery Support Indicator			NULL	

9.2.1.39 Measurement Threshold

The Measurement Threshold defines which threshold that shall trigger Event A, B, E, F or On Modification.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE *Measurement Threshold*					-	
>*SIR*						
>>SIR	M		INTEGER(0..63)	According to mapping in ref. [23] and [24].	–	
>*SIR Error*				FDD Only		
>>SIR Error	M		INTEGER(0..125)	According to mapping in [23]	–	
>*Transmitted Carrier Power*						
>>Transmitted Code Power	M		INTEGER(0..127)	According to mapping in ref. [23] and [24].	–	
>*RSCP*				TDD Only		
>>RSCP	M		INTEGER(0..127)	According to mapping in ref. [24]	–	
>*Rx Timing Deviation*				Applicable to 3.84Mcps TDD Only		
>>Rx Timing Deviation	M		INTEGER(0..8191)	According to mapping in [24]	–	
>*Round Trip Time*				FDD Only		
>>Round Trip	M		INTEGER(0..32	According to	–	

Time			767)	mapping in [23]		
>Additional Measurement Thresholds						
>>T_{UTRAN-GPS} Measurement Threshold Information						
>>>T_{UTRAN-GPS} Measurement Threshold Information	M		9.2.1.59C		YES	reject
>>SFN-SFN Measurement Threshold Information						
>>>SFN-SFN Measurement Threshold Information	M		9.2.1.52B		YES	reject
>>Load						
>>>Load	M		INTEGER(0..100)	0 is the minimum indicated load, and 100 is the maximum indicated load.	YES	reject
>>Transmitted Carrier Power						
>>>Transmitted Carrier Power	M		INTEGER(0..100)	According to mapping in [23] and [24].	YES	reject
>>Received Total Wide Band Power						
>>>Received Total Wide Band Power	M		INTEGER(0..621)	According to mapping in [23] and [24].	YES	reject
>>UL Timeslot ISCP				TDD Only		
>>>UL Timeslot ISCP	M		INTEGER(0..127)	According to mapping in [24]	YES	reject
>>RT Load						
>>>RT Load	M		INTEGER(0..100)		YES	reject
>>NRT Load Information						
>>>NRT Load	M		INTEGER(0..3)		YES	reject

Information						
>>*Rx Timing Deviation LCR*				Applicable to 1.28Mcps TDD Only		
>>>Rx Timing Deviation LCR	M		INTEGER(0..511)	According to mapping in [24]	YES	reject
>>*HS-SICH reception quality*				Applicable to TDD Only		
>>>HS-SICH reception quality	M		INTEGER (0..20)	According to mapping in [24]	YES	reject
>>*UpPTS interference*				1.28Mcps TDD Only		
>>>UpPTS interference Value	M		INTEGER (0..127,…)	According to mapping in [24]	YES	reject
>>*Rx Timing Deviation 768*				Applicable to 7.68Mcps TDD Only		
>>>Rx Timing Deviation 768	M		INTEGER(0..65535)	According to mapping in [24]	YES	reject
>>*Rx Timing Deviation 384 Extended*				Applicable to 3.84Mcps TDD Only		
>>>Rx Timing Deviation 384 Extended	M		INTEGER(0..32767)	According to mapping in [24]	YES	reject
>>*Extended Round Trip Time*				FDD Only		
>>>Extended Round Trip Time Value	M		INTEGER (32767..103041)	Continuation of intervals with step size as defined in [23].	YES	reject
>>*$T_{UTRAN-GANSS}$ Measurement Threshold Information*						
>>>$T_{UTRAN-GANSS}$ Measurement Threshold Information	M		9.2.1.113		YES	reject

9.2.1.39A   Message Structure

The *Message Structure* IE gives information for each level with assigned criticality in an hierarchical message structure from top level down to the lowest level above the reported level for the occurred error (reported in the *Information Element Criticality Diagnostics* IE).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message structure		*1..<maxno oflevels>*		The first repetition of the *Message Structure* IE corresponds to the top level of the message. The last repetition of the *Message Structure* IE corresponds to the level above the reported level for the occurred error of the message.	–	
>IE ID	M		INTEGER(0..65535)	The IE ID of this level's IE containing the not understood or missing IE.	–	
>Repetition Number	O		INTEGER(1..256)	The *Repetition Number* IE gives, if applicable, the number of occurrences of this level's reported IE up to and including the occurrence containing the not understood or missing IE. Note: All the counted occurrences of the reported IE must have the same topdown hierarchical message structure of IEs with assigned criticality above them.	–	

Range bound	Explanation
maxnooflevels	Maximum no. of message levels to report. The value for maxnooflevels is 256.

9.2.1.40   Message Type

The Message Type uniquely identifies the message being sent.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Procedure ID		1		
>Procedure Code	M		INTEGER (0..255)	"0" = Common Transport Channel Resources Initialisation
				"1" = Common Transport Channel Resources Release
				"2" = Compressed Mode Command
				"3" = Downlink Power Control
				"4" = Downlink Power Timeslot Control
				"5" = Downlink Signalling Transfer
				"6" = Error Indication
				"7" = Dedicated Measurement Failure
				"8" = Dedicated Measurement Initiation
				"9" = Dedicated Measurement Reporting
				"10" = Dedicated Measurement Termination
				"11" = Paging
				"12" = Physical Channel Reconfiguration
				"14" = Radio Link Addition
				"15" = Radio Link Deletion
				"16" = Radio Link Failure
				"17" = Radio Link Preemption
				"18" = Radio Link Restoration
				"19" = Radio Link Setup
				"20" = Relocation Commit
				"21" = Synchronised Radio Link Reconfiguration Cancellation
				"22" = Synchronised Radio Link Reconfiguration Commit
				"23" = Synchronised Radio Link Reconfiguration Preparation
				"24" = UnSynchronised Radio Link Reconfiguration
				"25" = Uplink Signalling Transfer
				"26" = Common Measurement Failure
				"27" = Common Measurement Initiation

				"28" = Common Measurement Reporting
				"29" = Common Measurement Termination
				"30" = Information Exchange Failure
				"31" = Information Exchange Initiation
				"32" = Information Reporting
				"33" = Information Exchange Termination
				"34" = Radio Link Congestion
				"35" = Reset
				"36" = Radio Link Activation
				"37" = GERAN Uplink Signalling Transfer
				"38" = Radio Link Parameter Update
				"39" = UE Measurement Failure
				"40" = UE Measurement Initiation
				"41" = UE Measurement Reporting
				"42" = UE Measurement Termination
				"43" = Iur Deactivate Trace
				"44" = Iur Invoke Trace
				"45" = MBMS Attach
				"46" = MBMS Detach
				"48" = Direct Information Transfer
>Ddmode	M		ENUMERATED(FDD, TDD, Common, …)	Common = common to FDD and TDD.
Type of Message	M		ENUMERATED(Initiating Message, Successful Outcome, Unsuccessful Outcome, Outcome)	

9.2.1.41 Multiple URAs Indicator

The Multiple URAs Indicator indicates whether the accessed cell has multiple URAs.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Multiple URAs Indicator			ENUMERA	

			TED(Multiple URA s exist, Single URA Exists)	

9.2.1.41a   NACC Related Data

The *NACC related data* IE provides NACC related information for the indicated GSM cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *GERAN System Info Type*	M			
>*SI*				
>>SI	M		9.2.1.30Fc	GERAN system information SI3, SI13, SI1 [47]
>*PSI*				
>>PSI	M		9.2.1.30Fc	GERAN system information PSI1, PSI2, PSI4 [47]

9.2.1.41A   Neighbouring UMTS Cell Information

The *Neighbouring UMTS Cell Information* IE provides information for UMTS Cells that are neighbouring cells to a cell in the DRNC. The neighbouring cell information is provided for each RNC (including the DRNC) that has cells that are neighbouring cells to the cell in the DRNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Neighbouring UMTS Cell Information		*1..<maxnoof neighbouring RNCs>*			EACH	ignore
>RNC-ID	M		9.2.1.50	If the *Extended RNC-ID* IE is included in the *Neighbouring UMTS Cell Information* IE, the *RNC-ID* IE shall be ignored.	–	
>CN PS Domain Identifier	O		9.2.1.12		–	
>CN CS Domain Identifier	O		9.2.1.11		–	
>Neighbouring FDD Cell Information	O		9.2.1.41B		–	
>Neighbouring TDD Cell Information	O		9.2.1.41D		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>Neighbouring TDD Cell Information LCR	O		9.2.1.72		YES	ignore
>Extended RNC-ID	O		9.2.1.50a	The *Extended RNC-ID* IE shall be used if the RNC identity has a value larger than 4095.	YES	reject

Range bound	Explanation
maxnoofneighbouringRNCs	Maximum number of neighbouring RNCs.

9.2.1.41B   Neighbouring FDD Cell Information

The *Neighbouring FDD Cell Information* IE provides information for FDD cells that are neighbouring cells to a cell in the DRNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Neighbouring FDD Cell Information		*1..<max noofFD Dneighb ours>*			–	
>C-ID	M		9.2.1.6		–	
>UL UARFCN	M		UARFCN 9.2.1.66	Corresponds to Nu in ref. [6]	–	
>DL UARFCN	M		UARFCN 9.2.1.66	Corresponds to Nd in ref. [6]	–	
>Frame Offset	O		9.2.1.30		–	
>Primary Scrambling Code	M		9.2.1.45		–	
>Primary CPICH Power	O		9.2.1.44		–	
>Cell Individual Offset	O		9.2.1.7		–	
>Tx Diversity Indicator	M		9.2.2.50			
>STTD Support Indicator	O		9.2.2.45		–	
>Closed Loop Mode1 Support Indicator	O		9.2.2.2		–	
>Not Used	O		NULL		–	
>Restriction State Indicator	O		9.2.1.48C		YES	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>DPC Mode Change Support Indicator	O		9.2.2.56		YES	ignore
>Coverage Indicator	O		9.2.1.12G		YES	ignore
>Antenna Co-location Indicator	O		9.2.1.2C		YES	ignore
>HCS Prio	O		9.2.1.30N		YES	ignore
>Cell Capability Container FDD	O		9.2.2.D		YES	ignore
>SNA Information	O		9.2.1.52Ca		YES	ignore
>Frequency Band Indicator	O		9.2.2.59		YES	ignore
>Max UE DTX Cycle	C-CPC-DTX-DRXCapable		9.2.2.87		YES	ignore
>Multiple PLMN List	O		9.2.1.117		YES	ignore

Range bound	Explanation
maxnoofFDDneighbours	Maximum number of neighbouring FDD cell for one cell.

Condition	Explanation
CPC-DTX-DRXCapable	The IE shall be present if the the fifteenth bit Continuous Packet Connectivity DTX-DRX Support Indicator in the *Cell Capability Container FDD* IE is set to the value "1".

9.2.1.41C   Neighbouring GSM Cell Information

The *Neighbouring GSM Cell Information* IE provides information for all GSM Cells that are a neighbouring cell to a cell in the DRNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Neighbouring GSM Cell Information		*1..<max noofGS Mneighb ours>*			GLOBAL	ignore
>CGI		*1*		Cell Global Identity as defined in ref. [1].	–	
>>LAI		*1*			–	
>>>PLMN Identity	M		OCTET STRING (3)	- digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001,	–	

				- 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n -The PLMN Identity consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case of a 3 digit MNC).		
>>>LAC	M		OCTET STRING (2)	0000 and FFFE not allowed	–	
>>CI	M		OCTET STRING (2)		–	
>Cell Individual Offset	O		9.2.1.7	The Cell Individual Offset to be used for UEs using DCHs. If the *Extended GSM Cell Individual Offset* IE is present, the *Cell Individual Offset* IE shall be set to a) –10dB if the *Extended GSM Cell Individual Offset* IE is < -10dB and b) 10dB if the *Extended GSM Cell Individual Offset* IE is > 10dB.	–	
>BSIC		*1*		Base Station Identity Code as defined in ref. [1].	–	
>>NCC	M		BIT STRING(3)	Network Colour Code.	–	
>>BCC	M		BIT STRING(3)	Base Station Colour Code.	–	
>Band Indicator	M		ENUMERATED(DCS 1800 band, PCS 1900 band, …)	Indicates whether or not the BCCH ARFCN belongs to the 1800 band or 1900 band of GSM frequencies.	–	

>BCCH ARFCN	M		INTEGER(0..1023)	BCCH Frequency as defined in ref. [29].	–	
>Coverage Indicator	O		9.2.1.12G		YES	ignore
>Antenna Co-location Indicator	O		9.2.1.2C		YES	ignore
>HCS Prio	O		9.2.1.30N		YES	ignore
> SNA Information	O		9.2.1.52Ca		YES	ignore
>GERAN Cell Capability	O		9.2.1.30Fa		YES	ignore
>GERAN Classmark	O		9.2.1.30Fb		YES	ignore
>Extended GSM Cell Individual Offset	O		9.2.1.26Bb	The Extended GSM Cell Individual Offset to be used for UEs using DCHs, for values that exceed the range of the *Cell Individual Offset* IE.	YES	ignore

Range bound	Explanation
maxnoofGSMneighbours	Maximum number of neighbouring GSM cells for one cell.

9.2.1.41D   Neighbouring TDD Cell Information

The *Neighbouring TDD Cell Information* IE provides information for 3.84Mcps TDD or 7.68Mcps TDD cells that are neighbouring cells to a cell in the DRNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Neighbouring TDD Cell Information		*1..<maxnoofTDDneighbours>*			–	
>C-ID	M		9.2.1.6		–	
>UARFCN	M		9.2.1.66	Corresponds to Nt in ref. [7]	–	
>Frame Offset	O		9.2.1.30		–	
>Cell Parameter ID	M		9.2.1.8		–	
>Sync Case	M		9.2.1.54		–	
>Time Slot For SCH	C-Case1		Time Slot 9.2.1.56		–	
>SCH Time Slot	C-Case2		9.2.1.51		–	
>SCTD Indicator	M		9.2.1.78		–	
>Cell Individual Offset	O		9.2.1.7		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>DPCH Constant Value	O		9.2.1.23		–	
>PCCPCH Power	O		9.2.1.43		–	
>Restriction State Indicator	O		9.2.1.48C		YES	ignore
>Coverage Indicator	O		9.2.1.12G		YES	ignore
>Antenna Co-location Indicator	O		9.2.1.2C		YES	ignore
>HCS Prio	O		9.2.1.30N		YES	ignore
>Cell Capability Container TDD	O		9.2.3.1a		YES	ignore
>Cell Capability Container 7.68Mcps TDD	O		9.2.3.31		YES	ignore
> SNA Information	O		9.2.1.52Ca		YES	ignore
>Multiple PLMN List	O		9.2.1.117		YES	ignore

Condition	Explanation
Case1	The IE shall be present if the *Sync Case* IE is set to "Case1".
Case2	The IE shall be present if the *Sync Case* IE is set to "Case2".

Range bound	Explanation
maxnoofTDDneighbours	Maximum number of neighbouring 3.84Mcps TDD or 7.68Mcps TDD cell for one cell.

9.2.1.41Dd   Neighbouring TDD Cell Measurement Information LCR

This IE provides information on the 1.28Mcps TDD neighbouring cells used for the purpose of Measurements. Since the measurement can be performed on every time slot and midamble shift, the *Time slot LCR* IE and *Midamble shift LCR* IE shall be included if available.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UTRAN Cell Identifier	M		9.2.1.71	
UARFCN	M		9.2.1.66	Corresponds to Nt [15]
Cell Parameter ID	M		9.2.1.8	
Time Slot LCR	O		9.2.3.12a	
Midamble shift LCR	O		9.2.3.4C	

9.2.1.41E   Paging Cause

Cause for a CN originated page.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Paging Cause			ENUMERATED(Terminating Conversational Call, Terminating Streaming Call, Terminating Interactive Call, Terminating Background Call, Terminating Low Priority Signalling, …, Terminating High Priority Signalling, Terminating – cause unknown)	See in [16]

9.2.1.41F   Paging Record Type

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Paging Record Type			ENUMERATED(IMSI (GSM-MAP), TMSI (GSM-MAP), P-TMSI (GSM-MAP), IMSI (DS-41), TMSI (DS-41),...)	See ref. [16]

9.2.1.41Fa   Partial Reporting Indicator

This IE indicates if DRNS may report partially successful measurements.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Partial Reporting Indicator			ENUMERATED(partial reporting allowed)	

9.2.1.41G Neighbouring FDD Cell Measurement Information

This IE provides information on the FDD neighbouring cells used for the purpose of Measurements.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UTRAN Cell Identifier	M		9.2.1.71	
UARFCN	M		9.2.1.66	Corresponds to Nd [6]
Primary Scrambling Code	M		9.2.1.45	

9.2.1.41H Neighbouring TDD Cell Measurement Information

This IE provides information on the 3.84Mcps TDD neighbouring cells used for the purpose of Measurements. Since the measurement can be performed on every time slot and midamble shift, the *Time slot* IE and *Midamble shift and burst type* IE shall be included if available.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UTRAN Cell Identifier	M		9.2.1.71	
UARFCN	M		9.2.1.66	Corresponds to Nt [15]
Cell Parameter ID	M		9.2.1.8	
Time slot	O		9.2.1.56	
Midamble Shift And Burst Type	O		9.2.3.4	

9.2.1.41I NRT Load Information Value

The *NRT Load Information* IE indicates the load situation on the cell for the Non Real-Time traffic. Non Real Time traffic corresponds to the Interactive and Background traffic classes.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uplink NRT Load Information Value	M		INTEGER(0..3)	Mapping of the status: 0: low: The Uplink NRT load is low. 1: medium: The Uplink NRT load is medium. 2: high: Uplink NRT load is high. Probability to admit a new user is low. 3: overloaded: Uplink NRT

				overload. The probability to admit a new user is low, packets are discarded and the source is recommended to reduce the data flow.
Downlink NRT Load Information Value	M		INTEGER(0 ..3)	Mapping of the status: 0: low: The Downlink NRT load is low. 1: medium: The Downlink NRT load is medium. 2: high: Downlink NRT load is high. Probability to admit a new user is low. 3: overloaded: Downlink NRT overload. The probability to admit a new user is low, packets are discarded and the source is recommended to reduce the data flow.

9.2.1.42 Payload CRC Present Indicator

This parameter indicates whether FP payload 16 bit CRC is used or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Payload CRC Presence Indicator			ENUMERATED(CRC Included, CRC not included)	

9.2.1.43 PCCPCH Power

Primary CCPCH power is the power that shall be used for reference power value in a TDD cell. The reference point is the antenna connector. If Transmit Diversity is applied to the Primary CCPCH, the PCCPCH Power is the linear sum of the power that is used for transmitting the PCCPCH on all branches.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PCCPCH Power			NTEGER (-150..400,...)	Unit dBm Range –15.0 to 40.0 dBm, Step size 0.1 dB. -15.0 shall indicate P$\leq$ -15dBm +40.0 shall indicate P$\geq$ 40dBm.

9.2.1.44 Primary CPICH Power

Primary CPICH power is the power that is used for transmitting the Primary CPICH in a cell. The reference point is the antenna connector. If Transmit Diversity is applied to the Primary CPICH, the Primary CPICH Power is the linear sum of the power that is used for transmitting the Primary CPICH on all branches.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Primary CPICH Power			INTEGER (-100..500)	Value = Primary CPICH Power/10 Unit dBm Range –10.0..+50.0 Step 0.1 dB

9.2.1.45 Primary Scrambling Code

The Primary scrambling code to be used in the cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Primary Scrambling Code			INTEGER(0 .. 511)	

9.2.1.45A Priority Queue ID

The *Priority Queue ID* IE provides the identity of the Priority Queue. The Priority Queue ID is unique across all MAC-d flows that are currently allocated for one UE Context or across all Common MAC flows within a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Priority Queue ID			INTEGER (0..7)	

9.2.1.45B Process Memory Size

The *Process Memory Size* IE is the size of an HARQ process in the DRNS expressed in bits. It provides the maximum number of soft channel bits in the virtual IR buffer [9] or [46].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Process Memory Size			ENUMERATED (800, 1600, 2400, 3200, 4000, 4800, 5600, 6400, 7200, 8000, 8800, 9600, 10400, 11200, 12000, 12800, 13600, 14400, 15200, 16000, 17600, 19200, 20800, 22400, 24000, 25600, 27200, 28800, 30400, 32000, 36000, 40000, 44000, 48000, 52000, 56000, 60000, 64000, 68000, 72000, 76000, 80000,	

| | | | | 88000, 96000, 104000, 112000, 120000, 128000, 136000, 144000, 152000, 160000, 176000, 192000, 208000, 224000, 240000, 256000, 272000, 288000, 304000,…) | |

9.2.1.46   Puncture Limit

The maximum amount of puncturing for a transport channel in rate matching.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Puncture Limit			INTEGER (0..15)	0: 40% 1: 44 % … 14: 96% 15: 100% (no puncturing) [FDD - Value 0 is not applicable for E-DPCH.]

9.2.1.46A   QE-Selector

The QE-Selector indicates from which source the value for the quality estimate (QE) shall be taken.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
QE-Selector			ENUMERATED(selected, non-selected)	

9.2.1.47   RANAP Relocation Information

This parameter is transparent to the RNSAP. The parameter contains information for the Relocation procedure as defined in [2].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RANAP Relocation Information			BIT STRING	The content is defined in ref. [2].

9.2.1.48   Report Characteristics

The Report Characteristics, defines how the reporting shall be performed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE *Report Characteristics*	M				–	
>*On Demand*			NULL		–	
>*Periodic*						
>>Report Periodicity	M		9.2.1.48a	The periodicity with which the DRNS shall send measurement reports.	–	
>*Event A*						
>>Measurement Threshold	M		9.2.1.39	The threshold for which the DRNS shall trigger a measurement report.	–	
>>Measurement Hysteresis Time	O		9.2.1.36A		–	
>*Event B*						
>>Measurement Threshold	M		9.2.1.39	The threshold for which the DRNS shall trigger a measurement report.	–	
>>Measurement Hysteresis Time	O		9.2.1.36A		–	
>*Event C*						
>>Measurement Increase/Decrease Threshold	M		9.2.1.38		–	
>>Measurement Change Time	M		9.2.1.35B	The time within which the measurement entity shall rise, in order to trigger a measurement report.	–	
>*Event D*						
>>Measurement Increase/Decrease	M		9.2.1.38		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Threshold						
>>Measurement Change Time	M		9.2.1.35B	The time within which the measurement entity shall fall, in order to trigger a measurement report.	–	
>*Event E*						
>>Measurement Threshold 1	M		Measurement Threshold 9.2.1.39		–	
>>Measurement Threshold 2	O		Measurement Threshold 9.2.1.39		–	
>>Measurement Hysteresis Time	O		9.2.1.36A	The hysteresis time in ms	–	
>>Report Periodicity	O		9.2.1.48a	The periodicity with which the DRNS shall send measurement reports.	–	
>*Event F*						
>>Measurement Threshold 1	M		Measurement Threshold 9.2.1.39		–	
>>Measurement Threshold 2	O		Measurement Threshold 9.2.1.39		–	
>>Measurement Hysteresis Time	O		9.2.1.36A	The hysteresis time in ms	–	
>>Report Periodicity	O		9.2.1.48a	The periodicity with which the DRNS shall send measurement reports.	–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>Additional Report Characteristics						
>>On Modification						
*>>> **On Modification***		1			YES	reject
>>>>Measurement Threshold	M		9.2.1.39			

9.2.1.48a   Report Periodicity

The Report Periodicity defines the frequency at which the Node B shall send measurement reports.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Report Periodicity Scale*	M			
>millisecond				
>>Report Periodicity Value	M		INTEGER (1..6000,…)	Unit: ms Range: 10..60000 ms Step: 10 ms
>minute				
>>Report Periodicity Value	M		INTEGER (1..60,…)	Unit: min Range: 1..60 min Step: 1 min

9.2.1.48A   Requested Data Value

The Requested Data Value contains the relevant data concerned the ongoing information exchange. *Requested Data Value* IE shall include at least one of the following IE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
UTRAN Access Point Position with Altitude	O		9.2.1.75		–	
IPDL Parameters	O		9.2.1.31F		–	
DGPS Corrections	O		9.2.1.19B		–	
GPS Navigation Model and Time Recovery	O		9.2.1.30I		–	
GPS Ionospheric Model	O		9.2.1.30H		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
GPS UTC Model	O		9.2.1.30L		–	
GPS Almanac	O		9.2.1.30G		–	
GPS Real-Time Integrity	O		9.2.1.30J		–	
GPS RX Pos	O		9.2.1.30K		–	
SFN-SFN Measurement Reference Point Position	O		9.2.1.74		–	
Cell Capacity Class Value	O		9.2.1.5C		YES	ignore
NACC Related Data	O		9.2.1.41a		YES	ignore
MBMS Bearer Service Full Address	O		9.2.1.84		YES	ignore
Inter-frequency Cell Information	O		9.2.1.31G		YES	ignore
GANSS Common Data		0..1			YES	ignore
>GANSS Ionospheric Model	O		9.2.1.105		–	
>GANSS RX Pos	O		9.2.1.109		–	
GANSS Generic Data		*0..<maxnoofGANSS>*			GLOBAL	ignore
>GANSS ID	O		9.2.1.119		–	
>DGANSS Corrections	O		9.2.1.102		–	
>GANSS Navigation Model And Time Recovery	O		9.2.1.120		–	
>GANSS Time Model	O		9.2.1.110		–	
>GANSS UTC Model	O		9.2.1.111		–	
>GANSS Almanac	O		9.2.1.103		–	
>GANSS Real Time Integrity	O		9.2.1.108		–	
>GANSS Data Bit Assistance	O		9.2.1.118		–	

Range Bound	Explanation
maxnoofGANSS	Maximum number of GANSS Systems

9.2.1.48B   Requested Data Value Information

The *Requested Data Value Information* IE provides information on whether or not the Requested Data Value is available in the message and also the Requested Data Value itself if available. In case of "Periodic" and "On

Modification" reporting, "Information Not Available" shall be used when at least one part of the requested information was not available at the moment of initiating the Information Reporting procedure.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE *Information Availability Indicator*	M				–	
>*Information Available*					–	
>>Requested Data Value	M		9.2.1.48A		–	
>*Information not Available*			NULL		–	

9.2.1.48C   Restriction State Indicator

The Restriction state indicator is the identifier indicates whether the cell is "Cell Reserved for Operator Use" or not. It is provided by DRNS and reported to SRNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Restriction state indicator			ENUMERATED(Cell Not Reserved for Operator Use, Cell Reserved for Operator Use, …)	

9.2.1.48D   RLC Mode

The *RLC Mode* IE indicates the RLC Mode used for a Priority Queue.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RLC Mode			ENUMERATED (RLC-AM, RLC-UM,…)	

9.2.1.49   RL ID

The RL ID is the unique identifier for one RL associated with a UE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RL ID			INTEGER	

			(0..31)	

9.2.1.49A   RL Specific DCH Information

The *RL Specific DCH Information* IE provides RL Specific DCH Information for DCHs. In case of a set of co-ordinated DCHs requiring a new transport bearer on Iur, the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE shall be included only for one of the DCHs in the set of co-ordinated DCHs.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
RL Specific DCH Information		*1..<maxno ofDCHs>*			–	
>DCH ID	M		9.2.1.16		–	
>Binding ID	O		9.2.1.3	Shall be ignored if bearer establishment with ALCAP.	–	
>Transport Layer Address	O		9.2.1.62	Shall be ignored if bearer establishment with ALCAP.	–	
>Transport Bearer Not Requested Indicator	O		9.2.2.4S	FDD Only	YES	Ignore

Range bound	Explanation
maxnoofDCHs	Maximum number of DCHs for one UE.

9.2.1.50   RNC-ID

This is the identifier of one RNC in UTRAN.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RNC-ID			INTEGER(0 ..4095)	

9.2.1.50a   Extended RNC-ID

This is the identifier of one RNC in UTRAN.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Extended RNC-ID			INTEGER(4 096..65535)	Note: Application of the *Extended RNC-ID* IE to very large networks is FFS.

9.2.1.50A   SAT ID

The SAT ID indicates the identity of the satellite.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SAT ID			INTEGER(0 ..63)	Identifies the satellite and is equal to (SV ID No - 1) where SV ID No is defined in [30].

9.2.1.50B   RT Load Value

The *RT Load Value* IE indicates in percents the ratio of the load generated by Real Time traffic, relative to the measured Load Value. Real Time traffic corresponds to the Conversational and Streaming traffic classes.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uplink RT Load Value	M		INTEGER(0 ..100)	
Downlink RT Load Value	M		INTEGER(0 ..100)	

9.2.1.51   SCH Time Slot

The *SCH Time Slot* IE represents the first time slot (k) of a pair of time slots inside a Radio Frame that is assigned to the Physical Channel SCH. The *SCH Time Slot* IE is only applicable if the value of *Sync Case* IE is Case 2 since in this case the SCH is allocated in TS#k and TS#k+8.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SCH Time Slot			INTEGER(0 ..6)	

9.2.1.51A   Scheduling Priority Indicator

Indicates the relative priority of the FACH, [TDD - DSCH, USCH,] HS-DSCH [FDD - or E-DCH] data frame. Used by the DRNC when scheduling FACH, [TDD - DSCH, USCH,] HS-DSCH [FDD - or E-DCH] traffic.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Scheduling Priority Indicator			INTEGER(0 ..15)	Relative priority of the FACH, [TDD - DSCH, USCH,] HS-DSCH [FDD - or E-DCH] data frame: 0=Lowest Priority … 15=Highest Priority

9.2.1.52 Service Area Identifier (SAI)

This information element is used to identify an area consisting of one or more cells belonging to the same Location Area. Such an area is called a Service Area and can be used for indicating the location of a UE to the CN. For this protocol, only a Service Area that is defined to be applicable to the PS and CS domains shall be used.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PLMN Identity	M		OCTET STRING (3)	- digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n -The PLMN Identity consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case of a 3 digit MNC).
LAC	M		OCTET STRING (2)	0000 and FFFE not allowed
SAC	M		OCTET STRING (2)	

9.2.1.52A SFN

System Frame Number of the cell, see ref. [17].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SFN			INTEGER(0 ..4095)	

9.2.1.52B SFN-SFN Measurement Threshold Information

The SFN-SFN Measurement Threshold Information defines the related thresholds SFN-SFN Observed Time Difference measurements which shall trigger the Event On Modification.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SFN-SFN Change Limit	O		INTEGER(1 ..256)	Change of SFN-SFN value compared to previously reported value, which shall trigger a new report. Unit in 1/16 chip.
Predicted SFN-SFN Deviation Limit	O		INTEGER(1 ..256)	Deviation the Predicted SFN-SFN from the latest measurement result, which shall

| | | | | trigger a new report.

Unit in 1/16 chip. |
|---|---|---|---|---|

9.2.1.52C SFN-SFN Measurement Value Information

The SFN-SFN Measurement Value Information IE indicates the measurement result related to SFN-SFN Observed Time Difference measurements as well as other related information.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Successful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information		*1..<maxnoofMeasNCell>*		
>UTRAN Cell Identifier	M		9.2.1.71	
>SFN-SFN Value	M		9.2.1.77	
>SFN-SFN Quality	O		INTEGER(0 ..255)	Indicates the standard deviation (std) of the SFN-SFN otd (observed time difference) measurements in 1/16 chip. SFN-SFN Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported SFN-SFN Value, where x is the reported SFN-SFN Value and $\mu = E[x]$ is the expectation value of x.
>SFN-SFN Drift Rate	M		INTEGER(-100..100)	Indicates the SFN-SFN drift rate in 1/256 chip per second.

A positive value indicates that the Reference cell clock is running at a greater frequency than the measured neighbouring cell. |
>SFN-SFN Drift Rate Quality	O		INTEGER(0 ..100)	Indicates the standard deviation (std) of the SFN-SFN drift rate measurements in 1/256 chip per second. SFN-SFN Drift Rate Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported SFN-SFN Drift Rate, where x is the reported SFN-SFN Drift Rate and $\mu = E[x]$ is the expectation value of x.
>SFN-SFN Measurement Time Stamp	M		9.2.1.76	
Unsuccessful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information		*0..<maxnoofMeasNCell-1>*		
>UTRAN Cell Identifier	M		9.2.1.71	

Range bound	Explanation
maxnoofMeasNCell	Maximum number of neighbouring cells on which measurements can be performed.

9.2.1.52Ca   Shared Network Area (SNA) Information

This information element contains a list of Shared Network Areas, identified by the Shared Network Area Code (SNAC, see [1]) which a certain cell belongs to. For a broader description of the SNA access control see [40].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
PLMN Identity	M		OCTET STRING (3)	- digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n -The PLMN Identity consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case of a 3 digit MNC).
List of SNAs		*0..<maxnoofSNAs >*		
> SNAC	M		INTEGER (0.. 65535)	

Range bound	Explanation
maxnoofSNAs	Maximum number of SNAs one cell can be part of.

9.2.1.52D   SID

The *SID* IE provides the identity of the Size Index.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SID			INTEGER (0..7)	

9.2.1.53   S-RNTI

The S-RNTI identifies the UE in the SRNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
S-RNTI			INTEGER(0 ..2^20 –1)	

9.2.1.53a   S-RNTI Group

The S-RNTI Group identifies a group of UEs in the SRNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
S-RNTI	M		9.2.1.53	
S-RNTI bit mask index	M		Enumerated(b1, b2,..b19,…)	

The S-RNTI group is identified by all S-RNTI values whose bits starting from the most significant bit down to, and including, the bit indicated by S-RNTI bit mask index, are equal to the corresponding bits of the S-RNTI in this IE.

The bits of the S-RNTI in this IE that are less significant than the bit position indicated by the S-RNTI bit mask index shall be ignored.

9.2.1.54   Sync Case

The SCH and PCCPCH in a TDD cell are mapped on one or two downlink slots per frame. There are two cases of Sync Case as follows:

Case 1)   SCH and PCCPCH allocated in a single TS#k

Case 2)   SCH allocated in two TS: TS#k and TS#k+8
PCCPCH allocated in TS#k

[1.28Mcps TDD - There is no Sync Case indication needed for 1.28Mcps TDD. If the *Sync Case* IE must be included in a message from DRNC to SRNC used for 1.28Mcps TDD, the DRNC shall indicate Sync Case 1 and the SRNC shall ignore it.]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Sync Case			INTEGER (1..2,...)	

9.2.1.54A   T1

The *T1* IE is used as described in ref [41] subclause 11.6.2.3.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
T1			ENUMERA TED (10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 120,	Unit: ms Node B may use this value to stop the re-transmission of the corresponding MAC-hs

			140, 160, 200, 300, 400, …)	PDU.

9.2.1.55   TFCI Presence

The TFCI Presence parameter indicates whether the TFCI shall be included. [TDD - If it is present in the timeslot, it will be mapped to the channelisation code defined by [12].]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TFCI Presence			ENUMERAT ED(Present, not present)	

9.2.1.56   Time Slot

The Time Slot represents the time interval assigned to a Physical Channel referred to the start of a Radio Frame.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Time Slot			INTEGER (0..14)	

9.2.1.56A   TNL QoS

This IE indicates the TNL QoS characteristics of the transport bearer for the uplink data traffic.

When the *DS field* IE is used, the value of this IE is configurable by the operator.

When the G*eneric Traffic Category* IE is used, generic traffic categories are implementation-specific (e.g. they may be determined by the sender from the application parameters). The value assigned to each of these categories and sent in the *Generic Traffic Category* IE is configurable by the operator, as well as the mapping of this value to DS field [44] at the DRNS side.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *TNL QoS type*	M			
>*DS Field*				
>>DS field	M		BIT STRING (8)	DS field as defined in [44]. Typically used when the DRNS and its SRNC are in the same DS domain as defined in [45].
>*Generic Traffic Category*				
>>Generic Traffic Category	M		BIT STRING (8)	

9.2.1.57 ToAWE

ToAWE is the window endpoint. DL data frames are expected to be received before this window endpoint. ToAWE is defined with a positive value relative Latest Time of Arrival (LToA). A data frame arriving after ToAWE gives a Timing Adjustment Control frame response.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
ToAWE			INTEGER (0..2559)	Unit: msec.

9.2.1.58 ToAWS

ToAWS is the window startpoint. DL data frames are expected to be received after this window startpoint. ToAWS is defined with a positive value relative Time of Arrival Window Endpoint (ToAWE). A data frame arriving before ToAWS gives a Timing Adjustment Control frame response.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
ToAWS			INTEGER (0..1279)	Unit: msec.

9.2.1.58a Trace Depth

The *Trace Depth* IE is Trace Configuration Parameter what should be traced by the DRNC on the indicated interfaces.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Trace Depth			ENUMERATED (Minimum, Medium, Maximum,…)	Meaning of this parameter is described in [49]

9.2.1.58b Trace Recording Session Reference

The *Trace Recording Session Reference* IE provides a Trace Recording Session Reference allocated by the triggering entity.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Trace Recording Session Reference			INTEGER (0..65535)	

9.2.1.58c Trace Reference

The *Trace Reference* IE provides a Trace Reference allocated by the triggering entity.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Trace Reference			OCTET STRING (SIZE(2..3))	

9.2.1.58A   Traffic Class

This IE indicates the type of application the Radio Bearer is optimised for.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Traffic Class			ENUMERATED (conversational, streaming, interactive, background, ...)	

9.2.1.59   Transaction ID

The Transaction ID is used to associate all the messages belonging to the same procedure. Messages belonging to the same procedure shall use the same Transaction ID.

The Transaction ID is determined by the initiating peer of a procedure.

For procedures addressed to a specific UE Context, the Transaction ID shall uniquely identify a procedure among all ongoing parallel procedures for the same UE using the same procedure code, and initiated by the same protocol peer.

For procedures not addressed to a specific UE Context, the Transaction ID shall uniquely identify a procedure among all ongoing parallel procedures using the same procedure code, and initiated by the same protocol peer.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Transaction ID Length*				The Transaction ID shall be interpreted for its integer value, not for the type of encoding ("short" or "long").
>*Short*				
>>Transaction ID Value	M		INTEGER (0..127)	
>*Long*				
>>Transaction ID Value	M		INTEGER (0..32767)	

9.2.1.59A   Transmitted Carrier Power

The *Transmitted Carrier Power* IE contains the Transmitted Carrier Power in a cell, as defined in [11] & [14].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmitted Carrier Power			INTEGER(0	According to mapping in [23]

			..100)	and [24].

9.2.1.59B T$_{UTRAN-GPS}$ Accuracy Class

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
T$_{UTRAN-GPS}$ Accuracy Class			ENUMERATED(Accuracy Class A, Accuracy Class B, Accuracy Class C,…)	More information about Measurement Accuracy Class is included in [23].

9.2.1.59C T$_{UTRAN-GPS}$ Measurement Threshold Information

The T$_{UTRAN-GPS}$ Measurement Threshold Information defines the related thresholds for UTRAN GPS Timing of Cell Frames for UE Positioning measurements shall trigger the Event On Modification.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
T$_{UTRAN-GPS}$ Change Limit	O		INTEGER(1..256)	Change of T$_{UTRAN-GPS}$ value compared to previously reported value, which shall trigger a new report. Unit in 1/16 chip.
Predicted T$_{UTRAN-GPS}$ Deviation Limit	O		INTEGER(1..256)	Deviation of the Predicted T$_{UTRAN-GPS}$ from the latest measurement result, which shall trigger a new report. Unit in 1/16 chip.

9.2.1.59D T$_{UTRAN-GPS}$ Measurement Value Information

The T$_{UTRAN-GPS}$ *Measurement Value Information* IE indicates the measurement results related to the UTRAN GPS Timing of Cell Frames for UE Positioning measurements.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
T$_{UTRAN-GPS}$		1		Indicates the UTRAN GPS Timing of Cell Frames for UE Positioning. According to mapping in [23] and [24]; significant values range from 0 to 37158911999999.
>MS	M		INTEGER (0..16383)	Most Significant Part
>LS	M		INTEGER (0..4294967295)	Least Significant Part

T_{UTRAN-GPS} Quality	O		INTEGER(0..255)	Indicates the standard deviation (std) of the $T_{UTRAN-GPS}$ measurements in 1/16 chip. $T_{UTRAN-GPS}$ Quality $= \sqrt{E[(x-\mu)^2]}$ = std of reported $T_{UTRAN-GPS}$ Value, where x is the reported $T_{UTRAN-GPS}$ Value and $\mu = E[x]$ is the expectation value of x.
T_{UTRAN-GPS} Drift Rate	M		INTEGER(-50..50)	Indicates the $T_{UTRAN-GPS}$ drift rate in 1/256 chip per second. A positive value indicates that the UTRAN clock is running at a lower frequency than GPS clock.
T_{UTRAN-GPS} Drift Rate Quality	O		INTEGER(0..50)	Indicates the standard deviation (std) of the $T_{UTRAN-GPS}$ drift rate measurements in 1/256 chip per second. $T_{UTRAN-GPS}$ Drift Rate Quality $= \sqrt{E[(x-\mu)^2]}$ = std of reported $T_{UTRAN-GPS}$ Drift Rate, where x is the reported $T_{UTRAN-GPS}$ Drift Rate and $\mu = E[x]$ is the expectation value of x.

9.2.1.60   Transport Bearer ID

The Transport Bearer ID uniquely identifies an Iur transport bearer.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transport Bearer ID			INTEGER(0..4095)	

9.2.1.61   Transport Bearer Request Indicator

Indicates whether a new Iur transport bearer needs to be established for carrying the corresponding data stream(s), or whether an existing transport bearer will be used.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transport Bearer Request Indicator			ENUMERATED(Bearer Requested, Bearer not Requested, …)	

9.2.1.62   Transport Layer Address

In case of transport bearer establishment with ALCAP [3] [35], this IE contains the address to be used for Transport Network Control Plane signalling to establish the transport bearer according to [3] [35].

In order to allow transport bearer establishment without ALCAP, this IE contains the address of the transport bearer to be used for the user plane transport.

For details on the Transport Address used see [3].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transport Layer Address			BIT STRING(1..160, …)	

9.2.1.63   Transport Format Combination Set (TFCS)

The Transport Format Combination Set is defined as a set of Transport Format Combinations on a Coded Composite Transport Channel. It is the allowed Transport Format Combinations of the corresponding Transport Channels. The DL Transport Format Combination Set is applicable to DL Transport Channels.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *TFCS Values*	M			
>*Always Used*				This choice is always made.
>>**TFCS**		*1..<maxnoofTFCs>*		The first instance of the parameter corresponds to TFCI zero, the second to 1 and so on. [TDD - The first entry (for TFCI 0) should be ignored by the receiver.]
>>>CTFC	M		9.2.1.14A	
>>>CHOICE *Gain Factors*	C-PhysChan			
>>>>*Signalled Gain Factors*				
>>>>>Gain Factor β$_C$	M		INTEGER(0..15)	[FDD - For UL DPCCH or control part of PRACH ref. [21].] [TDD - β for UL DPCH mapping in accordance to [13].]
>>>>>Gain Factor β$_D$	M		INTEGER(0..15)	[FDD - For UL DPDCH or data part of PRACH ref. [21].] [TDD - Should be set to 0 by the sender, and shall be ignored by the receiver.]
>>>>>Reference TFC nr	O		INTEGER(0..15)	If this TFC is a reference TFC, this IE indicates the reference number
>>>>*Computed Gain Factors*				

>>>>>Reference TFC nr	M		INTEGER(0..15)	Indicates the reference TFC to be used to calculate the gain factors for this TFC
>*Not Used*			NULL	This choice shall never be made by the SRNC and the DRNC shall consider the procedure as failed if it is received.

Condition	Explanation
PhysChan	The choice shall be present if the TFCS concerns a UL DPCH [FDD – or PRACH channel].

Range bound	Explanation
maxnoofTFCs	The maximum number of Transport Format Combinations.

9.2.1.64 Transport Format Set

The Transport Format Set is defined as the set of Transport Formats associated to a Transport Channel, e.g. DCH.

[TDD - The Transport Format Set for each transport channel within the same CCTrCH shall have the same value for the *2nd Interleaving Mode* IE.]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Dynamic Transport Format Information		*1..<maxTFcount>*		The first instance of the parameter corresponds to TFI zero, the second to 1 and so on.
>Number of Transport Blocks	M		INTEGER (0..512)	
>Transport Block Size	C – Blocks		INTEGER (0..5000)	Unit: Bits
>CHOICE *Mode*	M			
>>*TDD*				
>>>**Transmission Time Interval Information**	C-TTIdynamic	*1..<maxTTIcount >*		
>>>>Transmission Time Interval	M		ENUMERA TED(10, 20, 40, 80,…)	Unit: msec
Semi-static Transport Format Information		1		
>Transmission Time Interval	M		ENUMERA TED (10, 20, 40, 80, dynamic,	Unit: msec Value "dynamic" for TDD only.

				…)	For FDD DCH, the value "80" is applicable only when *DL DPCH Slot Format* IE indicates a slot format with SF=512.
>Type of Channel Coding	M		ENUMERATED (No codingTDD, Convolutional, Turbo,…)		[FDD - The value "No codingTDD" shall be treated as logical error if received]
>Coding Rate	C – Coding		ENUMERATED (1/2, 1/3,…)		
>Rate Matching Attribute	M		INTEGER (1..maxRM)		
>CRC size	M		ENUMERATED (0, 8, 12, 16, 24,…)		
>CHOICE *Mode*	M				
>>*TDD*					
>>>2nd Interleaving Mode	M		ENUMERATED(Frame related, Timeslot related,…)		

Condition	Explanation
Blocks	The IE shall be present if the *Number of Transport Blocks* IE is set to a value greater than 0.
Coding	The IE shall be present if *Type of Channel Coding* IE is set to "Convolutional" or "Turbo".
TTIdynamic	The IE shall be present if the *Transmission Time Interval* IE in the *Semi-static Transport Format Information* IE is set to "dynamic".

Range bound	Explanation
maxTFcount	The maximum number of different transport formats that can be included in the Transport format set for one transport channel.
maxRM	The maximum number that could be set as rate matching attribute for a transport channel.
maxTTIcount	The amount of different TTI that are possible for that transport format is.

9.2.1.65 TrCH Source Statistics Descriptor

Defines the statistics of the data transmitted in the transport channel. This information may be used in reserving resources in the DRNS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TrCH Source Statistics Descriptor			ENUMERATED(Speech, RRC, Unknown, …)	"Speech" = Statistics of the data corresponds to speech. "RRC" = Statistics of the data corresponds to RRC signalling "Unknown" = The statistics of the data is unknown

9.2.1.66 UARFCN

The UTRA Absolute Radio Frequency Channel Number defines the carrier.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UARFCN			INTEGER(0..16383, …)	Corresponds to: 0.0Hz.. 3276.6MHz see ref. [6] and ref. [7].

9.2.1.66A UE Identity

The *UE Identity* IE identifies the UE by one of its Permanent NAS Identifier.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *UE Identity*	M			
>*IMSI*				
>>IMSI	M		9.2.1.31	
>*IMEI*				
>>IMEI	M		9.2.1.30T	
>*IMEISV*				
>>IMEISV	M		9.2.1.30U	

9.2.1.67 UL FP Mode

This parameter defines if normal or silent mode of the Frame Protocol shall be used for the UL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL FP Mode			ENUMERATED(Normal, Silent,…)	

9.2.1.68 UL Interference Level

Void

9.2.1.68A Uncertainty Ellipse

This IE contains the uncertainty ellipse used to describe a possible shape of the geographical area of a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uncertainty semi-major	M		INTEGER(0..127)	The uncertainty "r" is derived from the "uncertainty code" k by $r = 10 \times (1.1^k - 1)$
Uncertainty semi-minor	M		INTEGER(0..127)	The uncertainty "r" is derived from the "uncertainty code" k by $r = 10 \times (1.1^k - 1)$
Orientation of major axis	M		INTEGER(0..179)	The relation between the IE value (N) and the angle (a) in degrees it describes is $2N \le a < 2(N+1)$. The values 90..179 shall not be used.

9.2.1.68B Unidirectional DCH Indicator

The *Unidirectional DCH Indicator* IE indicates that the DCH is unidirectional.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Unidirectional DCH Indicator			ENUMERATED (Downlink DCH only, Uplink DCH only)	

9.2.1.69 Uplink SIR

The UL SIR indicates a received UL SIR.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uplink SIR			INTEGER (-82..173)	Value = Uplink SIR/10 Unit dB Range -8.2..+17.3 Step 0.1 dB

9.2.1.70 URA ID

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
URA ID			INTEGER(0 ..65 535)	

9.2.1.70A UTRAN Access Point Position

The UTRAN Access Point Position indicates the exact geographical position of the base station antenna.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Latitude Sign	M		ENUMERATED(North, South)	
Degrees of Latitude	M		INTEGER($0..2^{23}-1$)	The IE value (N) is derived by this formula: $N \leq 2^{23} \ X \ /90 < N+1$ X being the latitude in degree $(0°.. 90°)$
Degrees of Longitude	M		INTEGER($-2^{23}..2^{23}-1$)	The IE value (N) is derived by this formula: $N \leq 2^{24} \ X \ /360 < N+1$ X being the longitude in degree $(-180°..+180°)$

9.2.1.70B URA Information

The *URA Information* IE contains URA Information for one cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
URA ID	M		9.2.1.70		–	
Multiple URAs Indicator	M		9.2.1.41		–	
RNCs with Cells in the Accessed URA		*0 .. <maxRNCinURA-1>*		Other RNCs having at least one cell in the URA identified by the *URA ID* IE.	–	
>RNC-ID	M		9.2.1.50	If the *Extended RNC-ID* IE is included in the *URA Information* IE, the *RNC-ID* IE shall be ignored.	–	

>Extended RNC-ID	O		9.2.1.50a	The *Extended RNC-ID* IE shall be used if the RNC identity has a value larger than 4095.	YES	reject

Range Bound	Explanation
maxRNCinURA	Maximum number of RNC in one URA.

9.2.1.70C User Plane Congestion Fields Inclusion

The *User Plane Congestion Fields Inclusion* IE is used by the DRNC to indicate to the SRNC to include in the HS-DSCH Data Frames the User Plane fields related to TNL Congestion Control for HSDPA (namely the Frame Sequence Number and the DRT, see [32]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
User Plane Congestion Fields Inclusion			ENUMERATED (Shall be included)	

9.2.1.71 UTRAN Cell Identifier (UC-ID)

The UC-ID (UTRAN Cell identifier) is the identifier of a cell in one UTRAN.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RNC-ID	M		9.2.1.50	If the *Extended RNC-ID* IE is included in the *UC-ID* IE, the *RNC-ID* IE shall be ignored.
C-ID	M		9.2.1.6	
Extended RNC-ID	O		9.2.1.50a	The *Extended RNC-ID* IE shall be used if the RNC identity has a value larger than 4095.

9.2.1.72 Neighbouring TDD Cell Information LCR

The *Neighbouring TDD Cell Information LCR* IE provides information for 1.28Mcps TDD cells that are neighbouring cells to a cell in the DRNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Neighbouring TDD Cell Information LCR		*1..<maxno ofLCRTD Dneighbo urs>*			–	
>C-ID	M		9.2.1.6		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>UARFCN	M		9.2.1.66	Corresponds to Nt in ref. [7]	–	
>Frame Offset	O		9.2.1.30		–	
>Cell Parameter ID	M		9.2.1.8		–	
>SCTD Indicator	M		9.2.1.78		–	
>Cell Individual Offset	O		9.2.1.7		–	
>DPCH Constant Value	O		9.2.1.23		–	
>PCCPCH Power	O		9.2.1.43		–	
>Restriction State Indicator	O		9.2.1.48C		–	
>Coverage Indicator	O		9.2.1.12G		YES	ignore
>Antenna Co-location Indicator	O		9.2.1.2C		YES	ignore
>HCS Prio	O		9.2.1.30N		YES	ignore
>Cell Capability Container TDD LCR	O		9.2.3.1b		YES	ignore
> SNA Information	O		9.2.1.52Ca		YES	ignore
>Multiple PLMN List	O		9.2.1.117		YES	ignore

Range bound	Explanation
maxnoofLCRTDDneighbours	Maximum number of neighbouring 1.28Mcps TDD cell for one cell.

9.2.1.73   Permanent NAS UE Identity

This element is used to identify the UE in UTRAN.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Choice *Permanent NAS UE Identity*				
>*IMSI*				
>>IMSI	M		9.2.1.31	

9.2.1.74   SFN-SFN Measurement Reference Point Position

The SFN-SFN Measurement Reference Point Position indicates the exact geographical position of the SFN-SFN measurement reference point. The altitude shall be included when available.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Geographical Coordinates	M		9.2.1.30F	
Altitude and direction	O		9.2.1.2B	

9.2.1.75 UTRAN Access Point Position with Altitude

The UTRAN Access Point Position with Altitude indicates the exact geographical position of the base station antenna. The altitude shall be included when available.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Geographical Coordinates	M		9.2.1.30F	
Altitude and direction	O		9.2.1.2B	

9.2.1.76 SFN-SFN Measurement Time Stamp

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Mode*	M			
>*FDD*				
>>SFN	M		9.2.1.52A	Indicates the SFN of the reference cell at which the measurement has been performed.
>*TDD*				
>>SFN	M		9.2.1.52A	Indicates the SFN of the reference cell at which the measurement has been performed.
>>Time Slot	M		9.2.1.56	Indicates the Time Slot of the reference cell at which this measurement has been performed.

9.2.1.77 SFN-SFN Value

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Mode*	M			
>*FDD*				
>>SFN-SFN	M		INTEGER(0 .. 614399)	According to mapping in [23].
>*TDD*				1.28Mcps or 3.84Mcps TDD
>>SFN-SFN	M		INTEGER(0 .. 40961)	According to mapping in [24].
>*TDD 7.68Mcps*				
>>SFN-SFN	M		INTEGER(0	According to mapping in

			.. 81923)	[24].

9.2.1.78 SCTD Indicator

Indicates if SCTD antenna diversity is applied or not to the PCCPCH and PICH [3.84Mcps TDD].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SCTD Indicator			ENUMERATED(active, inactive)	

9.2.1.79 Congestion Cause

The *Congestion Cause* IE indicates the cause of a congestion situation:

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Congestion Cause			ENUMERATED (UTRAN Dynamic Resources, UTRAN Semistatic Resources, …)	

The meaning of the different congestion cause values is described in the following table:

Congestion cause	Meaning
UTRAN Dynamic Resources	UL and/or DL resource congestion situation mainly caused by the UL and/or DL UTRAN Dynamic Resources. This type of congestion situation is, e.g. related to the limitation of the DL transmitted carrier power of the cell(s), or the UL Interference situation in the concerned cell(s).
UTRAN Semistatic Resources	UL and/or DL resource congestion situation mainly related to UTRAN Semistatic Resources (e.g. channelisation codes, Node-B resources, ..).

9.2.1.80 TMGI

The TMGI is the unique identifier for an MBMS bearer service, see ref.[1].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PLMN Identity	M		OCTET STRING (3)	- digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n -The PLMN Identity consists of 3 digits from MCC

				followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case of a 3 digit MNC).
Service ID	M		OCTET STRING (3)	

9.2.1.81 Transmission Mode

The *Transmission Mode* IE indicates the transmission mode used for MBMS data transmission in one cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmission Mode			ENUMERATED(PTP, PTM, Not Provided).	PTP: The MBMS data is transmitted through point to point channel. PTM: The MBMS data is transmitted through point to multipoint channel. Not Provided: The MBMS data is not transmitted in the DRNC.

9.2.1.82 Access Point Name

The APN and IP Multicast Address uniquely identify an MBMS bearer service.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
APN	M		OCTET STRING (1..255)	

9.2.1.83 IP Multicast Address

The APN and IP Multicast Address uniquely identify an MBMS bearer service.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IP Multicast Address	M		OCTET STRING (4..16)	

9.2.1.84 MBMS Bearer Service Full Address

This IE provides the full address of an MBMS Bearer Service otherwise identified by its TMGI.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Access Point Name	M		9.2.1.82	
IP Multicast Address	M		9.2.1.83	

9.2.1.85 Provided Information

This IE contains the relevant data concerned the direct information transfer procedure. *Provided Information* IE shall include at least one of the following IEs.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
MBMS Channel Type Information	O		9.2.1.86			
MBMS Preferred Frequency Layer Information	O		9.2.1.87			
UpPCH Information LCR	O		9.2.3.55	Applicable to 1.28Mcps TDD only .	YES	ignore

9.2.1.86 MBMS Channel Type Information

This IE contains the channel types of a MBMS Bearer Service indicated by *TMGI* IE in one or more cells. *MBMS Channel Type Information* IE shall include at least one *C-ID* IE and *Affected UE Information for MBMS* IE in the *PTM Cell List* IE, the *PTP Cell List* IE and/or *Not Provided Cell List* IE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TMGI	M		9.2.1.80	
PTM Cell List		*0..<maxnoofCells>*		
>C-ID	M		9.2.1.6	
>Affected UE Information for MBMS		*0..<maxnoofUEs>*		
>>S-RNTI	M		9.2.1.53	
PTP Cell List		*0.. <maxnoofCells>*		
>C-ID	M		9.2.1.6	
>Affected UE Information for MBMS		*0..<maxnoofUEs>*		
>>S-RNTI	M		9.2.1.53	
Not Provided Cell List		*0.. <maxnoofCells>*		
>C-ID	M		9.2.1.6	
>Affected UE Information for MBMS		*0..<maxnoofUEs>*		

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TMGI	M		9.2.1.80	
>>S-RNTI	M		9.2.1.53	

Range Bound	Explanation
maxnoofCells	Maximum number of cells that can be indicated in the corresponding IE.
maxnoofUEs	Maximum number of S-RNTIs that can be indicated per cell in the respective IEs.

9.2.1.87   MBMS Preferred Frequency Layer Information

This IE contains the preferred frequency layer of a MBMS Bearer Service indicated by *TMGI* IE in one or more cells that host at least one CELL_DCH UE whose UE Link contains the concerned MBMS Bearer Service and whose SRNC is different from the CRNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TMGI	M		9.2.1.80	
Preferred Frequency Layer Information				
>Default Preferred Frequency	M		UARFCN 9.2.1.66	
>Additional Preferred Frequency		*0..<maxnoofAddFr eq>*		Preferred frequencies different from default preferred frequency
>>DL UARFCN	M		UARFCN 9.2.1.66	
>>Corresponding Cells		*1..<maxnoofCellsP erFreq>*		
>>>C-ID	M		9.2.1.6	

Range Bound	Explanation
maxnoofAddFreq	Maximum number of additional preferred frequencies different from default preferred frequency in an RNC.
maxnoofCellsPerFreq	Maximum number of cells whose preferred frequency is the same.

9.2.1.88   E-DCH DDI Value

The *E-DCH DDI Value* IE is the Data Description Indicator value identifying a unique combination of E-DCH MAC-d Flow ID and MAC-d PDU Size.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH DDI Value			INTEGER (0..62)	

9.2.1.89 E-DCH MAC-d Flow Multiplexing List

The E-DCH MAC-d Flow Multiplexing List indicates which E-DCH MAC-d flows are allowed to be multiplexed within a MAC-e PDU with the MAC-d flow it is associated to. If the E-DCH MAC-d Flow Multiplexing List is signalled for an E-DCH MAC-d flow it indicates that E-DCH MAC-d PDUs of this E-DCH MAC-d flow are the first E-DCH MAC-d PDU in the MAC-e PDU. If an E-DCH MAC-d Flow Multiplexing List was already received within a previous Radio Link related procedure and no E-DCH MAC-d Flow Multiplexing List is signalled for a E-DCH MAC-d flow, the DRNS shall continue to use the previously received one. If no E-DCH MAC-d Flow Multiplexing List was ever received for an E-DCH MAC-d flow no restrictions shall be assumed for the related E-DCH MAC-d flow for multiplexing E-DCH MAC-d flows.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH MAC-d Flow Multiplexing List			BIT STRING (8)	The first Bit corresponds to E-DCH MAC-d flow 0, the second bit corresponds to E-DCH MAC-d flow 1, etc.

9.2.1.90 E-DCH MAC-d Flows To Delete

The *E-DCH MAC-d Flows To Delete* IE is used for the removal of E-DCH MAC-d flows.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH MAC-d Flows To Delete		*1..<maxnoofEDCH MACdFlows>*		
>E-DCH MAC-d Flow ID	M		9.2.1.91	

Range Bound	Explanation
maxnoofEDCHMACdFlows	Maximum number of E-DCH MAC-d flows

9.2.1.91 E-DCH MAC-d Flow ID

The *E-DCH MAC-d Flow ID* IE is the unique identifier for one MAC-d flow on E-DCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH MAC-d Flow ID			INTEGER (0.. maxnoofEDCHMACdFlows-1)	

Range Bound	Explanation
maxnoofEDCHMACdFlows	Maximum number of E-DCH MAC-d flows

9.2.1.92   E-DCH Logical Channel Information

The *E-DCH Logical Channel Information* IE is used for the establishment of E-DCH Logical Channels.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-DCH Logical Channel Information		*1..<maxnooflogicalchannels>*				
>Logical Channel ID	M		9.2.1.97			
>Scheduling Priority Indicator	M		9.2.1.51A			
>Scheduling Information	M		9.2.1.101			
>MAC-es Guaranteed Bit Rate	O		9.2.1.98			
>E-DCH DDI Value	M		9.2.1.88	If more than 1 MAC-d PDU size is configured for this Logical Channel, the different sizes will use subsequent DDI values starting from this DDI value. Value "0x3F" is reserved		
>MAC-d PDU Size List		*1..< maxnoofMACdPDUSize*				
>>MAC-d PDU Size	M		9.2.1.34A			
>MAC-es Maximum Bit Rate LCR	O		9.2.3.57	1.28Mcps TDD only	YES	ignore

Range Bound	Explanation
maxnooflogicalchannels	Maximum number of logical channels
maxnoofMACdPDUSize	Maximum number of MAC-d PDU size per Logical Channels

9.2.1.93 E-DCH Logical Channel To Modify

The *E-DCH Logical Channel To Modify* IE is used for the reconfiguration of E-DCH Logical Channels.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-DCH Logical Channel Information		*1..<maxnooflogicalchannels>*				
>Logical Channel ID	M		9.2.1.97			
>Scheduling Priority Indicator	O		9.2.1.51A			
>Scheduling Information	O		9.2.1.101			
>MAC-es Guaranteed Bit Rate	O		9.2.1.98			
>E-DCH DDI Value	O		9.2.1.88	If more than 1 MAC-d PDU size is configured for this Logical Channel, the different sizes will use subsequent DDI values starting from this DDI value. Value "0x3F" is reserved		
>MAC-d PDU Size List		*0..< maxnoofMACdPDUSize*				
>>MAC-d PDU Size	M		9.2.1.34A			
>MAC-es Maximum Bit Rate LCR	O		9.2.3.57	1.28Mcps TDD only	YES	ignore

Range Bound	Explanation
maxnooflogicalchannels	Maximum number of logical channels
maxnoofMACdPDUSize	Maximum number of MAC-d PDU size per Logical Channels

9.2.1.94 E-RNTI

The *E-RNTI* IE is needed for the UE (or UE group) specific CRC in E-AGCH, see ref. [52].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-RNTI			INTEGER	

			(0..65535)	

9.2.1.95 E-DCH Processing Overload Level

The *E-DCH Processing Overload Level* IE defines the threshold that determines when DRNS shall indicate processing issue problems to the SRNC.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
E-DCH Processing Overload Level			INTEGER (0..10,…)	Number of consecutive TTIs. The value "0" is a special value, that means infinity, i.e. when this value is used, the DRNS shall never indicate processing issue to the RNC.

9.2.1.96 E-DCH Power Offset for Scheduling Info

The E-DCH Power Offset for Scheduling Info is used to calculate the [FDD - E-DPDCH][TDD – E-PUCH] power for transmision of scheduling information without any MAC-d PDUs.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH Power Offset for Scheduling Info			INTEGER (0..6)	Unit: dB Step: 1 dB

9.2.1.97 Logical channel ID

The *Logical Channel ID* IE is used to identify a E-DCH logical channel in Scheduling Information that is sent over Uu.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Logical Channel ID		INTEGER (1..15)		

9.2.1.98 MAC-es Guaranteed Bit Rate

The *MAC-es Guaranteed Bit Rate* IE indicates the guaranteed number of bits per second to be delivered over the air interface under normal operating conditions (provided there is data to deliver) for which the Node B shall provide sufficient UL resources. If the *MAC-es Guaranteed Bit Rate* IE is received with the value set to 0 during RL set up or modification, no guarantee is applied.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
MAC-es Guaranteed Bit Rate			INTEGER $(0..2^{24}-1, …, 2^{24}..256,000,000)$	Unit: bit/s

9.2.1.99 MAC-e Reset Indicator

Indicates the MAC-e Reset is performed in UE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MAC-e Reset Indicator			ENUMERATED (MAC-e Reset)	

9.2.1.100 Maximum Number of Retransmissions for E-DCH

The *Maximum Number of Retransmissions for E-DCH* IE specifies the upper boundary for retransmissions for a single MAC-d flow.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Number of Retransmissions for E-DCH			INTEGER (0..15)	

9.2.1.101 Scheduling Information

The *Scheduling Information* IE indicates whether the scheduling information is included for the E-DCH logical channel or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Scheduling Information			ENUMERATED (Included, Not Included)	

9.2.1.102 DGANSS Corrections

This IE contains DGANSS corrections.

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
DGANSS Reference Time	M		INTEGER(0..3570 by step of 30)	Seconds. Time in GNSS system time (modulo 3600 s) when the DGANSS corrections were calculated
DGANSS Information		*1 to <maxSgnType>*		
>GANSS Signal ID	O		9.2.1.121	

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
>Status/Health	M		ENUMERATED(UDRE scale 1.0, UDRE scale 0.75, UDRE scale 0.5, UDRE scale 0.3, UDRE scale 0.2, UDRE scale 0.1, no data, invalid data)	
>DGANSS Signal Information	C-*Status/Health*	*1 to <maxGANSSSat>*		If the Cipher information is included these fields are ciphered
>>Sat ID	M		INTEGER(0..63)	Identifies the satellite and is equal to (SV ID No - 1)
>>IOD	M		BIT STRING(10)	
>>UDRE	M		ENUMERATED(UDRE ≤ 1.0 m, 1.0m < UDRE ≤ 4.0m, 4.0m < UDRE ≤ 8.0m, 8.0m < UDRE)	The value in this field shall be multiplied by the UDRE Scale Factor in the IE Status/Health to determine the final UDRE estimate for the particular satellite.
>>PRC	M		INTEGER(-2047..2047)	Scaling factor 0.32 meters
>>RRC	M		INTEGER(-127..127)	Scaling factor 0.032 meters/sec

Condition	Explanation
Status/Health	This IE shall be present if the *Status/Health* IE value is not equal to "no data" or "invalid data".

Range Bound	Explanation
maxGANSSSat	Maximum number of satellites for which data is included in the IE
maxSgnType	Maximum number of signals for which data is included in the IE

9.2.1.103 GANSS Almanac

This IE contains a reduced-precision subset of the ephemeris and clock correction parameters.

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
Week Number	M		INTEGER(0. .255)	Almanac reference week , number of weeks since the beginning of GANSS specific system time (mod 256)
CHOICE *Almanac Model*	M			
>*Keplerian Parameters*				
>>T_{oa}	M		INTEGER(0. .255)	Scaling factor 2^{12} s Reference time of almanac within week in GANSS TOD time base
>>IOD_a	M		INTEGER(0. .3)	Issue-Of –Data, common to all satellites
>>**Satellite Information KP**		*1 to <maxGANSSSatAlmanac>*		Almanacs are in the order of the SV IDs, the smallest ID first.
>>>Sat ID	M		INTEGER(0. .63)	Identifies the satellite and is equal to (SV ID No - 1)
>>>e	M		BIT STRING(11)	Eccentricity, dimensionless [53]
>>>δi	M		BIT STRING(11)	semi-circles [53]
>>>OMEGADOT	M		BIT STRING(11)	Longitude of Ascending Node of Orbit Plane at Weekly Epoch (semi-circles/sec) [53]
>>>SV Health KP	M		BIT STRING(4)	dimensionless
>>>delta $A^{1/2}$	M		BIT STRING(17)	Semi-Major Axis delta (meters)$^{1/2}$ [53]
>>>$OMEGA_0$	M		BIT STRING(16)	Longitude of Ascending Node of Orbit Plane at Weekly Epoch (semi-circles) [53]
>>>M_0	M		BIT STRING(16)	Mean Anomaly at Reference Time (semi-circles) [53]
>>>ω	M		BIT STRING(16)	Argument of Perigee (semi-circles) [53]
>>>af_0	M		BIT STRING(14)	Seconds [53]
>>>af_1	M		BIT STRING(11)	sec/sec [53]

Range Bound	Explanation
maxGANSSSatAlmanac	Maximum number of satellites for which data is included in the IE

9.2.1.104   GANSS Clock Model

The IE contains fields needed to model the GANSS clock parameters.

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
Satellite Clock Model		*1 to <maxGANSSClockMod>*		There may be more than one clock model included if defined in SIS ICD (e.g. two for Galileo)
>t_{oc}	M		BIT STRING(14)	defined in [53]
>a_{i2}	M		BIT STRING(12)	defined in [53]
>a_{i1}	M		BIT STRING(18)	defined in [53]
>a_{i0}	M		BIT STRING(28)	defined in [53]
>T_{GD}	O		BIT STRING(10)	defined in [53]
>Model ID	O		INTEGER(0..1)	Coded as defined in [16].

Range bound	Explanation
maxGANSSClockMod	Maximum number of satellite clock models for which data is included in the IE.

9.2.1.105   GANSS Ionospheric Model

The IE contains fields needed to model the propagation delays of the GANSS signals through the ionosphere.

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
a_{i0}	M		BIT STRING(12)	This parameter is used as defined in [53]
a_{i1}	M		BIT STRING(12)	This parameter is used as defined in [53]
a_{i2}	M		BIT STRING(12)	This parameter is used as defined in [53]
GANSS Ionosphere Regional Storm Flags		0..1		
>Storm Flag 1	M		BOOLEAN	This parameter is used as defined in [53]
>Storm Flag 2	M		BOOLEAN	This parameter is used as defined in [53]
>Storm Flag 3	M		BOOLEAN	This parameter is used as defined in [53]
>Storm Flag 4	M		BOOLEAN	This parameter is used as defined in [53]
>Storm Flag 5	M		BOOLEAN	This parameter is used as defined in [53]

9.2.1.106   GANSS Navigation Model

Void.

9.2.1.107   GANSS Orbit Model

This IE contains information for GANSS orbit model parameters.

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
CHOICE *Orbit Model*	M			
>*Keplerian Parameters*				
>>t_{oe}	M		BIT STRING(14)	Time-of-Ephemeris in seconds, scale factor 60 [53]
>>ω	M		BIT STRING(32)	Argument of Perigee (semi-circles) [53]
>>Δn	M		BIT STRING(16)	Mean Motion Difference From Computed Value (semi-circles/sec) [53]
>>M_0	M		BIT STRING(32)	Mean Anomaly at Reference Time (semi-circles) [53]
>>OMEGAdot	M		BIT STRING(24)	Longitude of Ascending Node of Orbit Plane at Weekly Epoch (semi-circles/sec) [53]
>>e	M		BIT STRING(32)	Eccentricity, scale factor 2^{-33} [53]
>>Idot	M		BIT STRING(14)	Rate of Inclination Angle (semi-circles/sec) [53]
>>sqrtA	M		BIT STRING(32)	Least significant bits of Semi-Major Axis in (meters)$^{1/2}$, scale factor 2^{-19} [53]
>>i_0	M		BIT STRING (32)	Inclination Angle at Reference Time (semi-circles) [53]
>>$OMEGA_0$	M		BIT STRING(32)	Longitude of Ascending Node of Orbit Plane at Weekly Epoch (semi-circles) [53]
>>C_{rs}	M		BIT STRING(16)	Amplitude of the Sine Harmonic Correction Term to the Orbit Radius (meters) [53]
>>C_{is}	M		BIT STRING(16)	Amplitude of the Sine Harmonic Correction Term To The Angle Of Inclination (radians) [53]
>>C_{us}	M		BIT STRING(16)	Amplitude of the Sine Harmonic Correction Term To The Argument Of Latitude (radians) [53]
>>C_{rc}	M		BIT STRING(16)	Amplitude of the Cosine Harmonic Correction Term to the Orbit Radius (meters) [53]
>>C_{ic}	M		BIT STRING(16)	Amplitude of the Cosine Harmonic Correction Term To The Angle Of Inclination (radians) [53]
>>C_{uc}	M		BIT STRING(16)	Amplitude of the Cosine Harmonic Correction Term To The Argument Of Latitude (radians) [53]

9.2.1.108   GANSS Real Time Integrity

This IE contains parameters that describe the real-time status of the GANSS constellation.

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
Satellite Information		*1 to <maxGANSSSat>*		
>Bad GANSS Sat ID	M		INTEGER(0..63)	Identifies the satellite and is equal to (SV ID No - 1).
>Bad GANSS Signal ID	O		BIT STRING(8)	Coded as defined in [16].

Range Bound	Explanation
maxGANSSSat	Maximum number of satellites for which data is included in the IE

9.2.1.109 GANSS Receiver Geographical Position (GANSS RX Pos)

The *GANSS Receiver Geographical Position* IE is used to identify the geographical coordinates of a GANSS receiver relevant for a certain Information Exchange Object.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Latitude Sign	M		ENUMERATED (North, South)	
Degrees of Latitude	M		INTEGER $(0..2^{31}-1)$	The IE value (N) is derived by this formula: $N \leq 2^{31} X /90 < N+1$ X being the latitude in degree $(0°.. 90°)$
Degrees of Longitude	M		INTEGER $(-2^{31}..2^{31}-1)$	The IE value (N) is derived by this formula: $N \leq 2^{32} X /360 < N+1$ X being the longitude in degree $(-180°..+180°)$
Direction of Altitude	M		ENUMERATED (Height, Depth)	
Altitude	M		INTEGER $(0..2^{15}-1)$	The relation between the value (N) and the altitude (a) in meters it describes is $N \leq a < N+1$, except for $N=2^{15}-1$ for which the range is extended to include all greater values of (a).

9.2.1.110 GANSS Time Model

The *GANSS Time Model* IE contains a set of parameters needed to relate GANSS time to selected time reference indicated by GNSS_TO_ID.

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
GANSS Time Model Reference Time	M		INTEGER(0 ..37799)	GANSS reference time (modulo 1 week) in seconds. The scale factor is 2^4
T_{A0}	M		INTEGER(- 2147483648. .2147483647	Seconds, scale factor 2^{-35}

			)	
T_{A1}	O		INTEGER (-8388608..8388607)	sec/sec, scale factor 2^{-51}
T_{A2}	O		INTEGER (-64..63)	sec/sec^2, scale factor 2^{-68}
GNSS_TO_ID	M		ENUMERATED(GPS, …)	
Week Number	O		INTEGER(0..8191)	Reference week of GANSS Time Model

9.2.1.111 GANSS UTC Model

The *GANSS UTC Model* IE contains a set of parameters needed to relate GANSS time to Universal Time Coordinate (UTC).

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
A_1	M		BIT STRING(24)	sec/sec [53]
A_0	M		BIT STRING(32)	seconds [53]
t_{ot}	M		BIT STRING(8)	seconds [53]
WN_t	M		BIT STRING(8)	weeks [53]
Δt_{LS}	M		BIT STRING(8)	seconds [53]
WN_{LSF}	M		BIT STRING(8)	weeks [53]
DN	M		BIT STRING(8)	days [53]
Δt_{LSF}	M		BIT STRING(8)	seconds [53]

9.2.1.112 $T_{UTRAN-GANSS}$ Accuracy Class

The *$T_{UTRAN-GANSS}$ Accuracy Class* IE indicates the accuracy class of the UTRAN GANSS Timing of Cell Frames for UE Positioning measurement.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
$T_{UTRAN-GANSS}$ Accuracy Class			ENUMERATED (Accuracy Class A, Accuracy Class B, Accuracy Class C,…)	More information about Measurement Accuracy Class is included in [23].

9.2.1.113 T$_{UTRAN\text{-}GANSS}$ Measurement Threshold Information

The *T$_{UTRAN\text{-}GANSS}$ Measurement Threshold Information* IE defines the related thresholds for UTRAN GANSS Timing of Cell Frames for UE Positioning measurements shall trigger the Event On Modification.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
T$_{UTRAN\text{-}GANSS}$ Change Limit	O		INTEGER(1 ..256)	Change of T$_{UTRAN\text{-}GANSS}$ value compared to previously reported value, which shall trigger a new report. Unit in 1/16 chip.
Predicted T$_{UTRAN\text{-}GANSS}$ Deviation Limit	O		INTEGER(1 ..256)	Deviation of the Predicted T$_{UTRAN\text{-}GANSS}$ from the latest measurement result, which shall trigger a new report. Unit in 1/16 chip.

9.2.1.114 T$_{UTRAN\text{-}GANSS}$ Measurement Value Information

The T$_{UTRAN\text{-}GANSS}$ *Measurement Value Information* IE indicates the measurement results related to the UTRAN GANSS Timing of Cell Frames for UE Positioning measurements.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
T$_{UTRAN\text{-}GANSS}$	M			Indicates the UTRAN GANSS Timing of Cell Frames for UE Positioning. According to mapping in [23] and [24]; significant values range from 0 to 37158911999999.
>MS	M		INTEGER(0 ..16383)	Most Significant Part
>LS	M		INTEGER(0 ..429496729 5)	Least Significant Part
T$_{UTRAN\text{-}GANSS}$ Quality	O		INTEGER(0 ..255)	Indicates the standard deviation (std) of the T$_{UTRAN\text{-}GANSS}$ measurements in 1/16 chip. T$_{UTRAN\text{-}GANSS}$ Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported T$_{UTRAN\text{-}GANSS}$ Value, where x is the reported T$_{UTRAN\text{-}GANSS}$ Value and $\mu = E[x]$ is the expectation value of x.
T$_{UTRAN\text{-}GANSS}$ Drift Rate	M		INTEGER(- 50..50)	Indicates the T$_{UTRAN\text{-}GANSS}$ drift rate in 1/256 chip per second. A positive value indicates that the UTRAN clock is running at a lower frequency than GANSS clock.
T$_{UTRAN\text{-}GANSS}$ Drift Rate	O		INTEGER(0	Indicates the standard deviation (std) of the T$_{UTRAN\text{-}GANSS}$ drift

Quality			..50)	rate measurements in 1/256 chip per second. $T_{UTRAN-GANSS}$ Drift Rate Quality $= \sqrt{E[(x-\mu)^2]}$ = std of reported $T_{UTRAN-GANSS}$ Drift Rate, where x is the reported $T_{UTRAN-GANSS}$ Drift Rate and $\mu = E[x]$ is the expectation value of x.

9.2.1.115   GANSS Reference Time

Void.

9.2.1.116   HARQ Memory Partitioning

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE *HARQ Memory Partitioning*		*1*			–	
>*Implicit*					–	
>>Number of Processes	M		INTEGER (1..8,...12,14,16)	For HARQ process IDs going from 0 to "Number of Processes" – 1 the Total number of soft channel bits [42] is partitioned equally between all HARQ processes according to the rules in [16].	–	
>*Explicit*					–	
>>HARQ Memory Partitioning Infomation		*1..<maxnoofHARQprocesses>*		The first instance of the parameter corresponds to HARQ process with identifier 0, the second instance to HARQ process with identifier 1, and so on.	–	
>>>Process Memory Size	M		9.2.1.49D	See [16]	–	
>>HARQ Memory Partitioning		*0, 4, 6 or 8*		FDD only The 1st instance	GLOBAL	ignore

Information Extension For MIMO				corresponds to HARQ process with identifier set to "maxnoofHARQ processes", the 2nd instance to HARQ process with identifier set to "maxnoofHARQ processes+1", and so on.		
>>>Process Memory Size	M		9.2.1.49D	See [16]	−	

Range Bound	Explanation
MaxnoofHARQprocesses	Maximum number of HARQ processes for one UE [FDD - per stream (the maximum number of HARQ processes per UE is 2 * *MaxnoofHARQprocesses* in dual stream transmission mode)]

9.2.1.117   Multiple PLMN List

This information element contains a list of PLMN identities, which identifies the broadcasted PLMN Identities in MOCN and GWCN shared network configurations. The mandatory PLMN Identity in the MIB (called common PLMN in [54]) is the first PLMN.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
PLMN Identity	M		OCTET STRING (SIZE (3))	- digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n -The PLMN identity consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case of a 3 digit MNC).
List of PLMNs		*0 .. <maxNrOfBroadcastPLMNs>*		
>PLMN Identity	M		OCTET STRING (SIZE (3))	- digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding

| | | | | digit 2n

-The PLMN identity consists of 3 digits from MCC followed by either
-a filler plus 2 digits from MNC (in case of 2 digit MNC) or
-3 digits from MNC (in case of a 3 digit MNC). |

Range bound	Explanation
maxNrOfBroadcastPLMNs	Maximum number of additional PLMN identitys that can be broadcasted in a cell involved in a MOCN or GWCN Shared Network configuration. The value for maxNrOfBroadcastPLMNs is 5.

9.2.1.118   GANSS Data Bit Assistance

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
GANSS TOD	M		INTEGER(0..59,…)	Refererence time (modulo 1 minute) of the first bit of the data in *Data Bits* IE, in seconds.
Data Bit Assistance List		1..<*maxGANSSSat*>		
>Sat ID	M		INTEGER(0..63)	Identifies the satellite and is equal to (SV ID No - 1)
>Data Bit Assistance Sgn List		1..<*maxSgnType*>		
>>GANSS Signal ID	M		9.2.1.121	
>>Data Bits	M		BIT STRING(1..1024)	Raw data bits as transmitted from a specific satellite at the time indicated by GANSS_TOD.

Range Bound	Explanation
maxGANSSSat	Maximum number of satellites for which data is included in the IE
maxSgnType	Maximum number of GANSS signals included in the IE

9.2.1.119   GANSS ID

This IE defines a particular GANSS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
GANSS ID	M		INTEGER(0..7,…)	Defines the GANSS and is coded as defined in [16]. All values are reserved in this version of the protocol.

9.2.1.120 GANSS Navigation Model And Time Recovery

This IE contain information required to manage the transfer of precise navigation data to the GANSS-capable UE.

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
GANSS Transmission Time	M		9.2.1.122	GANSS Time when the Navigation model has been retrieved
Non-Broadcast Indication	O		ENUMERATED(true)	If this IE is present, GANSS navigation model is not derived from satellite broadcast. See NOTE 1
Satellite Information		*1 to <maxGANSSSat>*		
>Sat ID	M		INTEGER(0..63)	Identifies the satellite and is equal to (SV ID No - 1).
>SV Health	M		BIT STRING(5)	Coded as defined in [53]
>IOD	M		BIT STRING(10)	
>GANSS Clock Model	M		9.2.1.104	
>GANSS Orbit Model	M		9.2.1.107	

Condition	Explanation
Orbit model	The IE shall be present if the *GANSS Orbit Model* IE indicates "Keplerian Parameters".

Range bound	Explanation
maxGANSSSat	Maximum number of satellites for which data is included in the IE.

NOTE 1 : The Non-Broadcast Indication allows to inform that the navigation model is not bit-to-bit the one broadcast by the satellite. If it is set to 1, the UE is informed that techniques such as data wiping off applied to the navigation model may not work for instance.

9.2.1.121 GANSS Signal ID

This IE defines a specific signal within a particular GANSS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
GANSS Signal ID	M		INTEGER(0..7,…)	Coded as defined in [16].

9.2.1.122   GANSS Transmission Time

This IE indicates the GANSS Transmission Time.

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
GANSS Day	O		INTEGER(0 ..8191)	The sequential number of days from the origin of the GNSS system time (indicated by the GANSS_ID given in the *Requested Data Value* IE) modulo 8192 days (about 22 years).
GANSS TOD	M		INTEGER(0 ..86399)	GANSS Time of Day in seconds

9.2.2   FDD Specific Parameters

This subclause contains parameters that are specific to FDD.

9.2.2.a   ACK-NACK Repetition Factor

The *ACK-NACK Repetition Factor* IE indicates the consecutive repetition of the ACK and NACK.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
ACK-NACK Repetition Factor			INTEGER (1..,4,...)	Step: 1

9.2.2.b   ACK Power Offset

The *ACK Power Offset* IE indicates Power offset used in the UL between the HS-DPCCH slot carrying HARQ ACK information and the associated DPCCH.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
ACK Power Offset			INTEGER (0..8,…)	According to mapping in ref. [21] subclause 4.2.1.

9.2.2.A   Active Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence activation. For details see ref. [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CM Configuration Change CFN	M		CFN 9.2.1.9	

Transmission Gap Pattern Sequence Status		*0.. <maxTGPS>*		If the group is not present, none of the pattern sequences are activated.
>TGPSI Identifier	M		INTEGER(1 ..<MaxTGPS>)	Establish a reference to the compressed mode pattern sequence. Up to <MaxTGPS> simultaneous compressed mode pattern sequences can be activated.
>TGPRC	M		INTEGER(0 ..511)	The number of transmission gap patterns within the Transmission Gap Pattern Sequence. 0=Infinity.
>TGCFN	M		CFN 9.2.1.9	Connection Frame Number of the first frame of the first pattern 1 within the Transmission Gap Pattern Sequence.

Range bound	Explanation
maxTGPS	Maximum number of active pattern sequences. Value 6.

9.2.2.B   Adjustment Period

Adjustment Period IE defines the period to be used for power balancing.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Adjustment Period			INTEGER (1 .. 256)	Unit: Frames

9.2.2.C   Adjustment Ratio

Adjustment Ratio IE *(Radj)* defines the convergence rate used for the associated Adjustment Period.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Adjustment Ratio			INTEGER (0 .. 100)	The Adjustment Ratio is given with a granularity of 0.01 0 -> 0.00 1 -> 0.01 ... 100 -> 1.00

9.2.2.Ca   Bundling Mode Indicator

The Bundling Mode Indicator indicates whether the bundling shall be done or shall not be done for Iur.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Bundling Mode Indicator			ENUMERATED (Bundling, No bundling)	The value "Bundling" is applicable only when E-TTI indicates "2ms".

9.2.2.D   Cell Capability Container FDD

The Cell Capability Container FDD indicates which functionalities a cell supports.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Capability Container FDD			BIT STRING (32)	Each bit indicates whether a cell supports a particular functionality or not. The value 1 of a bit indicates that the corresponding functionality is supported in a cell and value 0 indicates that the corresponding functionality is not supported in a cell. Each bit is defined as follows. The first bit:Reserved. The second bit: Delayed Activation Support Indicator. The third bit: HS-DSCH Support Indicator. The fourth bit:Reserved. The fifth bit: F-DPCH Support Indicator. The sixth bit: E-DCH Support Indicator. The seventh bit: E-DCH TTI2ms Support Indicator. The eighth bit: E-DCH 2sf2and2sf4 and all inferior SFs Support Indicator. The ninth bit: E-DCH 2sf2 and all inferior SFs Support Indicator. The tenth bit: E-DCH 2sf4 and all inferior SFs Support Indicator. The eleventh bit: E-DCH sf4 and all inferior SFs Support Indicator. The twelveth bit: E-DCH sf8 and all inferior SFs Support Indicator.

| | | | | The thirteenth bit: E-DCH HARQ IR Combining Support Indicator.

The fourteenth bit: E-DCH HARQ Chase Combining Support Indicator.
The fifteenth bit: Continuous Packet Connectivity DTX-DRX Support Indicator.

The sixteenth bit: Continuous Packet Connectivity HS-SCCH less Support Indicator.
The seventeenth bit: MIMO Support Indicator.
The eighteenth bit: SixteenQAM UL Support Indicator.
The nineteenth bit: Flexible MAC-d PDU Size Support Indicator.
The twentieth bit: F-DPCH Slot Format Support Indicator.The twentyfirst bit: SixtyfourQAM DL Support Indicator.

The twentysecond bit: Reserved. The twentythird bit: E-DPCCH Power Boosting Support Indicator.

Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.
Note that Reserved bits are not considered as a spare bit. They shall however be set to 0 by the transmitter and shall be ignored by the receiver. |
|---|---|---|---|---|

9.2.2.E   Cell Portion ID

Cell Portion ID is the unique identifier for a cell portion within a cell. See [11].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Portion ID			INTEGER (0..63,…)	

9.2.2.1   Chip Offset

The Chip Offset is defined as the radio timing offset inside a radio frame. The Chip Offset is used as offset for the DL DPCH relative to the Primary CPICH timing for the DL DPCH or for the F-DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Chip Offset			INTEGER (0..38399)	Unit: Chips

9.2.2.2 Closed Loop Mode1 Support Indicator

The Closed Loop Mode1 Support Indicator indicates whether the particular cell is capable to support Closed loop mode1 or not

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Closed Loop Mode1 Support Indicator			ENUMERA TED(Closed loop mode1 Supported, Closed loop mode1 not supported).	

9.2.2.3 Closed Loop Mode2 Support Indicator

Void.

9.2.2.3A Closed Loop Timing Adjustment Mode

Indicates when the phase/amplitude adjustment is performed in the DL in relation to the receipt of the UL feedback command in case of closed loop mode transmit diversity on DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Closed Loop Timing Adjustment Mode			ENUMERA TED(Offset1 , Offset2,…)	According to [10] subclause 7.1: Offset1 = slot(j+1)mod15 Offset2 = slot(j+2)mod15

9.2.2.4 Compressed Mode Method

Void

9.2.2.4A DCH FDD Information

The *DCH FDD Information* IE provides information for DCHs to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DCH FDD Information		*1..<maxno ofDCHs>*			–	
>Payload CRC Presence Indicator	M		9.2.1.42		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>UL FP Mode	M		9.2.1.67		–	
>ToAWS	M		9.2.1.58		–	
>ToAWE	M		9.2.1.57		–	
>DCH Specific Info		*1..<maxnoofDCHs>*			–	
>>DCH ID	M		9.2.1.16		–	
>>TrCH Source Statistics Descriptor	M		9.2.1.65		–	
>>Transport Format Set	M		9.2.1.64	For the UL.	–	
>>Transport Format Set	M		9.2.1.64	For the DL.	–	
>>BLER	M		9.2.1.4	For the UL.	–	
>>BLER	M		9.2.1.4	For the DL.	–	
>>Allocation/Retention Priority	M		9.2.1.1		–	
>>Frame Handling Priority	M		9.2.1.29		–	
>>QE-Selector	M		9.2.1.46A		–	
>>DRAC control	M		9.2.2.13		–	
>>Guaranteed Rate Information	O		9.2.1.30M		YES	ignore
>>Traffic Class	M		9.2.1.58A		YES	ignore
>>Unidirectional DCH Indicator	O		9.2.1.68B		YES	reject
>TNL QoS	O		9.2.1.56A		YES	ignore

Range bound	Explanation
maxnoofDCHs	Maximum number of DCHs for one UE.

9.2.2.4B   E-DCH FDD Information

The E-DCH *FDD Information* IE provides information for an E-DCH to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-DCH MAC-d Flows Information	M		9.2.2.4MC		–	
HARQ Process Allocation For 2ms Scheduled Transmission Grant	O		HARQ Process Allocation for 2ms TTI	If this IE is not included, scheduled transmission in all HARQ	–	

			9.2.2.4O	processes is allowed.		
E-DCH Maximum Bitrate	O		9.2.2.4MG		−	
E-DCH Processing Overload Level	O		9.2.1.95		−	
E-DCH Reference Power Offset	O		9.2.2.4MI		−	
E-DCH Power Offset for Scheduling Info	O		9.2.1.96		YES	ignore
SixteenQAM UL Operation Indicator	O		9.2.2.90		YES	reject
E-AGCH Table Choice	C-SixteenQAM UL Operation		9.2.2.61A	If the SixteenQAM UL operation is not configured for this UE, Table 16B for E-AGCH in [9] shall be used.	YES	ignore

Condition	Explanation
SixteenQAM UL Operation	The IE shall be present if the *SixteenQAM UL Operation Indicator* IE is set to "Activate".

9.2.2.4C E-DCH FDD Information Response

The *E-DCH FDD Information Response* IE provides information for E-DCH MAC-d flows that have been established or modified. It also provides additional E-DCH information determined within the DRNS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-DCH MAC-d Flow Specific Information Response		*1..<maxno ofEDCHM ACdFlows >*			−	
>E-DCH MAC-d Flow ID	M		9.2.1.91	If only *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE and this IE (*E-DCH MAC-d Flow ID*) are present in the *E-DCH FDD Information Response* IE, the content of	−	

IE/Group Name				this IE shall be considered invalid		
>Binding ID	O		9.2.1.3		−	
>Transport Layer Address	O		9.2.1.62		−	
>HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant	O		HARQ Process Allocation for 2ms TTI 9.2.2.4O		−	
>Transport Bearer Not Setup Indicator	O		9.2.2.4T		YES	ignore
HARQ Process Allocation For 2ms Scheduled Transmission Grant	O		HARQ Process Allocation for 2ms TTI 9.2.2.4O		−	

Range bound	Explanation
maxnoofEDCHMACdFlows	Maximum number of E-DCH MAC-d flows.

9.2.2.4D   E-DCH FDD DL Control Channel Information

The *E-DCH FDD DL Control Channel Information* IE provides information for E-DCH specific DL Control Channels to be provided to UE via RRC signalling.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-AGCH and E-RGCH And E-HICH FDD Scrambling Code	O		DL Scrambling Code 9.2.2.11	Scrambling code on which E-AGCH, E-RGCH and E-HICH are transmitted. 0= Primary scrambling code of the cell 1…15 = Secondary scrambling code	−	
E-AGCH Channelisation Code	O		FDD DL Channelisation Code Number 9.2.2.14		−	
Primary E-RNTI	O		E-RNTI 9.2.1.94		−	

Secondary E-RNTI	O		E-RNTI 9.2.1.94		−	
E-RGCH and E-HICH Channelisation Code	M		FDD DL Channelisation Code Number 9.2.2.14		−	
E-RGCH Signature Sequence	O		INTEGER (0..maxnoof SigSeqERG HICH-1)		−	
E-HICH Signature Sequence	O		INTEGER (0..maxnoof SigSeqERG HICH-1)		−	
Serving Grant Value	O		INTEGER (0..37,38)	(0..37) indicates E-DCH serving grant index as defined in [41]; index 38 means zero grant	−	
Primary/Secondary Grant Selector	O		ENUMERATED (Primary, Secondary)	Indicates whether the Serving Grant Value is granted with a primary E-RNTI or a secondary E-RNTI	−	
E-RGCH Release Indicator	O		9.2.2.60		−	
E-RGCH and E-HICH Channelisation Code Validity Indicator	O		9.2.2.68	Indicates whether the value of E-RGCH and E-HICH Channelisation Code is invalid	YES	ignore
Default Serving Grant in DTX Cycle 2	O		INTEGER (0..37,38)	Serving Grant value to be used in DTX-Cycle-2. (0..37) indicates E-DCH serving grant index as defined in [32]; index 38 means zero grant	YES	ignore

Range bound	Explanation
maxnoofSigSeqERGHICH	Maximum number Signature Sequences for E-RGCH / E-HICH

9.2.2.4E   E-DCH RL Indication

Indicates whether a RL is an E-DCH RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH RL Indication			ENUMERATED(E-DCH, non E-DCH)	

9.2.2.4F   E-DCH FDD Information To Modify

The E-DCH *FDD Information* IE provides information for an E-DCH to be modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-DCH MAC-d Flow Specific Information		*1..<maxnoofEDCHMACdFlows>*			−	
>E-DCH MAC-d Flow ID	M		9.2.1.91		−	
>Allocation/Retention Priority	O		9.2.1.1		−	
>Transport Bearer Request Indicator	M		9.2.1.61		−	
>TNL QoS	O		9.2.1.56A		−	
>Maximum Number of Retransmissions for E-DCH	O		9.2.1.100		−	
>Traffic Class	O		9.2.1.58A		−	
>E-DCH HARQ Power Offset FDD	O		9.2.2.4L		−	
>E-DCH MAC-d Flow Multiplexing List	O		9.2.1.89		−	
> CHOICE *E-DCH grant type*	O					
>>*E-DCH Non-Scheduled Transmission Grant*						
>>>Maximum Number of Bits per MAC-e	M		9.2.2.4N	If the *Extended*	−	

PDU for Non-scheduled Transmission				*Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission IE is present, this IE shall be ignored*		
>>>HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant	O		HARQ Process Allocation for 2ms TTI 9.2.2.4O		−	
>>>Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission	O		9.2.2.4R		YES	reject
>>E-DCH Scheduled Transmission Grant			NULL			
>Bundling Mode Indicator	O		9.2.2.Ca		−	
>E-DCH Logical Channel To Add	O		E-DCH Logical Channel Information 9.2.1.92		−	
>E-DCH Logical Channel To Modify			9.2.1.93		−	
>E-DCH Logical Channel To Delete		*0..< maxnooflo gicalchan nels>*			−	
>>Logical Channel ID	M		9.2.1.97		−	
HARQ Process Allocation For 2ms Scheduled Transmission Grant	O		HARQ Process Allocation for 2ms TTI 9.2.2.4O		−	
E-DCH Maximum Bitrate	O		9.2.2.4MG		−	
E-DCH Processing Overload Level	O		9.2.1.95		−	
E-DCH Reference Power Offset	O		9.2.2.4MI		−	
MAC-e Reset Indicator	O		9.2.1.99		−	
E-DCH Power Offset for Scheduling Info	O		9.2.1.96		YES	ignore
SixteenQAM UL Operation	O		9.2.2.90		YES	reject

Indicator						
E-DCH DL Control Channel Grant Information		*0..<maxnoofEDCHRLs>*			GLOBAL	ignore
>E-DCH RL ID	M		RL ID 9.2.1.49		–	
E-AGCH Table Choice	C-SixteenQAM UL Operation		9.2.2.61A	If sixteenQAM UL operation is not used in the new configuration for this UE, Table 16B for E-AGCH in [9] shall be used in the new configuration.	YES	igonre

Condition	Explanation
SixteenQAM UL Operation	The IE shall be present if the *SixteenQAM UL Operation Indicator* IE is set to "Activate".

Range bound	Explanation
maxnoofEDCHMACdFlows	Maximum number of E-DCH MAC-d flows.
maxnooflogicalchannels	Maximum number of Logical Channels
maxnoofEDCHRLs	Maximum number of E-DCH RLs for one UE

9.2.2.4G   E-DCH Transport Format Combination Set Information (E-TFCS Information)

Whereas the related Transport Block sizes are standardised in [41] this IE gives details on the referenced Transport Block Size Table, the E-DCH Minimum Set E-TFCI, the Reference E-TFCIs and configuration parameters used for the calculation of the gain factors β_{ec} and β_{ed} defined in [10].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-TFCI Table Index	M		INTEGER (0..1,..., 2..7)	Indicates which standardised E-TFCS Transport Block Size Table shall be used. The related tables are specified in [41].	–	
E-DCH Minimum Set E-	M		INTEGER	For the concept of "E-	–	

TFCI			(0..127)	DCH Minimum Set of TFCs" see [41] and [16].		
Reference E-TFCI Information		*1..<maxno ofRefETF CIs>*			–	
>Reference E-TFCI	M		INTEGER (0..127)		–	
>Reference E-TFCI Power Offset	M		9.2.2.4P	If the *Extended Reference E-TFCI Power Offset* IE is present, this IE shall be ignored	–	
>Extended Reference E-TFCI Power Offset	O		9.2.2.4Q		YES	reject
E-DCH Minimum Set E-TFCI Validity Indicator	O		9.2.2.69	Indicates whether the value of E-DCH Minimum Set E-TFCI is invalid	YES	reject
E-TFCI Boost Informatiion	O		9.2.2.91		YES	reject
E-DPDCH Power Interpolation	O		BOOLEAN	True means that the E-DPDCH power interpolation formula shall be applied, False means that the E-DPDCH power extrapolation formula shall be applied for the computation of the gain factor β_{ed} according to [10]	YES	reject

Range Bound	Explanation
maxnoofRefETFCIs	Maximum number of signalled reference E-TFCIs

9.2.2.4J   E-TTI

The E-TTI parameter indicates the Transmission Time Interval for E-DPCH operation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-TTI			ENUMERATED (2ms, 10ms)	

9.2.2.4K   E-DPCCH Power Offset

The E-DPCCH Power Offset is used to calculate the E-DPCCH gain factor β_{ec} as defined in [10], whereas β_{ec} is related to the power difference between DPCCH and E-DPCCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DPCCH Power Offset			INTEGER (0..8)	According to mapping in ref. [21] subclause 4.2.1.3

9.2.2.4KA   Void

9.2.2.4L   E-DCH HARQ Power Offset FDD

The E-DCH HARQ Power Offset FDD is used to calculate the unquantised gain factor for an E-TFC ($\beta_{ed,j,uq}$)as defined in [10].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH HARQ Power Offset FDD			INTEGER (0..6)	According to mapping in ref. [21] subclause 4.2.1.3.

9.2.2.4M   Void

9.2.2.4MA   Void

9.2.2.4MB   Void

9.2.2.4MC   E-DCH MAC-d Flows Information

The *E-DCH MAC-d Flows Information* IE is used for the establishment of E-DCH MAC-d flows.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-DCH MAC-d Flow Specific Information		*1..<maxno ofEDCHM*			–	

		ACdFlows >				
>E-DCH MAC-d Flow ID	M		9.2.1.91		−	
>Allocation/Retention Priority	O		9.2.1.1		−	
>TNL QoS	O		9.2.1.56A		−	
>Payload CRC Presence Indicator	M		9.2.1.42		−	
>Maximum Number of Retransmissions for E-DCH	M		9.2.1.100		−	
>Traffic Class	M		9.2.1.58A		−	
>E-DCH HARQ Power Offset FDD	M		9.2.2.4L		−	
>E-DCH MAC-d Flow Multiplexing List	O		9.2.1.89		−	
>CHOICE *E-DCH grant type*	M				−	
>>*E-DCH Non-Scheduled Transmission Grant*						
>>>Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission	M		9.2.2.4N	If the *Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission* IE is present, this IE shall be ignored	−	
>>>HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant	O		HARQ Process Allocation for 2ms TTI 9.2.2.4O	If this IE is not included, transmission in all HARQ processes is allowed.	−	
>>>Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission	O		9.2.2.4R		YES	reject
>>*E-DCH Scheduled Transmission Grant*			NULL			
>Bundling Mode Indicator	O		9.2.2.Ca		−	
>E-DCH Logical Channel Information	M		9.2.1.92		−	

>TrCH Source Statistics Descriptor	O		9.2.1.65		YES	ignore

Range bound	Explanation
maxnoofEDCHMACdFlows	Maximum number of E-DCH MAC-d flows.

9.2.2.4MD   Void

9.2.2.4ME   Void

9.2.2.4MF   Void

9.2.2.4MG   E-DCH Maximum Bitrate

The E-DCH Maximum Bitrate parameter indicates the Maximum Bitrate for an E-DCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH Maximum Bitrate			INTEGER (0..5742,…, 5743..11498)	Bitrate on transport block level. Unit is kbits per second.

9.2.2.4MH   Void

9.2.2.4MI   E-DCH Reference Power Offset

The E-DCH Reference Power Offset is used to estimate the E-DPDCH power from E-TFCI without decoding MAC-e PDUs.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH Reference Power Offset			INTEGER (0..6)	According to mapping in ref. [21] subclause 4.2.1.3.

9.2.2.4MJ   Void

9.2.2.4N   Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission

The Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission indicates the maximum numbers of bits allowed to be included in a MAC-e PDU per E-DCH MAC-d flow configured for non- scheduled transmissions. If the range of the *Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission* IE is insufficient to

represent the value to be sent to the DRNS, the *Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission* IE shall be used to represent the value to be sent to the DRNS, see section 9.2.2.4R.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Number of Bits per MAC-e PDU for Non-Scheduled Transmission			INTEGER (1..19982)	

9.2.2.4O   HARQ Process Allocation For 2ms TTI

The HARQ Process Allocation for 2ms TTI indicates those HARQ processes that are allowed. MAC-d PDU's for a MAC-d flow are only allowed to be transmitted in those processes for which the bit is set to "1".

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HARQ Process Allocation For 2ms TTI			BIT STRING (8)	The first Bit corresponds to HARQ process ID = 0, the second bit corresponds to HARQ process ID = 1, etc. The HARQ process ID for 2ms TTI is defined in [41], chapter 11.8.1.3.

9.2.2.4P   Reference E-TFCI Power Offset

The Reference E-TFCI Power Offset is used to calculate the reference E-TFC gain factor $\beta_{ed,ref}$ as defined in [10]. If the range of the *Reference E-TFCI Power Offset* IE is insufficient to represent the value to be sent to the DRNS, the *Extended Reference E-TFCI Power Offset* IE shall be used to represent the value to be sent to the DRNS, see section 9.2.2.4Q.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Reference E-TFCI Power Offset			INTEGER (0..29)	According to mapping in ref. [21] subclause 4.2.1.3

9.2.2.4Q   Extended Reference E-TFCI Power Offset

The *Extended Reference E-TFCI Power Offset* IE shall be used if the range of the *Reference E-TFCI Power Offset* IE (see section 9.2.2.4P) is insufficient to represent the value of the Reference E-TFCI Power Offset to be sent to the DRNS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Extended Reference E-TFCI Power Offset			INTEGER (30..31,…)	According to mapping in ref. [21] subclause 4.2.1.3

9.2.2.4R Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission

The *Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission* IE shall be used if the range of the *Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission* IE (see section 9.2.2.4N) is insufficient to represent the value of the Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission to be sent to the DRNS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission			INTEGER (19983..22978,…)	

9.2.2.4S Transport Bearer Not Requested Indicator

The Transport Bearer Not Requested Indicator parameter indicates that a transport bearer shall not be established or may not to be established for DCH or an E-DCH MAC-d flow.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transport Bearer Not Requested Indicator			ENUMERATED (Transport Bearer shall not be Established, Transport Bearer may not be Established)	

9.2.2.4T Transport Bearer Not Setup Indicator

The Transport Bearer Not Setup Indicator parameter indicates that a transport bearer will not be established for a DCH or an E-DCH MAC-d flow.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transport Bearer Not Setup Indicator			ENUMERATED (Transport Bearer Not Setup)	

9.2.2.5 D-Field Length

Void

9.2.2.6 Diversity Control Field

Void.

9.2.2.7 Diversity Indication

Void.

9.2.2.8 Diversity Mode

Define the diversity mode to be applied.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Diversity Mode			ENUMERATED(None, STTD, Closed loop mode 1, Not Used,…)	The *Diversity Mode* IE shall never be set to "Not Used". If received it shall be rejected.

9.2.2.9 DL DPCH Slot Format

Indicates the slot format used in DPCH in DL, according to ref. [8].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL DPCH Slot Format			INTEGER (0..16,…)	

9.2.2.9A DL DPCH Timing Adjustment

The DL DPCH Timing Adjustment indicates that a timing adjustment of the related radio link is required or that an Initial DL DPCH Timing Adjustment has been performed by the DRNS. It also indicates whether the timing adjustment consists of a timing advance or a timing delay with respect to the SFN timing. The adjustment always consists of 256 chips.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL DPCH Timing Adjustment			ENUMERATED(timing advance, timing delay)	The size of the timing adjustment is 256 chips.

9.2.2.10 DL Power

Void

9.2.2.10A DL Power Balancing Information

The *DL Power Balancing Information* IE provides information for power balancing to be activated in the relevant RL(s).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Power Adjustment Type	M		9.2.2.28		–	
DL Reference Power	C-Common		DL power 9.2.1.21A	Power on DPCH or on F-DPCH	–	
DL Reference Power Information	C-Individual	*1..<maxnoofRLs>*			–	
>RL ID	M		9.2.1.49		–	

>DL Reference Power	M		DL power 9.2.1.21A	Power on DPCH or on F-DPCH	–	
Max Adjustment Step	C-CommonOrIndividual		9.2.2.23		–	
Adjustment Period	C-CommonOrIndividual		9.2.2.B		–	
Adjustment Ratio	C-CommonOrIndividual		9.2.2.C		–	

Condition	Explanation
Common	The IE shall be present if the *Power Adjustment Type* IE is set to "Common".
Individual	The IE shall be present if the *Power Adjustment Type* IE is set to "Individual".
CommonOrIndividual	The IE shall be present if the *Power Adjustment Type* IE is set to "Common" or "Individual".

Range Bound	Explanation
maxnoofRLs	Maximum number of Radio Links for a UE.

9.2.2.10B   DL Power Balancing Activation Indicator

The *DL Power Balancing Activation Indicator* IE indicates that the power balancing is activated in the RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Power Balancing Activation Indicator			ENUMERATED(DL Power Balancing Activated).	

9.2.2.10C   DL Reference Power Information

The *DL Reference Power Information* IE provides reference power of the power balancing to be used in the relevant RL(s).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Common DL Reference Power	O		DL power 9.2.1.21A	Power on DPCH or on F-DPCH	–	
Individual DL Reference Power Information		*0..<maxnoofRLs>*			–	

>RL ID	M		9.2.1.49		–	
>DL Reference Power	M		DL power 9.2.1.21A	Power on DPCH or on F-DPCH	–	

Range bound	Explanation
maxnoofRLs	Maximum number of RLs for a UE.

9.2.2.10D   DL Power Balancing Updated Indicator

The *DL Power Balancing Updated Indicator* IE indicates that the power balancing related parameters is updated in the RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Power Balancing Updated Indicator			ENUMERATED(DL Power Balancing Updated).	

9.2.2.11   DL Scrambling Code

DL Scrambling code to be used by the RL. One cell may have multiple DL Scrambling codes available.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Scrambling Code			INTEGER (0..15)	0= Primary scrambling code of the cell 1…15= Secondary scrambling code

9.2.2.12   Downlink Frame Type

Void

9.2.2.12A   DPC Mode

The *DPC Mode* IE indicates the DPC mode to be applied [10].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DPC Mode			ENUMERATTED (Mode0, Mode1, …)	Mode0: The DRNS shall estimate the UE transmitted TPC command and update the DL power in every slot Mode1: The DRNS shall estimate the UE transmitted TPC command over three slots and shall update the DL power in every three slots

9.2.2.13 DRAC Control

The possibility to use DRAC control has been removed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DRAC Control			ENUMERATED (Not Used, Not-Requested)	The *DRAC Control* IE shall never be set to "Not Used".

9.2.2.13A DSCH FDD Information

Void.

9.2.2.13B DSCH FDD Information Response

Void.

9.2.2.13Bb DSCH-RNTI

Void.

9.2.2.13C FDD DCHs To Modify

The *FDD DCHs To Modify* IE provides information for DCHs to be modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
FDD DCHs To Modify		*1..<maxno ofDCHs>*			–	
>UL FP Mode	O		9.2.1.67		–	
>ToAWS	O		9.2.1.58		–	
>ToAWE	O		9.2.1.57		–	
>Transport Bearer Request Indicator	M		9.2.1.61		–	
>DCH Specific Info		*1..<maxno ofDCHs>*			–	
>>DCH ID	M		9.2.1.16		–	
>>Transport Format Set	O		9.2.1.64	For the UL.	–	
>>Transport Format Set	O		9.2.1.64	For the DL.	–	
>>Allocation/Retention Priority	O		9.2.1.1		–	
>>Frame Handling Priority	O		9.2.1.29		–	
>>Not Used	O		NULL		–	
>>Guaranteed Rate Information	O		9.2.1.30M		YES	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>Traffic Class	O		9.2.1.58A		YES	ignore
>>Unidirectional DCH Indicator	O		9.2.1.68B		YES	reject
>TNL QoS	O		9.2.1.56A		YES	ignore

Range bound	Explanation
maxnoofDCHs	Maximum number of DCHs for one UE.

9.2.2.13D   Enhanced DSCH PC

Void.

9.2.2.13E   Enhanced DSCH PC Counter

Void.

9.2.2.13F   Enhanced DSCH PC Indicator

Void.

9.2.2.13G   Enhanced DSCH PC Wnd

Void.

9.2.2.13H   Enhanced DSCH Power Offset

Void.

9.2.2.13I   Enhanced Primary CPICH Ec/No

Energy per PN chip divided by the total received power spectral density measured on the Primary CPICH by the UE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Enhanced Primary CPICH Ec/No			INTEGER(0 ..49)	According to the mapping of the Primary CPICH Ec/Io UE measurement defined in ref. [23] and [24]

9.2.2.14   FDD DL Channelisation Code Number

The DL Channelisation Code Number indicates the DL Channelisation Code number for a specific DL physical channel.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FDD DL Channelisation Code Number			INTEGER(0 .. 511)	According to the mapping in [27]. The maximum value is equal

				to the DL spreading factor –1

9.2.2.14A   FDD DL Code Information

The *FDD DL Code Information* IE provides FDD DL Code information for all DPCHs or for the F-DPCH of one Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
FDD DL Code Information		*1.. <maxnoof DLCodes*			–	
>DL Scrambling Code	M		9.2.2.11		–	
>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>Transmission Gap Pattern Sequence Scrambling Code Information	O		9.2.2.47B		–	

Range bound	Explanation
maxnoofDLCodes	Maximum number of DL Channelisation Codes for one UE.

9.2.2.15   FDD S-CCPCH Offset

Void.

9.2.2.16   FDD TPC Downlink Step Size

This parameter indicates step size for the DL power adjustment.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FDD TPC Downlink Step Size			ENUMERA TED(0.5, 1, 1.5, 2,…)	

9.2.2.16A   First RLS Indicator

The First *RLS Indicator* IE indicates if a specific Radio Link and all Radio Links which are part of the same Radio Link Set, shall be considered as the first radio links established towards the UE or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
First RLS Indicator			ENUMERA TED(first RLS, not first RLS)	

9.2.2.17   Gap Position Mode

Void.

9.2.2.18   Gap Period (TGP)

Void.

9.2.2.19   Gap Starting Slot Number (SN)

Void

9.2.2.19a   HS-DSCH FDD Information

The *HS-DSCH FDD Information* IE is used for initial addition of HS-DSCH information to UE Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-DSCH MAC-d Flows Information	M		9.2.1.30OA		–	
UE Capabilities Information		1			–	
>HS-DSCH Physical Layer Category	M		9.2.1.30Oa		–	
>1.28 Mcps TDD uplink physical channel capability	O		9.2.3.10D	Not to be used.	YES	ignore
>Number of Supported Carriers	O		ENUMERAT ED (One-one carrier, One-three carrier, Three-three carrier, One-six carrier, Tree-six carrier, Six-six carrier, ...)	Not to be used.	YES	reject
>Multi-carrier HS-DSCH Physical Layer Category	O		9.2.1.30Oa	Not to be used.	YES	ignore
MAC-hs Reordering Buffer Size for RLC-UM	M		9.2.1.34Ab		–	
CQI Feedback Cycle k	M		9.2.2.24a		–	
CQI Repetition Factor	C-CQICyclek		9.2.2.24c		–	
ACK-NACK Repetition Factor	M		9.2.2.a		–	
CQI Power Offset	M		9.2.2.24b		–	

ACK Power Offset	M		9.2.2.b		–	
NACK Power Offset	M		9.2.2.26a		–	
HS-SCCH Power Offset	O		9.2.2.19d		–	
HARQ Preamble Mode	O		9.2.2.57		YES	ignore
MIMO Activation Indicator	O		9.2.2.76		YES	reject
HS-DSCH MAC-d PDU Size Format	O		9.2.1.30OC	If not present, "Indexed MAC-d PDU Size" shall be used.	YES	reject
Sixtyfour QAM Usage Allowed Indicator	O		9.2.2.79A		YES	ignore

Condition	Explanation
CQICyclek	The IE shall be present if the *CQI Feedback Cycle k* IE is set to a value greater than 0.

9.2.2.19b HS-DSCH FDD Information Response

The *HS-DSCH FDD Information Response* IE provides information for HS-DSCH MAC-d flows that have been established or modified. It also provides additional HS-DSCH information determined within the DRNS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-DSCH MAC-d Flow Specific Information Response		*0..<max noofMACdFlows>*			–	
>HS-DSCH MAC-d Flow ID	M		9.2.1.30O		–	
>Binding ID	O		9.2.1.3		–	
>Transport Layer Address	O		9.2.1.62		–	
>HS-DSCH Initial Capacity Allocation	O		9.2.1.30Na		–	
HS-SCCH Specific Information Response		*0..<max noofHSSCCHcodes>*			–	
>Code Number	M		INTEGER (0..127)		–	
HS-PDSCH And HS-SCCH Scrambling Code	O		DL Scrambling Code 9.2.2.11		–	
Measurement Power Offset	O		9.2.2.24d		–	
HARQ Memory Partitioning	O		9.2.1.116		–	
User Plane Congestion Fields Inclusion	O		9.2.1.70C		YES	ignore
HARQ Preamble Mode Activation Indicator	O		9.2.2.58		YES	ignore
MIMO Information Response	O		9.2.2.78		YES	Ignore
SixtyfourQAM DL Usage Indicator	O		9.2.2.79B		YES	Ignore
HS-DSCH TB Size Table Indicator	O		9.2.2.19G		YES	ignore

Range bound	Explanation
maxnoofMACdFlows	Maximum number of MAC-d flows.
maxnoofHSSCCHcodes	Maximum number of HS-SCCH codes.

9.2.2.19c　　HS-DSCH FDD Update Information

The *HS-DSCH FDD Update Information* IE provides information for HS-DSCH to be updated. At least one IE shall be presented.

IE/Group name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
HS-SCCH Code Change Indicator	O		9.2.1.30R		–	
CQI Feedback Cycle k	O		9.2.2.24a		–	
CQI Repetition Factor	O		9.2.2.24c		–	
ACK-NACK Repetition Factor	O		9.2.2.a		–	
CQI Power Offset	O		9.2.2.24b		–	
ACK Power Offset	O		9.2.2.b		–	
NACK Power Offset	O		9.2.2.26a		–	
HS-PDSCH Code Change Indicator	O		9.2.1.30V		YES	ignore

9.2.2.19C　　HS-DSCH configured indicator

The *HS-DSCH Configured Indicator* IE indicates the configuration of HS-DSCH for the UE. The *HS-DSCH Configured Indicator* IE shall be used for the configuration of the E-DPDCH IQ branch mapping [21].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
HS-DSCH Configured Indicator			ENUMERATED (HS-DSCH configured, HS-DSCH not configured)	Indicator of the HS-DSCH configuration for configuration of the E-DPDCHs IQ branch mapping [21].

9.2.2.19d　　HS-SCCH Power Offset

The *HS-SCCH Power Offset* IE indicates the Power offset relative to the pilot bits on the DL DPCCH except when FDPCH is configured. When F-DPCH is configured, the *HS-SCCH Power Offset* IE indicates the Power offset relative to the power of transmitted TPC bits on the F-DPCH.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
HS-SCCH Power Offset			INTEGER (0..255)	Step 0.25 dB, range -32- +31.75 dB

9.2.2.19e   E-DCH FDD Update Information

The *E-DCH FDD Update Information* IE provides information for E-DCH to be updated. At least one IE shall be present.

IE/Group Name	Pres ence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-DCH MAC-d Flow Specific Update Information		*0..<maxnoofEDCHMACdFlows>*			−	
>E-DCH MAC-d Flow ID	M		9.2.1.91		−	
>HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant	O		HARQ Process Allocation for 2ms TTI 9.2.2.4O		−	
HARQ Process Allocation For 2ms Scheduled Transmission Grant	O		HARQ Process Allocation for 2ms TTI 9.2.2.4O		−	
E-DCH DL Control Channel Change Information		*0..<maxnoofEDCHRLs>*			GLOBAL	ignore
>E-DCH RL ID	M		RL ID 9.2.1.49		−	

Range bound	Explanation
maxnoofEDCHMACdFlows	Maximum number of E-DCH MAC-d flows.
maxnoofEDCHRLs	Maximum number of E-DCH RLs for one UE

9.2.2.19f   HS-DSCH Serving Cell Change Information

The *HS-DSCH Serving Cell Change Information* IE contains information which is used in HS-DSCH Serving Cell change.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-PDSCH RL ID	M		RL ID 9.2.1.49		−	
HS-DSCH Information	O		HS-DSCH FDD Information 9.2.2.19a		−	
Continuous Packet Connectivity HS-SCCH less Information	O		9.2.2.74		YES	reject

9.2.2.19g   HS-DSCH Serving Cell Change Information Response

The *HS-DSCH Serving Cell Change Information Response* IE contains information which is used in HS-DSCH Serving Cell change.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE *Serving Cell Change*					–	
>*Successful*					–	
>>HS-DSCH FDD Information Response	M		9.2.2.19b		–	
>>HS-DSCH-RNTI	M		9.2.1.30P		–	
>>Continuous Packet Connectivity HS-SCCH less Information Response	O		9.2.2.75		YES	Ignore
>*Unsuccessful*					–	
>>Cause	M		9.2.1.5		–	

9.2.2.19G   HS-DSCH TB Size Table Indicator

The *HS-DSCH TB Size Table Indicator* IE is used to indicate that octet aligned table [41] shall be used.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH TB Size Table Indicator			ENUMERATED (octet aligned)	

9.2.2.19h   E-DCH Serving Cell Change Information Response

The *E-DCH Serving Cell Change Information Response* IE contains information which is used in E-DCH Serving Cell change.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Serving Cell Change*				
>*Successful*				
>>RL Information Response		*0..<maxnoofRLs>*		
>>>RL ID	M		9.2.1.49	
>>>E-DCH FDD DL Control Channel Information	M		9.2.2.4D	
>*Unsuccessful*				
>>Cause	M		9.2.1.5	

Range bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE

9.2.2.20   IB_SG_POS

Void.

9.2.2.21   IB_SG_REP

Void.

9.2.2.21a   Inner Loop DL PC Status

The *Inner Loop DL PC Status* IE indicates whether inner loop DL control shall be active or inactive for all radio links for the UE Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Inner Loop DL PC Status			ENUMERATED(Active, Inactive)	

9.2.2.21b   Initial DL DPCH Timing Adjustment Allowed

The *Initial DL DPCH Timing Adjustment Allowed* IE indicates that the DRNS is allowed to perform a timing adjustment (either a timing advance or a timing delay with respect to the SFN timing) when establishing a radio link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Initial DL DPCH Timing Adjustment Allowed			ENUMERATED (initial DL DPCH Timing Adjustment Allowed)	

9.2.2.21A   Limited Power Increase

The parameter is used for a more efficient use of the inner loop DL power control for non real time data.

If the limited power increase is used, DRNS shall use the limited power increase algorithm as specified in [10], subclause 5.2.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Limited Power Increase			ENUMERATED(Used, Not used ,)	

9.2.2.21B   IPDL FDD Parameters

The *IPDL FDD Parameters* IE provides the information for the IPDL Configuration applied in FDD mode.

IE/Group name	Presence	Range	IE Type and Reference	Semantics Description
IP spacing FDD	M		ENUMERATED(5,7,10, 15,20,30,40,	See [10]

			50,…)	
IP length	M		ENUMERA TED(5,10,…)	See [10]
IP offset	M		INTEGER(0 ..9)	See [10]
Seed	M		INTEGER(0 ..63)	See [10]
Burst mode parameters	O		9.2.1.4B	

9.2.2.21C Length of TFCI2

Void.

9.2.2.21D Void

9.2.2.21E Void

9.2.2.21F Void

9.2.2.22 Max Adjustment Period

Void.

9.2.2.23 Max Adjustment Step

Defines the maximum allowed value for the change of DL power level during a certain number of slots that can be utilised by the downlink power balancing algorithm. *Max Adjustment Step* IE defines a time period, in terms of number of slots, in which the accumulated power adjustments shall be maximum 1 dB. This value does not include the DL inner loop PC adjustment.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Max Adjustment Step			INTEGER(1 ..10)	Slots

9.2.2.24 Max Number of UL DPDCHs

Maximum number of uplink DPDCHs during the connection. Needed by the rate matching algorithm.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Max Number of UL DPDCHs			INTEGER (1..6)	

9.2.2.24a CQI Feedback Cycle k

The *CQI Feedback Cycle k* IE provides the duration of the CQI feedback cycle.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CQI Feedback Cycle k			ENUMERATED (0, 2, 4, 8, 10, 20, 40, 80, 160,…, 16, 32, 64)	Unit ms

9.2.2.24b CQI Power Offset

The *CQI Power Offset* IE indicates Power offset used in the UL between the HS-DPCCH slots carrying CQI information and the associated DPCCH.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CQI Power Offset			INTEGER (0..8,…)	According to mapping in ref. [21] subclause 4.2.1.

9.2.2.24c CQI Repetition Factor

The *CQI Repetition Factor* IE indicates the consecutive repetition of the CQI.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CQI Repetition Factor			INTEGER (1..4,...)	Step: 1

9.2.2.24d Measurement Power Offset

The *Measurement Power Offset* IE is used as defined in [10] subclause 6A.2.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Measurement Power Offset			INTEGER (-12..26)	Unit: dB Range: -6..13dB Step: 0.5dB

9.2.2.24e Maximum Set of E-DPDCHs

The Maximum Set of E-DPDCHs as defined in [9]. Needed by rate matching algorithm.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Set of E-DPDCHs			ENUMERATED (vN256, vN128, vN64, vN32, vN16, vN8, vN4, v2xN4, v2xN2, v2xN2plus2xN4,…, v2xM2plus2xM4)	

9.2.2.24f Void

9.2.2.24A Min DL Channelisation Code Length

Void

9.2.2.25 Min UL Channelisation Code Length

Minimum UL channelisation code length (spreading factor) of a DPDCH during the connection. Needed by rate matching algorithm.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Min UL Channelisation Code Length			ENUMERATED(4,8,16, 32,64,128, 256)	

9.2.2.26 Multiplexing Position

Multiplexing Position specifies whether fixed or flexible positions of transport channels shall be used in the physical channel.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Multiplexing Position			ENUMERATED(Fixed, Flexible)	

9.2.2.26a NACK Power Offset

The *NACK Power Offset* IE indicates Power offset used in the UL between the HS-DPCCH slot carrying HARQ NACK information and the associated DPCCH.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
NACK Power Offset			INTEGER (0..8,…)	According to mapping in ref. [21] subclause 4.2.1.

9.2.2.26A Number of DL Channelisation Codes

This parameter notifies DRNS of the number of DL channelisation codes required for the Radio Link(s).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Number of DL Channelisation Codes			INTEGER(1..8)	

9.2.2.27 Pattern Duration (PD)

Void

9.2.2.27a PC Preamble

Indicates DPDCH power control preamble length see ref. [7].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PCP Preamble			INTEGER(0 ..7,…)	In number of frames.

9.2.2.27A PDSCH Code Mapping

Void.

9.2.2.27B Phase Reference Update Indicator

The *Phase Reference Update Indicator* IE indicates that the phase reference for the radio link needs to be changed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Phase Reference Update indicator			ENUMERATED (Phase Reference needs to be changed)	

9.2.2.28 Power Adjustment Type

Defines the characteristic of the power adjustment.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Power Adjustment Type			ENUMERATED(None, Common, Individual)	

9.2.2.29 Power Control Mode (PCM)

Void.

9.2.2.30 Power Offset

This IE defines a power offset relative to the Downlink transmission power of a DPCH in case the UE Context is configured to use DPCH in the downlink.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Power Offset			INTEGER(0 ..24)	Unit dB, Step 0.25 dB,

				Range 0..6 dB

9.2.2.31 Power Resume Mode (PRM)

Void.

9.2.2.31A Preamble Signatures

Void.

9.2.2.32 Primary CPICH Ec/No

Energy per chip divided by the power density per band measured on the Primary CPICH by the terminal.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Primary CPICH Ec/No			INTEGER(-30..+30)	Unit dB, step 1 dB The value range is typically within the range of -24 dB to 0 dB according to the CPICH Ec/Io UE measurement defined in ref. [23].

9.2.2.32A Primary CPICH Usage For Channel Estimation

The *Primary CPICH Usage For Channel Estimation* IE indicates whether the Primary CPICH may be used for channel estimation or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Primary CPICH Usage For Channel Estimation			ENUMERATED (Primary CPICH may be used, Primary CPICH shall not be used)	

9.2.2.33 Propagation Delay (PD)

Propagation delay is the one-way propagation delay of the radio signal from the UE to the Node B. If the range of the *Propagation Delay* IE is insufficient to represent the measured value, it shall be set to its maximum value, and the *Extended Propagation Delay* IE (see 9.2.2.33a) shall be used to represent the propagation delay value.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Propagation Delay			INTEGER(0..255)	Unit: Chips. Step: 3 chips. 0=0 chips, 1=3 chips, …

9.2.2.33a   Extended Propagation Delay

The Extended Propagation delay is the one-way propagation delay of the radio signal from the MS to the Node B. It shall be used if the *Propagation Delay* IE (see 9.2.2.33) cannot represent the measured value, due to range limitation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Extended Propagation Delay			INTEGER (255..1023)	Continuation of intervals as defined in [23]. Unit: chip Range: 765..3069 chips Step: 3 chips

9.2.2.33A   PRACH Minimum Spreading Factor

Void.

9.2.2.34   QE-Selector

Void.

9.2.2.34a   Qth Parameter

Void.

9.2.2.34A   RACH Sub Channel Numbers

Void.

9.2.2.35   RL Set ID

The RL Set ID uniquely identifies one RL Set within a UE Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RL Set ID			INTEGER (0..31)	

9.2.2.35a   RL Specific E-DCH Information

The *RL Specific E-DCH Information* IE provides RL specific E-DCH Information.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
RL Specific E-DCH Information		1..<maxnoof EDCHMACd Flows>			–	
>E-DCH MAC-d Flow ID	M		9.2.1.91		–	
>Binding ID	O		9.2.1.3	Shall be ignored if bearer establishment	–	

				with ALCAP.		
>Transport Layer Address	O		9.2.1.62	Shall be ignored if bearer establishment with ALCAP.	−	
>Transport Bearer Not Requested Indicator	O		9.2.2.4S		YES	ignore
E-AGCH Power Offset	O		9.2.2.61		−	
E-RGCH Power Offset	O		9.2.2.62		−	
E-HICH Power Offset	O		9.2.2.63		−	

Range Bound	Explanation
maxnoofEDCHMACdFlows	Maximum number of E-DCH MAC-d flows

9.2.2.35A   Received Total Wide Band Power

The parameter indicates the Received total wide band power in a cell, see ref. [11].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Received Total Wide Band Power			INTEGER(0 ..621)	According to mapping in [23].

9.2.2.36   S-Field Length

Void.

9.2.2.36A   Void

9.2.2.37   Scrambling Code Change

Void.

9.2.2.37A   Scrambling Code Number

Void.

9.2.2.37B   Secondary CCPCH Info

Void.

9.2.2.38   Secondary CCPCH Slot Format

Void.

9.2.2.38A   Secondary CPICH Information

The *Secondary CPICH Information* IE provides the information on the Secondary CPICH when it can be used for channel estimation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Scrambling Code	M		9.2.2.11	
FDD DL Channelisation Code Number	M		9.2.2.14	

9.2.2.38B   Secondary CPICH Information Change

The *Secondary CPICH Information Change* IE indicates modification of information of the Secondary CPICH for channel estimation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Secondary CPICH Information Change*	M			
>*New Secondary CPICH*				
>>Secondary CPICH Information	M		9.2.2.38A	
>*Secondary CPICH Shall Not Be Used*			NULL	

9.2.2.38C   Serving E-DCH RL

The *Serving E-DCH RL* IE indicates whether the Serving E-DCH RL is in the DRNS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Serving E-DCH RL*	M			
>*Serving E-DCH RL in this DRNS*				
>>Serving E-DCH RL ID	M		RL ID 9.2.1.49	
>*Serving E-DCH RL not in this DRNS*			NULL	

9.2.2.39   Slot Number (SN)

Void

9.2.2.39a   Split Type

Void.

9.2.2.39A SRB Delay

Indicates the number of frames after the PC Preamble period during which transmission of data on some RRC Signalling Bearers shall be prohibited by UE in accordance with ref. [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SRB Delay			INTEGER(0 ..7,…)	In number of frames.

9.2.2.40 SSDT Cell Identity

Void.

9.2.2.40A SSDT Cell Identity for EDSCHPC

Void.

9.2.2.41 SSDT Cell Identity Length

Void.

9.2.2.42 SSDT Indication

Void.

9.2.2.43 SSDT Support Indicator

The possibility to use SSDT Support Indicator has been removed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SSDT Support Indicator			ENUMERATED(Not Used, SSDT not supported).	The *SSDT Support Indicator* IE shall never be set to "Not Used".

9.2.2.44 STTD Indicator

Void.

9.2.2.45 STTD Support Indicator

The STTD Support Indicator indicates whether the STTD can be applied to DL DPCH and F-DPCH in the cell or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
STTD Support Indicator			ENUMERATED(STTD Supported, STTD not Supported).	

9.2.2.45A   Synchronisation Indicator

The *Synchronisation Indicator* IE indicates that Timing Maintained Synchronisation shall be used at start of Radio Link, see also [10].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Synchronisation Indicator			ENUMERATED (Timing Maintained Synchronisation,…)	

9.2.2.46   TFCI Signalling Mode

This parameter indicates has only one value with any meaning.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TFCI Signalling Mode			ENUMERATED(Normal, Not Used)	The value "Not Used" shall not be used by the SRNC. The procedure shall be rejected by the DRNC if the value "Not Used" is received.

9.2.2.46A   TFCI PC Support Indicator

Void.

9.2.2.47   Transmission Gap Distance (TGD)

Void.

9.2.2.47A   Transmission Gap Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence. For details see [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmission Gap Pattern Sequence Information		*1..<maxTGPS>*		
>TGPSI Identifier	M		INTEGER(1..<MaxTGPS>)	Transmission Gap Pattern Sequence Identifier Establish a reference to the compressed mode pattern sequence. Up to <MaxTGPS> simultaneous compressed mode pattern sequences can be used.
>TGSN	M		INTEGER(0..14)	Transmission Gap Starting Slot Number The slot number of the first transmission gap slot within the TGCFN.
>TGL1	M		INTEGER(1..14)	The length of the first Transmission Gap within the transmission gap pattern

				expressed in number of slots.
>TGL2	O		INTEGER(1 ..14)	The length of the second Transmission Gap within the transmission gap pattern. If omitted, then TGL2=TGL1.
>TGD	M		INTEGER (0, 15.. 269)	Transmission gap distance indicates the number of slots between the starting slots of two consecutive transmission gaps within a transmission gap pattern. If there is only one transmission gap in the transmission gap pattern, this parameter shall be set to 0 (0 =undefined).
>TGPL1	M		INTEGER(1..144,…)	The duration of transmission gap pattern 1 in frames.
>Not-to-be-used-1	O		INTEGER(1..144,…)	This IE shall never be included in the IE group. If received it shall be ignored.
>UL/DL mode	M		ENUMERA TED(UL only, DL only, UL/DL)	Defines whether only DL, only UL, or combined UL/DL compressed mode is used.
>Downlink Compressed Mode Method	C-DL		ENUMERA TED(not Used, SF/2, higher layer scheduling, …)	Method for generating downlink compressed mode gap The *Downlink Compressed Mode Method* IE shall never be set to "not Used".
>Uplink Compressed Mode Method	C-UL		ENUMERA TED(SF/2, higher layer scheduling, …)	Method for generating uplink compressed mode gap.
>Downlink Frame Type	M		ENUMERA TED(A, B,...)	Defines if frame type "A" or "B" shall be used in downlink compressed mode.
>DeltaSIR1	M		INTEGER(0 ..30)	Delta in SIR target value to be set in the DRNS during the frame containing the start of the first transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase) Step 0.1 dB, Range 0-3dB
>DeltaSIRafter1	M		INTEGER	Delta in SIR target value to be set in the DRNS one frame after the frame containing the start of

ETSI

			(0..30)	the first transmission gap in the transmission gap pattern,. Step 0.1 dB, Range 0-3dB
>DeltaSIR2	O		INTEGER (0..30)	Delta in SIR target value to be set in the DRNS during the frame containing the start of the second transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase) When omitted, DeltaSIR2 = DeltaSIR1. Step 0.1 dB, Range 0-3dB
>DeltaSIRafter2	O		INTEGER (0..30)	Delta in SIR target value to be set in the DRNS one frame after the frame containing the start of the second transmission gap in the transmission gap pattern. When omitted, DeltaSIRafter2 = DeltaSIRafter1. Step 0.1 dB, Range 0-3dB

Condition	Explanation
UL	The IE shall be present if the *UL/DL mode* IE is set to "UL only" or "UL/DL".
DL	The IE shall be present if the *UL/DL mode* IE is set to "DL only" or "UL/DL".

Range bound	Explanation
maxTGPS	Maximum number of transmission gap pattern sequences.

9.2.2.47B Transmission Gap Pattern Sequence Scrambling Code Information

This IE indicates whether or not the alternative scrambling code will be used in the DRNS for the Downlink compressed mode method "SF/2" in the Transmission Gap Pattern Sequence. For details see ref. [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmission Gap Pattern Sequence Scrambling Code Information			ENUMERATED(code change, no code change)	Code change = alternative scrambling code will be used.

9.2.2.48 Transmit Diversity Indicator

The Transmit Diversity Indicator indicates whether Transmit Diversity shall be active or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmit Diversity Indicator			ENUMERATED(active, inactive)	

9.2.2.49 Transmit Gap Length (TGL)

Void

9.2.2.50 Tx Diversity Indicator

The Tx Diversity Indicator indicates if the following conditions are satisfied:

- Primary CPICH is broadcast from two antennas

- STTD is applied to Primary CCPCH

- TSTD is applied to Primary SCH and Secondary SCH

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Tx Diversity Indicator			ENUMERATED(true, false).	

9.2.2.50A UE Support Of Dedicated Pilots For Channel Estimation

Void.

9.2.2.50B UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH

Void.

9.2.2.51 UL/DL Compressed Mode Selection

Void

9.2.2.52 UL DPCCH Slot Format

Indicates the slot format used in DPCCH in UL, according to ref. [8].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL DPCCH Slot Format			INTEGER (0..5,…)	Value 5 shall not be used. If value 5 is received, the procedure shall be rejected.

9.2.2.52A UL DPDCH Indicator for E-DCH operation

This IE indicated whether the requested configuration actually contain an UL DPDCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL DPDCH Indicator for E-DCH operation			ENUMERATED (UL-DPDCH present, UL-DPDCH not present)	

9.2.2.53 UL Scrambling Code

The UL Scrambling Code is the scrambling code used by UE. Every UE has its specific UL Scrambling Code.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL Scrambling Code Number	M		INTEGER $(0.. \ 2^{24}-1)$	
UL Scrambling Code Length	M		ENUMERATED(Short, Long)	

9.2.2.54 Uplink Delta SIR

Void

9.2.2.55 Uplink Delta SIR After

Void

9.2.2.56 DPC Mode Change Support Indicator

The *DPC Mode Change Support Indicator* IE indicates that the particular cell is capable to support DPC mode change.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DPC Mode Change Support Indicator			ENUMERATTED (DPC Mode Change Supported)	

9.2.2.57 HARQ Preamble Mode

The *HARQ Preamble Mode* IE is used as described as described in ref [10].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HARQ Preamble Mode			ENUMERATED(mode0, mode1)	"mode0" means HARQ Preamble Mode =0 "mode1" means HARQ Preamble Mode =1

9.2.2.58 HARQ Preamble Mode Activation Indicator

The HARQ Preamble Activation Indicator indicates if the configured HARQ Preamble Mode has been activated in the DRNS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HARQ Preamble Mode Activation Indicator			ENUMERATED(HARQ Preamble Mode Activated).	

9.2.2.59 Frequency Band Indicator

The *Frequency Band Indicator* IE indicates frequency band as defined in [6].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Frequency Band Indicator			ENUMERATED (Band I, Band II, Band III, Band IV, Band V, Band VI, Band VII, Band VIII, Band IX, Band X, Band XI, Band XII, Band XIII, Band XIV, Band XV, Band XVI, Band XVII, Band XVIII, Band XIX, Band XX, Band XXI, Band XXII,…)	

9.2.2.60 E-RGCH Release Indicator

Indicates that the E-RGCH is released..

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-RGCH Release Indicator			ENUMERATED (E-RGCH released)	

9.2.2.61 E-AGCH Power Offset

The *E-AGCH Power Offset* IE indicates the Power offset relative to the pilot bits on the DL DPCCH except when F-DPCH is configured. When F-DPCH is configured, the *E-AGCH Power Offset* IE indicates the Power offset relative to the power of transmitted TPC bits on the F-DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-AGCH Power Offset			INTEGER (0..255,…)	Unit: dB Range: -32 .. +31.75 dB Step: 0.25 dB

9.2.2.61A E-AGCH Table Choice

The E-AGCH Table Choice IE indicates the choice of the E-AGCH table in[9].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-AGCH Table Choice	M		ENUMERATED (Table 16B, Table 16B-12, …)	Table 16B indicates the Table 16B: Mapping of Absolute Grant Value in [9] and Table 16B-12 indicates the Table 16B.12: Alternative Mapping of Absolute Grant Value in [9].

9.2.2.62 E-RGCH Power Offset

The *E-RGCH Power Offset* IE indicates the Power offset relative to the pilot bits on the DL DPCCH except when F-DPCH is configured. When F-DPCH is configured, the *E-RGCH Power Offset* IE indicates the Power offset relative to the power of transmitted TPC bits on the F-DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-RGCH Power Offset			INTEGER (0..255,…)	Unit: dB Range: -32 .. +31.75 dB Step: 0.25 dB

9.2.2.63 E-HICH Power Offset

The *E-HICH Power Offset* IE indicates the Power offset relative to the pilot bits on the DL DPCCH except when F-DPCH is configured. When F-DPCH is configured, the *E-HICH Power Offset* IE indicates the Power offset relative to the power of transmitted TPC bits on the F-DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-HICH Power Offset			INTEGER (0..255,…)	Unit: dB Range: -32 .. +31.75 dB

				Step: 0.25 dB

9.2.2.64 E-RGCH 2-Index-Step Threshold

The E-RGCH 2-index-step-threshold IE is used to determine the Serving Grant.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-RGCH 2-Index-Step Threshold			INTEGER (0..37)	Refers to an index in the "SG-Table" (see [41]).

9.2.2.65 E-RGCH 3-Index-Step Threshold

The E-RGCH 3-index-step-threshold IE is used to determine the Serving Grant.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-RGCH 3-Index-Step Threshold			INTEGER (0..37)	Refers to an index in the "SG-Table" (see [41]).

9.2.2.66 HARQ Info for E-DCH

The HARQ Info for E-DCH is used to indicate the use of redundancy version (RV) for the EDCH HARQ transmissions.

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
HARQ Info for E-DCH			ENUMERATED (rv0, rvtable)	"rv0" indicates that the UE will only use E_DCH RV index 0. "rvtable" indicates that the UE will use an RSN based RV index as specified in [9]

9.2.2.67 DCH Indicator For E-DCH-HSDPA Operation

The DCH Indicator For E-DCH-HSDPA Operation parameter indicates whether *DCH Information* IE should be ignored in the message in which the *DCH Indicator For E-DCH-HSDPA Operation* IE is included.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DCH Indicator For E-DCH-HSDPA Operation			ENUMERATED (DCH not present)	

9.2.2.68 E-RGCH and E-HICH Channelisation Code Validity Indicator

The *E-RGCH and E-HICH Channelisation Code Validity Indicator* parameter indicates if the *E-RGCH and E-HICH Channelisation Code* IE shall be ignored in the *E-DCH FDD DL Control Channel Information* IE in which the *E-RGCH and E-HICH Channelisation Code Validity Indicator* IE was included.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-RGCH and E-HICH Channelisation Code Validity Indicator			ENUMERATED (E-RGCH and E-HICH Channelisation Code not valid)	

9.2.2.69 E-DCH Minimum Set E-TFCI Validity Indicator

The *E-DCH Minimum Set E-TFCI Validity Indicator* parameter indicates if the *E-DCH Minimum Set E-TFCI* IE shall be ignored in the *E-DCH Transport Format Combination Set Information* IE in which the *E-DCH Minimum Set E-TFCI Validity Indicator* IE was included.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH Minimum Set E-TFCI Validity Indicator			ENUMERATED (E-DCH Minimum Set E-TFCI not valid)	

9.2.2.70 Fast Reconfiguration Mode

The *Fast Reconfiguration Mode* IE is used to notify the DRNS that the SRNC would like to use the activation time "when the UE is detected on the new configuration" as the timing for the reconfiguration.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Fast Reconfiguration Mode			ENUMERATED (Fast)	

9.2.2.71 Fast Reconfiguration Permission

The *Fast Reconfiguration Permission* IE is used to indicate to the SRNC that the DRNS can apply the activation time "when the UE is detected on the new configuration" for this reconfiguration.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Fast Reconfiguration Permission			ENUMERATED (Allowed)	

9.2.2.72 Continuous Packet Connectivity DTX-DRX Information

The *Continuous Packet Connectivity DTX-DRX Information* IE defines the parameters used for Continuos Packet Connectivity DTX-DRX operation (see ref. [10]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UE DTX DRX Offset	M		INTEGER (0..159)	Units of subframes. Offset of the UE DTX and DRX cycles

				at the given TTI
Enabling Delay	M		ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128)	Units of radio frames
DTX Information		*1*		
>CHOICE E-DCH TTI Length	M			
>>*2ms*				
>>>UE DTX Cycle 1	M		ENUMERATED (1, 4, 5, 8, 10, 16, 20)	Units of subframes
>>>UE DTX Cycle 2	M		ENUMERATED (4, 5, 8, 10, 16, 20, 32, 40, 64, 80, 128, 160)	Units of subframes
>>>MAC DTX Cycle	M		ENUMERATED (1, 4, 5, 8, 10, 16, 20)	Units of subframes
>>*10ms*				
>>>UE DTX Cycle 1	M		ENUMERATED (1, 5, 10, 20)	Units of subframes
>>>UE DTX Cycle 2	M		ENUMERATED (5, 10, 20, 40, 80, 160)	Units of subframes
>>>MAC DTX Cycle	M		ENUMERATED (5, 10, 20)	Units of subframes
>Inactivity Threshold for UE DTX Cycle 2	M		ENUMERATED (1, 4, 8, 16, 32, 64, 128, 256)	Units of E-DCH TTIs
>UE DTX Long Preamble	M		ENUMERATED (2,4,15)	Units of slots
>MAC Inactivity Threshold	M		ENUMERATED (1, 2, 4, 8, 16, 32, 64, 128, 256, 512, Infinity)	Units of E-DCH TTIs
>CQI DTX Timer	M		ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, Infinity)	Units of subframes
>UE DPCCH burst1	M		ENUMERATED (1, 2, 5)	Units of subframes
>UE DPCCH burst2	M		ENUMERATED (1, 2, 5)	Units of subframes
DRX Information		*0..1*		
>UE DRX Cycle	M		ENUMERATED (4, 5, 8, 10, 16, 20)	Units of subframes
>Inactivity Threshold for UE DRX Cycle	M		ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128, 256, 512)	Units of subframes
>Inactivity Threshold for UE Grant Monitoring	M		ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128, 256)	Units of E-DCH TTIs

IE/Group Name			IE Type and Reference	Semantics Description
>UE DRX Grant Monitoring	M		BOOLEAN	True: DRX Grant Monitoring shall be applied. False: DRX Grant Monitoring shall not be applied.

9.2.2.73 Continuous Packet Connectivity DTX-DRX Information To Modify

The *Continuous Packet Connectivity DTX-DRX Information To Modify* IE is used for modification of Continuous Packet Connectivity DTX-DRX information in a UE Context. The *Continuous Packet Connectivity DTX-DRX Information To Modify* IE shall include at least one of the following IE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UE DTX DRX Offset	O		INTEGER (0..159)	Units of subframes. Offset of the UE DTX and DRX cycles at the given TTI
Enabling Delay	O		ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128)	Units of radio frames
CHOICE *DTX Information To Modify*	O			
>*Modify*				
>>CHOICE E-DCH TTI Length	O			
>>>*2ms*				
>>>>UE DTX Cycle 1	O		ENUMERATED (1, 4, 5, 8, 10, 16, 20)	Units of subframes
>>>>UE DTX Cycle 2	O		ENUMERATED (4, 5, 8, 10, 16, 20, 32, 40, 64, 80, 128, 160)	Units of subframes
>>>>MAC DTX Cycle	O		ENUMERATED (1, 4, 5, 8, 10, 16, 20)	Units of subframes
>>>*10ms*				
>>>>UE DTX Cycle 1	O		ENUMERATED (1, 5, 10, 20)	Units of subframes
>>>>UE DTX Cycle 2	O		ENUMERATED (5, 10, 20, 40, 80, 160)	Units of subframes
>>>>MAC DTX Cycle	O		ENUMERATED (5, 10, 20)	Units of subframes
>>Inactivity Threshold for UE DTX Cycle 2	O		ENUMERATED (1, 4, 8, 16, 32, 64, 128, 256)	Units of E-DCH TTIs
>>UE DTX Long Preamble	O		ENUMERATED (2,4,15)	Units of slots
>>MAC Inactivity Threshold	O		ENUMERATED (1, 2, 4, 8, 16, 32, 64, 128, 256, 512, Infinity)	Units of E-DCH TTIs

>>CQI DTX Timer	O		ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, Infinity)	Units of subframes
>>UE DPCCH burst1	O		ENUMERATED (1, 2, 5)	Units of subframes
>>UE DPCCH burst2	O		ENUMERATED (1, 2, 5)	Units of subframes
>*Deactivate*				
CHOICE *DRX Information To Modify*	O			
>*Modify*				
>>UE DRX Cycle	O		ENUMERATED (4, 5, 8, 10, 16, 20)	Units of subframes
>>Inactivity Threshold for UE DRX Cycle	O		ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128, 256, 512)	Units of subframes
>>Inactivity Threshold for UE Grant Monitoring	O		ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128, 256)	Units of E-DCH TTIs
>>UE DRX Grant Monitoring	O		BOOLEAN	True = DRX Grant Monitoring shall be applied. False = DRX Grant Monitoring shall not be applied.
>*Deactivate*			NULL	

9.2.2.74 Continuous Packet Connectivity HS-SCCH less Information

The *Continuous Packet Connectivity HS-SCCH less Information* IE defines the parameters used for Continuos Packet Connectivity HS-SCCH less operation (see ref. [10]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transport Block Size List		*1..<maxno ofHS-DSCHTBS sHS-SCCHless >*		
>Transport Block Size Index	M		INTEGER (1..maxnoofHS-DS CHTBSs)	
>HS-PDSCH Second Code Support	M		BOOLEAN	True = The second HS-PDSCH code shall also be used False = The second HS-PDSCH code shall not be used

Range Bound	Explanation
maxnoofHS-DSCHTBSsHS-SCCHless	Maximum number of HS-DSCH Transport Block Sizes used for HS-SCCH-less operation
maxnoofHS-DSCHTBSs	Maximum number of HS-DSCH Transport Block Sizes

9.2.2.75 Continuous Packet Connectivity HS-SCCH less Information Response

The *Continuous Packet Connectivity HS-SCCH less Information Response* IE provides information for HS-SCCH less operation determined within the Node B (see ref. [10]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-PDSCH First Code Index	M		INTEGER (1..maxHS-PDSCH CodeNrComp-1)	Index of first HS-PDSCH code
HS-PDSCH Second Code Index	O		INTEGER (1..maxHS-PDSCH CodeNrComp-1)	Index of second HS-PDSCH code

Range Bound	Explanation
maxHS-PDSCHCodeNrComp	Maximum number of codes at the defined spreading factor, within the complete code tree

9.2.2.75A Continuous Packet Connectivity HS-SCCH Less Deactivate Indicator

The *Continuous Packet Connectivity HS-SCCH Less Deactivate Indicator* IE is used to deactive HS-SCCH less operation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Continuous Packet Connectivity HS-SCCH Less Deactivate Indicator	M		NULL	

9.2.2.76 MIMO Activation Indicator

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MIMO Activation Indicator	M		NULL	

9.2.2.77 MIMO Mode Indicator

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MIMO Mode Indicator	M		ENUMERATED (Activate, Deactivate)	

9.2.2.78 MIMO Information Response

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Pilot Configuration	M			
>*Primary and Secondary CPICH*				
>>MIMO S-CPICH Channelisation Code	M		INTEGER (0..255)	
>*Normal and Diversity Primary CPICH*			NULL	
MIMO N/M Ratio	M		ENUMERATED (1/2, 2/3, 3/4, 4/5, 5/6, 6/7, 7/8, 8/9, 9/10, 1/1,…)	

9.2.2.79 SixtyfourQAM DL Support Indicator

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SixtyfourQAM DL Support Indicator			ENUMERATED (SixtyfourQAM DL Supported, SixtyfourQAM DL Not Supported)	

9.2.2.79A Sixtyfour QAM Usage Allowed Indicator

The *Sixtyfour QAM Usage Allowed Indicator* IE indicates whether the Node B is allowed to use 64 QAM modulation for HS-DSCH transmission or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Sixtyfour QAM Usage Allowed Indicator	M		ENUMERATED (Allowed, Not-Allowed)	

9.2.2.79B SixtyfourQAM DL Usage Indicator

The *SixtyfourQAM DL Usage Indicator* IE indicates if the Node B is using 64 QAM modulation for the HS-DSCH transmission, or if the Node B is not using 64 QAM modulation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SixtyfourQAM DL Usage Indicator			ENUMERATED (SixtyfourQAM DL Used, SixtyfourQAM DL	

			Not Used)	

9.2.2.80 Enhanced FACH Support Indicator

This IE indicates the Enhanced FACH Support.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Enhanced FACH Support Indicator			NULL	

9.2.2.81 Enhanced PCH Support Indicator

Void.

9.2.2.82 Priority Queue Information for Enhanced FACH/PCH

The *Priority Queue Information for Enhanced FACH/PCH* IE provides information associated to HSDPA Priority Queue used for Enhanced FACH and/or Enhanced PCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Priority Queue Information		*1..<maxno ofPrioQue ues>*		
>Priority Queue ID	M		9.2.1.45A	
>Scheduling Priority Indicator	M		9.2.1.51A	
>T1	M		9.2.1.54A	
>MAC-ehs Reset Timer	M		9.2.2.89	
>Discard Timer	O		9.2.1.19C	
>MAC-hs Window Size	M		9.2.1.34C	
>Maximum MAC-d PDU Size	M		MAC PDU Size Extended 9.2.1.34D	
>Maximum MAC-d PDU Size Extended	M		MAC PDU Size Extended 9.2.1.34D	

Range Bound	Explanation
maxnoofPrioQueues	Maximum number of Priority Queues

9.2.2.83 SixteenQAM UL Information

Void.

9.2.2.84 SixteenQAM UL Information To Modify

Void.

9.2.2.85 F-DPCH Slot Format

The *F-DPCH Slot Format* IE defines the F-DPCH slot format for the TPC bits, as defined in [8].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
F-DPCH Slot Format			INTEGER (0..9)	

9.2.2.86 F-DPCH Slot Format Support Request

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
F-DPCH Slot Format Support Request			NULL	

9.2.2.87 Max UE DTX Cycle

The *Max UE DTX Cycle* IE defines the maximum UE DTX cycle supported by the Node B for Continuous Packet Connectivity DTX-DRX operation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Max UE DTX Cycle	M		ENUMERATED (v5, v10, v20, v40, v64, v80, v128, v160,…)	Units of subframes

9.2.2.88 Enhanced PCH Capability

This IE indicates the UE is capable of Enhanced PCH or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Enhanced PCH Capability			ENUMERATED (Enhanced PCH Capable, Enhanced PCH Not Capable)	

9.2.2.89 MAC-ehs Reset Timer

The *MAC-ehs Reset Timer* IE is used as Reset Timer(Treset) described in ref [41] subclause 11.6.4.5.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
MAC-ehs Reset Timer			ENUMERATED (1, 2, 3, 4, …)	Timer in multiples of T1 values (milliseconds). Used when MAC-ehs reordering

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				queue is reset in CELL_FACH and CELL_PCH

9.2.2.90   SixteenQAM UL Operation Indicator

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SixteenQAM UL Operation Indicator	O		ENUMERATED (Activate, Deactivate)	

9.2.2.91   E-TFCI Boost Information

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-TFCI BetaEC Boost	M		INTEGER (0..127,…)	E-TFCI threshold beyond which boosting of E-DPCCH is enabled
UL Delta T2TP	*C-E-TFCIboost 127*		INTEGER (0..6,…)	Total E-DPDCH power across all codes to the combined power of DPCCH and E-DPCCH

Condition	Explanation
E-TFCIboost127	The IE shall be present if the E-TFCI BetaEC Boost IE value is not set o 127.

9.2.3   TDD Specific Parameters

This subclause contains parameters that are specific to TDD.

9.2.3.a   Alpha Value

Used to support signalling of cell specific Alpha Value to SRNS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Alpha Value			ENUMERATED(0, 1/8, 2/8, 3/8, 4/8, 5/8, 6/8, 7/8, 1)	

9.2.3.A   Block STTD Indicator

Void.

9.2.3.1   Burst Type

Void.

9.2.3.1a Cell Capability Container TDD

The Cell Capability Container TDD indicates which functionalities a 3.84Mcps TDD cell supports.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Capability Container TDD			BIT STRING (32)	Each bit indicates whether a cell supports a particular functionality or not. The value 1 of a bit indicates that the corresponding functionality is supported in a cell and value 0 indicates that the corresponding functionality is not supported in a cell. Each bit is defined as follows. The first bit: Delayed Activation Support Indicator. The second bit: HS-DSCH Support Indicator. The third bit: DSCH Support Indicator. The fourth bit: Flexible MAC-d PDU Size Support Indicator. Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.

9.2.3.1b Cell Capability Container TDD LCR

The Cell Capability Container TDD LCR indicates which functionalities a cell supports.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Capability Container TDD LCR			BIT STRING (32)	Each bit indicates whether a cell supports a particular functionality or not. The value 1 of a bit indicates that the corresponding functionality is supported in a cell and value 0 indicates that the corresponding functionality is not supported in a cell. Each bit is defined as follows. The first bit: Delayed Activation Support Indicator. The second bit: HS-DSCH

			Support Indicator.
			The third bit: DSCH Support Indicator.
			The fourth bit: Flexible MAC-d PDU Size Support Indicator.
			Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.

9.2.3.2 CCTrCH ID

The CCTrCH ID identifies unambiguously a CCTrCH inside a Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CCTrCH ID			INTEGER (0..15)	

9.2.3.2A DCH TDD Information

The *DCH TDD Information* IE provides information for DCHs to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DCH Information		*1..<maxno ofDCHs>*			–	
>Payload CRC Presence Indicator	M		9.2.1.42		–	
>UL FP Mode	M		9.2.1.67		–	
>ToAWS	M		9.2.1.58		–	
>ToAWE	M		9.2.1.57		–	
>DCH Specific Info		*1..<maxno ofDCHs>*			–	
>>DCH ID	M		9.2.1.16		–	
>>CCTrCH ID	M		9.2.3.2	UL CCTrCH in which the DCH is mapped	–	
>>CCTrCH ID	M		9.2.3.2	DL CCTrCH in which the DCH is mapped	–	
>>TrCH Source Statistics	M		9.2.1.65		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Descriptor						
>>Transport Format Set	M		9.2.1.64	For the UL.	–	
>>Transport Format Set	M		9.2.1.64	For the DL.	–	
>>BLER	M		9.2.1.4	For the UL.	–	
>>BLER	M		9.2.1.4	For the DL.	–	
>>Allocation/Retention Priority	M		9.2.1.1		–	
>>Frame Handling Priority	M		9.2.1.29		–	
>>QE-Selector	C-CoorDCH		9.2.1.46A		–	
>>Guaranteed Rate Information	O		9.2.1.30M		YES	ignore
>>Traffic Class	M		9.2.1.58A		YES	ignore
>>Unidirectional DCH Indicator	O		9.2.1.68B		YES	reject
>TNL QoS	O		9.2.1.56A		YES	ignore

Condition	Explanation
CoorDCH	The IE shall be present if this DCH is part of a set of coordinated DCHs (number of instances of the *DCH Specific Info* IE is greater than 1).

Range bound	Explanation
maxnoofDCHs	Maximum number of DCHs for one UE.

9.2.3.2B   DCH TDD Information Response

Void

9.2.3.2C   DL Timeslot Information

The *DL Timeslot Information* IE provides information on the time slot allocation for a DL DPCH at 3.84Mcps.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DL Timeslot Information		*1..<maxnoOfTS>*			–	
>Time Slot	M		9.2.1.56		–	
>Midamble Shift And Burst Type	M		9.2.3.4		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>TFCI Presence	M		9.2.1.55		–	
>DL Code Information	M		TDD DL Code Information 9.2.3.8C		–	

Range bound	Explanation
maxnoofTSs	Maximum number of Timeslots for a UE.

9.2.3.2D DL Time Slot ISCP Info

The *DL Time Slot ISCP Info* IE gives interference level for each DL time slot within the Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DL Time Slot ISCP Info		*1..<maxnoofDLts>*			–	
>Time Slot	M		9.2.1.56		–	
>DL Timeslot ISCP	M		9.2.3.12		–	

Range bound	Explanation
maxnoofDLts	Maximum number of downlink time slots per Radio Link for 3.84Mcps TDD.

9.2.3.2E DL Timeslot Information LCR

The *DL Timeslot Information LCR* IE provides information for DL Timeslot to be established for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DL Timeslot Information LCR		*1 .. <maxnoofDLtsLCR>*			–	
>Time Slot LCR	M		9.2.3.12a		–	
>Midamble Shift LCR	M		9.2.3.4C		–	
>TFCI Presence	M		9.2.1.57		–	
>DL Code Information LCR	M		TDD DL Code Information LCR 9.2.3.8D		–	

>Maximum DL TX Power	O		DL Power 9.2.1.21A	Maximum allowed power on DPCH	YES	ignore
>Minimum DL TX Power	O		DL Power 9.2.1.21A	Minimum allowed power on DPCH	YES	ignore

Range bound	Explanation
maxnoofDLtSLCR	Maximum number of Downlink time slots per Radio Link for 1.28Mcps TDD.

9.2.3.2F DL Time Slot ISCP Info LCR

The D*L Time Slot ISCP Info LCR* IE provides information for DL Interference level for each time slot within the Radio Link for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DL Time Slot ISCP Info LCR		*1 .. <maxnoofU LtsLCR>*			–	
>Time Slot LCR	M		9.2.3.12a		–	
>DL Timeslot ISCP	M		9.2.3.12		–	

Range bound	Explanation
maxnoofULtsLCR	Maximum number of Uplink time slots per Radio Link for 1.28Mcps TDD

9.2.3.3 DPCH ID

The DPCH ID identifies unambiguously a DPCH inside a Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DPCH ID			INTEGER (0..239)	

9.2.3.3a DSCH TDD Information

The *DSCH TDD Information* IE provides information for DSCHs to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DSCH TDD Information		*1..<maxno ofDSCHs>*			–	

>DSCH ID	M		9.2.3.3ae		–	
>CCTrCH ID	M		9.2.3.2	DL CCTrCH in which the DSCH is mapped.	–	
>TrCH Source Statistics Descriptor	M		9.2.1.65		–	
>Transport Format Set	M		9.2.1.64		–	
>Allocation/Retention Priority	M		9.2.1.1		–	
>Scheduling Priority Indicator	M		9.2.1.51A		–	
>BLER	M		9.2.1.4		–	
>Traffic Class	M		9.2.1.58A		YES	ignore
>Binding ID	O		9.2.1.3	Shall be ignored if bearer establishmen t with ALCAP.	YES	ignore
>Transport Layer Address	O		9.2.1.62	Shall be ignored if bearer establishmen t with ALCAP.	YES	ignore
>TNL QoS	O		9.2.1.56A	Shall be ignored if bearer establishmen t with ALCAP.	YES	ignore

Range bound	Explanation
maxnoofDSCHs	Maximum number of DSCHs for one UE.

9.2.3.3aa   HS-DSCH TDD Information

The *HS-DSCH TDD Information* IE is used for initial addition of HS-DSCH information to a UE Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-DSCH MAC-d Flows Information	M		9.2.1.30OA		–	
UE Capabilities Information		1			–	
>HS-DSCH Physical Layer Category	M		9.2.1.30Oa		–	

>1.28 Mcps TDD uplink physical channel capability	O		9.2.3.10D	Applicable to 1.28Mcps TDD only	YES	ignore
>Number of Supported Carriers	O		ENUMERATED (One-one carrier, One-three carrier, Three-three carrier, One-six carrier, Tree-six carrier, Six-six carrier, ...)	Applicable to 1.28Mcps TDD only This IE indicates the number of carrier that UE can support at the same time,where " One-three carrier" means the number of supported carrier is one for the uplink,and three for the downlink.	YES	reject
>Multi-carrier HS-DSCH Physical Layer Category	O		9.2.1.30Oa	Applicable to 1.28Mcps TDD only	YES	ignore
MAC-hs Reordering Buffer Size for RLC-UM	M		9.2.1.34Ab		−	
TDD ACK NACK Power Offset	M		9.2.3.7I		−	
HS-DSCH MAC-d PDU Size Format	O		9.2.1.30OC	If not present, "Indexed MAC-d PDU Size" shall be used.	YES	reject
HS-SICH SIR Target	O		UL SIR 9.2.1.69	Applicable to 1.28Mcps TDD only	YES	ignore
HS-SICH TPC step size	O		9.2.3.10a	Applicable to 1.28Mcps TDD only	YES	ignore
TSN-Length	O		9.2.3.3ai	Applicable for 1.28Mcps TDD when using multiple frequencies	YES	reject

9.2.3.3ab HS-DSCH TDD Information Response

The *HS-DSCH TDD Information Response* IE provides information for HS-DSCH that have been established or modified. It also provides additional HS-DSCH information determined within the DRNS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-DSCH MAC-d Flow Specific Information Response		*0..<maxno ofMACdFl ows>*			–	
>HS-DSCH MAC-d Flow ID	M		9.2.1.30O		–	
>Binding ID	O		9.2.1.3		–	
>Transport Layer Address	O		9.2.1.62		–	
>HS-DSCH Initial Capacity Allocation	O		9.2.1.30Na		–	
HS-SCCH Specific Information Response		*0..<maxno ofHSSCC Hcodes>*		Not applicable to 1.28 Mcps TDD or 7.68Mcps TDD	GLOBAL	reject
>Time Slot	M		9.2.1.56		–	
>Midamble Shift And Burst Type	M		9.2.3.4		–	
>TDD Channelisation Code	M		9.2.3.8		–	
>HS-SICH Information		*1*			–	
>>HS SICH ID	M		9.2.3.3ad		–	
>>Time Slot	M		9.2.1.56		–	
>>Midamble Shift And Burst Type	M		9.2.3.4		–	
>>TDD Channelisation Code	M		9.2.3.8		–	
HS-SCCH Specific Information Response LCR		*0..<maxno ofHSSCC Hcodes>*		Not applicable to 3.84 Mcps TDD or 7.68Mcps TDD	GLOBAL	reject
>Time Slot LCR	M		9.2.3.12a		–	
>Midamble shift LCR	M		9.2.3.4C		–	
>First TDD Channelisation Code	M		TDD Channelisation Code 9.2.3.8		–	
>Second TDD	M		TDD Channelisa		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Channelisation Code			tion Code 9.2.3.8			
>HS-SICH Information LCR		*1*			–	
>>HS SICH ID	M		9.2.3.3ad		–	
>>Time Slot LCR	M		9.2.3.12a		–	
>>Midamble shift LCR	M		9.2.3.4C		–	
>>TDD Channelisation Code	M		9.2.3.8		–	
>Used Frequency	O		UARFCN 9.2.1.66	Applicable for 1.28Mcps TDD when using multiple frequencies. this IE indicates the frequency which is actually used by the HS-SCCH.	YES	reject
>UARFCN	O		9.2.1.66	Corresponds to Nt (3GPP TS 25.105) Applicable for 1.28Mcps TDD when using multiple frequencies. See note1 below	YES	ignore
HS-SCCH Specific Information Response 7.68 Mcps		*0..<maxno ofHSSCC Hcodes>*		Applicable to 7.68 Mcps TDD only	YES	ignore
>Time Slot	M		9.2.1.56		–	
>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.23		–	
>TDD Channelisation Code 7.68Mcps	M		9.2.3.25		–	
>HS-SICH Information		*1*			–	
>>HS SICH ID	M		9.2.3.3ad		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>Time Slot	M		9.2.1.56		–	
>>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.23		–	
>>TDD Channelisation Code 7.68Mcps	M		9.2.3.25		–	
HS-PDSCH Timeslot Specific Information Response		*0..<maxno ofDLts>*		Not Applicable to 1.28Mcps TDD or 7.68Mcps TDD.	GLOBAL	reject
>Time Slot	M		9.2.1.56		–	
>Midamble Shift And Burst Type	M		9.2.3.4		–	
HS-PDSCH Timeslot Specific Information Response LCR		*0..<maxno ofDLtsLC R>*		Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	GLOBAL	reject
>Time Slot LCR	M		9.2.3.12a		–	
>Midamble Shift LCR	M		9.2.3.4C		–	
HS-PDSCH Timeslot Specific Information Response 7.68Mcps		*0..<maxno ofDLts>*		Applicable to 7.68Mcps TDD only.	YES	Ignore
>Time Slot	M		9.2.1.56		–	
>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.23		–	
HARQ Memory Partitioning	O		9.2.1.116		–	
User Plane Congestion Fields Inclusion	O		9.2.1.70C		YES	ignore
HS-SCCH Specific Information Response LCR per UARFCN		*0..<maxH SDPAFreq uency-1>*		Applicable for 1.28Mcps TDD	GLOBAL	reject
>HS-SCCH Specific Information Response LCR		*1..<maxN oOfHSSC CHcodes>*			–	
>>Time Slot LCR	M		9.2.3.12a		–	
>>Midamble Shift LCR	M		9.2.3.4C		–	
>>First TDD Channelisation Code	M		TDD Channelisation Code		–	

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IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
			9.2.3.8			
>>Second TDD Channelisation Code	M		TDD Channelisation Code 9.2.3.8		−	
>>HS-SICH Information LCR		*1*			−	
>>>HS SICH ID	M		9.2.3.3ad			
>>>Time Slot LCR	M		9.2.3.12a		−	
>>>Midamble Shift LCR	M		9.2.3.4C		−	
>>>TDD Channelisation Code	M		9.2.3.8		−	
>>Used Frequency	O		UARFCN 9.2.1.66	Applicable for 1.28Mcps TDD when using multiple frequencies. this IE indicates the frequency which is actually used by the HS-SCCH.	YES	reject
>UARFCN	O		9.2.1.66	Corresponds to Nt □3GPP TS 25.105□ Applicable for 1.28Mcps TDD when using multiple frequencies. See note 1 below	YES	ignore
>HARQ Memory Partitioning per UARFCN		*0..<maxHSDPAFrequency-1>*				
>>HARQ Memory Partitioning	O		9.2.1.116		−	
>UARFCN	O		9.2.1.66	Corresponds to Nt □3GPP TS 25.105□	YES	ignore

ETSI

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
				Applicable for 1.28Mcps TDD when using multiple frequencies. See note 1 below		
Multi-Carrier number	O		Integer(1.. *maxHSDPAFrequency*)	Applicable for 1.28Mcps TDD when using multiple frequencies.	YES	ignore

Note 1: This information element is a simplified representation of the ASN.1 description.

Range bound	Explanation
maxnoofMACdFlows	Maximum number of MAC-d flows.
maxnoofHSSCCHcodes	Maximum number of HS-SCCH codes.
maxnoofDLts	Maximum number of downlink time slots per Radio Link for 3.84Mcps TDD.
maxnoofDLtsLCR	Maximum number of Downlink time slots per Radio Link for 1.28Mcps TDD.
maxHSDPAFrequency	Maximum number of Frequency that UE can support HSDPA

9.2.3.3ac   HS-DSCH TDD Update Information

The *HS-DSCH TDD Update Information* IE provides information for HS-DSCH to be updated. At least one IE shall be presented.

IE/Group name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
HS-SCCH Code Change Indicator	O		9.2.1.30R		–	
TDD ACK NACK Power Offset	O		9.2.3.7I		–	

9.2.3.3ad   HS-SICH ID

The HS-SICH ID identifies unambiguously a HS-SICH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS SICH ID			INTEGER (0..31)	For 1.28Mcps TDD, the IE is INTEGER (0..255). In ASN.1, it is presented by another IE for the value beyond the 31.

9.2.3.3ae   DSCH ID

The DSCH ID is the identifier of an active downlink shared channel. It is unique for each active DSCH among the active DSCHs simultaneously allocated for the same UE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DSCH ID			INTEGER (0..255)	

9.2.3.3af   DSCH Initial Window Size

Indicates the initial number of MAC-c/sh SDUs that may be transmitted before new credits are received from the DRNC.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DSCH Initial Window Size			INTEGER (1..255)	Number of MAC-c/sh SDUs: 255 = Unlimited number of MAC-c/sh SDUs.

9.2.3.3ag   DSCH Flow Control Information

The *DSCH Flow Control Information* IE provides flow control information for each scheduling priority class for the DSCH FP over Iur.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DSCH Flow Control Information		*1..16*			–	
>DSCH Scheduling Priority	M		Scheduling Priority Indicator 9.2.1.51A		–	
>MAC-c/sh SDU Length		*1..<maxN bMAC-c/shSDUL ength>*			–	
>>MAC-c/sh SDU Length	M		9.2.1.34		–	
>DSCH Initial Window Size	O		9.2.3.3af		YES	ignore

Range bound	Explanation
maxNbMAC-c/shSDULength	Maximum number of different MAC-c/sh SDU lengths.

9.2.3.3ah   DSCH-RNTI

DSCH-RNTI is the UE identifier allocated by DRNS to be used over the radio interface by UEs having one or several DSCHs and/or USCHs. It is unique within a cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DSCH-RNTI			INTEGER(0 ..65535)	

9.2.3.3ai   TSN-Length

The IE indicates the TSN length.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TSN-Length			ENUMERATED (tsn-6bits, tsn-9bits)	

9.2.3.3A   Maximum Number of Timeslots

Defines the maximum number of timeslots the UE has the capability of receiving or transmitting. [3.84Mcps TDD and 7.68Mcps TDD – in a frame] [1.28Mcps TDD – in a subframe]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Number of Timeslots			INTEGER (1..14)	For 1.28Mcps TDD the values 7 through 14 are not used.

9.2.3.3B   Maximum Number of UL Physical Channels per Timeslot

Defines the maximum number of physical channels [3.84Mcps TDD and 7.68Mcps TDD – per frame] [1.28Mcps TDD – per subframe] that the UE is capable to transmit.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Number of UL Physical Channels per Timeslot			INTEGER (1..2)	

9.2.3.3C   Maximum Number of DL Physical Channels

Defines the maximum number of physical channels [3.84Mcps TDD – per frame] [1.28Mcps TDD – per subframe] that the UE is capable to receive.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Number of DL Physical Channels			INTEGER (1..224)	For 1.28Mcps TDD the values 97 through 224 are not used.

9.2.3.3D Maximum Number of DL Physical Channels per Timeslot

Defines the maximum number of physical channels per timeslot that the UE is capable to receive.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Number of DL Physical Channels per Timeslot			INTEGER (1..16)	

9.2.3.4 Midamble Shift And Burst Type

This information element indicates burst type and midamble allocation.

Three different midamble allocation schemes exist:

- Default midamble: the midamble is allocated by layer 1 depending on the associated channelisation code (DL and UL);

- Common midamble: the midamble is allocated by layer 1 depending on the number of channelisation codes (possible in DL only);

- UE specific midamble: a UE specific midamble is explicitly assigned (DL and UL).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Burst Type*				
>*Type 1*				
>> Midamble Configuration Burst Type 1 And 3	M		ENUMERATED(4, 8, 16)	As defined in [12]
>>Midamble Allocation Mode	M		ENUMERATED(Default midamble, Common midamble, UE specific midamble)	
>>Midamble Shift Long	C-UE		INTEGER(0..15)	
>*Type 2*				
>> Midamble Configuration Burst Type 2	M		ENUMERATED (3, 6)	As defined in [12]
>>Midamble Allocation Mode	M		ENUMERATED(Default midamble, Common midamble, UE specific midamble)	

>>Midamble Shift Short	C-UE		INTEGER (0..15)	
>*Type 3*				UL only
>> Midamble Configuration Burst Type 1 And 3	M		ENUMERATED (4, 8, 16)	As defined in [12]
>>Midamble Allocation Mode	M		ENUMERATED(Default midamble, UE specific midamble)	
>>Midamble Shift Long	C-UE		INTEGER(0..15)	

Condition	Explanation
UE	The IE shall be present if the *Midamble Allocation Mode* IE is set to "UE-specific midamble".

9.2.3.4A   Minimum Spreading Factor

Defines the minimum spreading factor the UE has the capability of receiving or transmitting.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Minimum Spreading Factor			INTEGER (1..16)	

9.2.3.4B   IPDL TDD parameters

The *IPDL TDD Parameters* IE provides the information for the IPDL Configuration applied in 3.84Mcps TDD mode.

IE/Group name	Presence	Range	IE Type and Reference	Semantics Description
IP Spacing TDD	M		ENUMERATED(30,40,50, 70, 100,…)	See [22]
IP Start	M		INTEGER(0..4095)	See [22]
IP Slot	M		INTEGER(0..14)	See [22]
IP P-CCPCH	M		ENUMERATED(Switch off 1 frame, Switch off 2 frames)	See [22]
Burst mode parameters	O		9.2.1.4B	

9.2.3.4Bb   IPDL TDD parameters LCR

The *IPDL TDD Parameters LCR* IE provides the information for the IPDL Configuration applied in 1.28Mcps TDD mode.

IE/Group name	Presence	Range	IE Type and Reference	Semantics Description
IP Spacing TDD	M		ENUMERATED(30,40,50, 70, 100,…)	See [22]
IP Start	M		INTEGER(0 ..4095)	See [22]
IP_Sub	M		ENUMERATED(First,Second,Both)	See [22]
Burst mode parameters	O		9.2.1.4B	

9.2.3.4C   Midamble shift LCR

This information element indicates midamble allocation in 1.28Mcps TDD.

Three different midamble allocation schemes exist:

- Default midamble: the midamble is allocated by layer 1 depending on the associated channelisation code (DL and UL);

- Common midamble: the midamble is allocated by layer 1 depending on the number of channelisation codes (possible in DL only);

- UE specific midamble: a UE specific midamble is explicitly assigned (DL and UL).

IE/Group name	Presence	Range	IE Type and Reference	Semantics Description
Midamble Allocation Mode	M		*ENUMERATED*(Default midamble, Common midamble, UE specific midamble,...)	
Midamble Shift Long	C-UE		INTEGER(0 ..15)	
Midamble Configuration LCR	M		ENUMERATED (2, 4, 6, 8, 10, 12, 14, 16, ...)	As defined in [12]

Condition	Explanation
UE	The IE shall be present if the *Midamble Allocation Mode* IE is set to "UE-specific midamble".

9.2.3.4D   Neighbouring TDD Cell Information LCR

Void

9.2.3.5   Primary CCPCH RSCP

Received Signal Code Power is the received power on PCCPCH of the target cell after despreading. The reference point for the RSCP is the antenna connector at the UE, see ref. [14].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Primary CCPCH RSCP			INTEGER(0..91)	According to mapping of the non-negative values in ref. [24].

9.2.3.5a   Primary CCPCH RSCP Delta

Primary CCPCH RSCP Delta is the offset used to report the negative reporting range of P-CCPCH RSCP as per [24].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Primary CCPCH RSCP Delta			INTEGER(-5..-1,…)	If present, the actual value of Primary CCPCH RSCP = Primary CCPCH RSCP Delta

9.2.3.5A   PRACH Midamble

Void.

9.2.3.5B   RB Identity

The RB Identity is the identifier of a radio bearer. It is unique for each active Radio bearer among the active radio bearers simultaneously allocated for the same UE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RB Identity			INTEGER (0..31)	In line with [16], ch. 10.3.4.11

9.2.3.6   Repetition Length

The Repetition Length represents the number of consecutive Radio Frames inside a Repetition Period in which the same Time Slot is assigned to the same Physical Channel see ref. [16].

[1.28Mcps TDD- When applied to configure the E-DCH Non-scheduled Grant Information, the Repetition Length represents the number of consecutive Subframes, i.e. 5ms inside a Repetition Period in which the same Time Slot is assigned to the same Physical Channel see ref. [16].]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Repetition Length			INTEGER(1..63)	

9.2.3.7 Repetition Period

The Repetition Period represents the number of consecutive Radio Frames after which the same assignment scheme of Time Slots to a Physical Channel is repeated. This means that if the Time Slot *K* is assigned to a physical channel in the Radio Frame *J*, it is assigned to the same physical channel also in all the Radio Frames *J+n*Repetition Period* (where *n* is an integer) see ref. [16].

[1.28Mcps TDD- When applied to configure the E-DCH Non-scheduled Grant Information, the Repetition Period represents the number of consecutiveSubframes, i.e. 5ms after which the same assignment scheme of Time Slots to a Physical Channel is repeated see ref. [16].]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Repetition Period			ENUMERATED(1,2,4,8,16,32,64)	

9.2.3.7A Rx Timing Deviation

Measured Rx Timing Deviation as a basis for timing advance, either measured directly from a RACH burst, or calculated from the Rx Timing Deviation measurement on the USCH by adding the current Timing Advance value. For 1.28Mcps TDD this IE must be set to 0.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Rx Timing Deviation			INTEGER (0..127)	As specified in [5], ch. 6.2.7.6

9.2.3.7B Secondary CCPCH Info TDD

The *Secondary CCPCH Info TDD* IE provides information on the Secondary CCPCH that carries the logical channel SHCCH for the UE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
TFCS	M		9.2.1.63	For the DL.	–	
TFCI Coding	M		9.2.3.11		–	
Secondary CCPCH		0..<maxno ofSCCPC Hs>			–	
>Time Slot	M		9.2.1.56		–	
>Midamble Shift And Burst Type	M		9.2.3.4		–	
>TFCI Presence	M		9.2.1.55		–	
>Secondary CCPCH TDD Code Information	M		9.2.3.7C		–	
>TDD Physical Channel Offset	M		9.2.3.9		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>Repetition Length	M		9.2.3.6		–	
>Repetition Period	M		9.2.3.7		–	
FACH		0..maxnoofFACHs			–	
>TFS	M		9.2.1.64	For the DL.	–	
PCH		0..1			–	
>TFS	M		9.2.1.64	For the DL.	–	

Range bound	Explanation
maxnoofSCCPCHs	Maximum number of Secondary CCPCHs per CCTrCH.
maxnoofFACHs	Maximum number of FACHs mapped onto a Secondary CCPCH.

9.2.3.7C   Secondary CCPCH TDD Code Information

The *Secondary CCPCH TDD Code Information* IE provides TDD Channelisation Code information for all SCCPCHs of one Time Slot.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Secondary CCPCH TDD Code Information		*1..<maxnoOfSCCPCHs>*			–	
>TDD Channelisation Code	M		9.2.3.8		–	

Range bound	Explanation
maxnoofSCCPCHs	Maximum number of SCCPCHs for one CCTrCH.

9.2.3.7D   Special Burst Scheduling

The number of frames between special burst transmissions during DTX.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Special Burst Scheduling			*INTEGE*R(1, 2, .., 256)	Number of frames between special burst transmissions during DTX

9.2.3.7E   Synchronisation Configuration

The Synchronisation Configuration parameters that are used by the DRNS in the Radio Link Failure/Restore procedure.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
N_INSYNC_IND	M		*INTEGE*R(1, 2, .., 256)	
N_OUTSYNC_IND	M		*INTEGE*R(1, 2, .., 256)	
T_RLFAILURE	M		ENUMERA TED(0, 0.1, 0.2, .., 25.5)	Unit: seconds

9.2.3.7F   Secondary CCPCH Info TDD LCR

The *Secondary CCPCH Info TDD LCR* IE provides information on the Secondary CCPCH that carries the logical channel SHCCH for the UE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
TFCS	M		9.2.1.63	For the DL.	–	
TFCI Coding	M		9.2.3.11		–	
Secondary CCPCH		*0..<maxno ofSCCPC Hs>*			–	
>Time Slot LCR	M		9.2.3.12a		–	
>Midamble Shift LCR	M		9.2.3.4C		–	
>TFCI Presence	M		9.2.1.55		–	
>Secondary CCPCH TDD Code Information LCR	M		9.2.3.7G		–	
>TDD Physical Channel Offset	M		9.2.3.9		–	
>Repetition Length	M		9.2.3.6		–	
>Repetition Period	M		9.2.3.7		–	
FACH		*0..<maxno ofFACHs >*			–	
>TFS	M		9.2.1.64	For the DL.	–	
PCH		0..1			–	
>TFS	M		9.2.1.64	For the DL.	–	

Range bound	Explanation
maxnoofSCCPCHs	Maximum number of Secondary CCPCHs per CCTrCH.
maxnoofFACHs	Maximum number of FACHs mapped onto a Secondary CCPCH.

9.2.3.7G   Secondary CCPCH TDD Code Information LCR

The *Secondary CCPCH TDD Code Information LCR* IE provides LCR TDD Channelisation Code information for all SCCPCHs of one Time Slot.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Secondary CCPCH TDD Code Information		*1..<maxnoOfSCCPCHs>*			–	
>TDD Channelisation Code LCR	M		9.2.3.8a		–	
>SCCPCH Time Slot Format LCR	M		TDD DL DPCH Time Slot Format LCR 9.2.3.8E		–	

Range bound	Explanation
maxnoofSCCPCHs	Maximum number of SCCPCHs for one CCTrCH.

9.2.3.7H   Support of 8PSK

The *Support of 8PSK* IE indicates whether 8PSK is supported or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Support of 8PSK			ENUMERATED(supported)	

9.2.3.7I   TDD ACK NACK Power Offset

The *TDD ACK NACK Power Offset* IE indicates Power offset used in the UL in the HS-SICH between transmissions carrying positive and negative acknowledgements as per [16].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TDD ACK NACK Power Offset			INTEGER (-7..8,…)	Unit: dB Range: -7..+8 dB Step: 1 dB

9.2.3.8   TDD Channelisation Code

The Channelisation Code Number indicates which Channelisation Code is used for a given Physical Channel. In TDD the Channelisation Code is an Orthogonal Variable Spreading Factor code that can have a spreading factor of 1, 2, 4, 8 or 16.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD Channelisation Code			ENUMERATED((1/1), (2/1), (2/2), (4/1), .. (4/4), (8/1), .. (8/8), (16/1), .. (16/16),…)	

9.2.3.8a   TDD Channelisation Code LCR

The Channelisation Code Number indicates which Channelisation Code is used for a given Physical Channel. In 1.28Mcps TDD the Channelisation Code is an Orthogonal Variable Spreading Factor code, that can have a spreading factor of 1, 2, 4, 8 or 16 and there is a choice between QPSK and 8PSK modulation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD Channelisation Code	M		ENUMERATED((1/1), (2/1), (2/2), (4/1),..(4/4), (8/1), .. (8/8), (16/1).. (16/16) ,…)	
Modulation	M		ENUMERATED(QPSK, 8PSK, …)	Modulation options for 1.28Mcps TDD in contrast to 3.84Mcps TDD

9.2.3.8A   TDD DPCH Offset

The Offset represents the phase information for the allocation of a group of dedicated physical channels. The *Offset Type* IE = "No Initial Offset" is used when a starting offset is not required and the TDD Physical channel offset for each DPCH in the CCTrCH shall be directly determined from the TDD DPCH Offset. The *Offset Type* IE = "Initial Offset" is used when a starting offset is required. The TDD DPCH Offset shall map to the CFN and the TDD Physical Channel Offset for each DPCH in this CCTrCH shall calculated by TDD DPCH Offset *mod* Repetition period, see ref. [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Offset Type*				
>*Initial Offset*				
>>TDD DPCH Offset Value	M		INTEGER (0..255)	
>*No Initial Offset*				
>>TDD DPCH Offset Value	M		INTEGER (0..63)	

9.2.3.8B   TDD DCHs To Modify

The *TDD DCHs To Modify* IE provides information for DCHs to be modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
TDD DCHs To Modify		*1..<maxno ofDCHs>*			–	
>UL FP Mode	O		9.2.1.67		–	
>ToAWS	O		9.2.1.58		–	
>ToAWE	O		9.2.1.57		–	
>Transport Bearer Request Indicator	M		9.2.1.61		–	
>DCH Specific Info		*1..<maxno ofDCHs>*			–	
>>DCH ID	M		9.2.1.16		–	
>>CCTrCH ID	O		9.2.3.2	UL CCTrCH in which the DCH is mapped.	–	
>>CCTrCH ID	O		9.2.3.2	DL CCTrCH in which the DCH is mapped	–	
>>Transport Format Set	O		9.2.1.64	For the UL.	–	
>>Transport Format Set	O		9.2.1.64	For the DL.	–	
>>Allocation/Retention Priority	O		9.2.1.1		–	
>>Frame Handling Priority	O		9.2.1.29		–	
>>Guaranteed Rate Information	O		9.2.1.30M		YES	ignore
>>Traffic Class	O		9.2.1.58A		YES	ignore
>TNL QoS	O		9.2.1.56A		YES	ignore

Range bound	Explanation
maxnoofDCHs	Maximum number of DCHs for one UE.

9.2.3.8C   TDD DL Code Information

The *TDD DL Code Information* IE provides TDD DL Code information for all DPCHs of one DL Time Slot.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
TDD DL Code Information		*1..<maxno OfDPCHs>*			–	
>DPCH ID	M		9.2.3.3		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>TDD Channelisation Code	M		9.2.3.8		–	

Range bound	Explanation
maxnoofDPCHs	Maximum number of DPCHs for one CCTrCH.

9.2.3.8D   TDD DL Code Information LCR

The *TDD DL Code Information LCR* IE provides DL Code information for the RL for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
TDD DL Code Information LCR		*1 .. <maxnoOf DPCHLC R>*			–	
>DPCH ID	M		9.2.3.5		–	
>TDD Channelisation Code LCR	M		9.2.3.8a		–	
> TDD DL DPCH Time Slot Format LCR	M		9.2.3.8E		–	

Range bound	Explanation
maxnoOfDPCHLCR	Maximum number of DPCH in one CCTrCH for 1.28Mcps TDD

9.2.3.8E   TDD DL DPCH Time Slot Format LCR

TDD DL DPCH Time Slot Format LCR indicates the time slot formats used in DL DPCH for 1.28Mcps TDD (see ref. [12]).

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CHOICE *Modulation*				
> *QPSK*				
>>QPSK TDD DL DPCH TimeSlot Format LCR	M		INTEGER (0..24,…)	
> *8PSK*				
>>8PSK TDD DL DPCH TimeSlot Format LCR	M		INTEGER (0..24,…)	

9.2.3.9 TDD Physical Channel Offset

The TDD Physical Channel Offset represents the phase information for the allocation of a non DPCH physical channel. (CFN mod Repetition Period = TDD Physical Channel Offset) see ref. [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD Physical Channel Offset			INTEGER (0..63)	

9.2.3.10 TDD TPC Downlink Step Size

This parameter indicates step size for the DL power adjustment (see ref [22]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD TPC Downlink Step Size			ENUMERATED(1, 2, 3,…)	Unit: dB

9.2.3.10a TDD TPC Uplink Step Size

This parameter indicates step size for the UL power adjustment (see ref [22]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD TPC Uplink Step Size			ENUMERATED (1, 2, 3,…)	Unit: dB

9.2.3.10A TDD UL Code Information

The *TDD UL Code Information* IE provides TDD UL Code information for all DPCHs of one UL Time Slot.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
TDD UL Code Information		*1..<maxnoOfDPCHs>*			–	
>DPCH ID	M		9.2.3.3		–	
>TDD Channelisation Code	M		9.2.3.8		–	

Range bound	Explanation
maxnoofDPCHs	Maximum number of DPCHs for one CCTrCH.

9.2.3.10B TDD UL Code Information LCR

The *TDD UL Code Information LCR* IE provides information for UL Code to be established for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
TDD UL Code Information LCR		*1 .. <maxno OfDPCH LCR>*			–	
>DPCH ID	M		9.2.3.5		–	
>TDD Channelisation Code LCR	M		9.2.3.8a		–	
> TDD UL DPCH Time Slot Format LCR	M		9.2.3.10C		–	

Range bound	Explanation
maxnoOfDPCHLCR	Maximum number of DPCH in one CCTrCH for 1.28Mcps TDD.

9.2.3.10C   TDD UL DPCH Time Slot Format LCR

TDD UL DPCH Time Slot Format LCR indicates the time slot formats used in UL DPCH for 1.28Mcps TDD (see ref. [12]).

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CHOICE *Modulation*				
> *QPSK*				
>>QPSK TDD UL DPCH Time Slot Format LCR	M		INTEGER (0..69,…)	
> *8PSK*				
>>8PSK TDD UL DPCH Time Slot Format LCR	M		INTEGER (0..24,…)	

9.2.3.10D 1.28 Mcps TDD uplink physical channel capability

1.28 Mcps TDD uplink physical channel capability IE defines the UE uplink physical channel capability for 1.28 Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Number of timeslots per subframe	M		INTEGER (1..6)	
Maximum number of physical channels per timeslot	M		ENUMERATED (1,2,3,4...)	

9.2.3.11   TFCI Coding

The TFCI Coding describes how the TFCI bits are coded. By default 1 TFCI bit is coded with 4 bits, 2 TFCI bits are coded with 8 bits, 3-5 TFCI bits are coded with 16 bits and 6-10 TFCI bits are coded with 32 bits.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TFCI Coding			ENUMERATED(4, 8, 16, 32,…)	

9.2.3.12   DL Timeslot ISCP

DL Timeslot ISCP is the measured interference in a downlink timeslot at the UE, see ref. [14].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Timeslot ISCP			INTEGER(0..91)	According to mapping in [24].

9.2.3.12a   Time Slot LCR

The Time Slot LCR is the number of the traffic time slot within a 5 ms subframe of LCR TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Time Slot LCR			INTEGER (0..6)	

9.2.3.12A   Timing Advance Applied

Defines the need for Timing Advance functions such as Rx Timing Deviation measurement in a particular cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Timing Advance Applied			ENUMERATED(Yes, No)	

9.2.3.13   Transport Format Management

Defines whether the cell transmits the transport format information via broadcast or whether the transport format information is transmitted to the UE using dedicated RRC procedures

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transport Format Management			ENUMERATED(Cell Based, UE Based,…)	

9.2.3.13A   UL Timeslot ISCP

UL Timeslot ISCP is the measured interference in a uplink timeslot at the DRNS, see ref. [14].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL Timeslot ISCP			INTEGER(0..127)	According to mapping in [24].

9.2.3.13B   UL PhysCH SF Variation

Indicates whether variation of SF in UL is supported by Radio Link or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL PhysCH SF Variation			ENUMERATED(SF_Variation_supported, SF_Variation_NOT_supported)	

9.2.3.13C   UL Timeslot Information

The *UL Timeslot Information* IE provides information on the time slot allocation for a UL DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
UL Timeslot Information		*1..<maxnoOfTS>*			–	
>Time Slot	M		9.2.1.56		–	
>Midamble Shift And Burst Type	M		9.2.3.4		–	
>TFCI Presence	M		9.2.1.55		–	
>UL Code Information	M		TDD UL Code Information 9.2.3.10A		–	

Range bound	Explanation
maxnoofTSs	Maximum number of Timeslots for a UE.

9.2.3.13D   UL Time Slot ISCP Info

The *UL Time Slot ISCP Info* IE gives interference level for each UL time slot within the Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
UL Time Slot ISCP Info		*1 .. <maxnoof ULts>*			–	
>Time Slot	M		9.2.1.56		–	
>UL Timeslot ISCP	M		9.2.3.13A		–	

Range bound	Explanation
maxnoofULts	Maximum number of uplink time slots per Radio Link.

9.2.3.13E   TSTD Indicator

Indicates if TSTD shall be active or not for the DL DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TSTD Indicator			ENUMERATED(active, inactive)	

9.2.3.13F   TSTD Support Indicator

Indicates if UE support TSTD or not for DL DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TSTD Support Indicator			ENUMERATED(TSTD supported, TSTD not supported)	

9.2.3.13Fa   UE Measurement Hysteresis Time

The UE Measurement Hysteresis Time provides the duration during which a reporting criterion has to be fulfilled for the UE Measurement Reporting procedure to be triggered, see [16]..

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UE Measurement Hysteresis Time			INTEGER(0..15)	Unit: dB Range: 0..7.5 dB Step: 0.5 dB

9.2.3.13Fb   UE Measurement Parameter Modification Allowed

Indicates if the SRNC may modify the UE measurement parameters based on its existing measurement schedule.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UE Measurement Parameter Modification Allowed			ENUMERATED (Parameter Modification Allowed, …)	

9.2.3.13Fc   UE Measurement Report Characteristics

The UE Measurement Report Characteristics, defines how the reporting shall be performed. For definition of the event criteria see [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *UE Report Characteristics*				
>Periodic				
>>Amount of Reporting	M		ENUMERATED(1, 2, 4, 8, 16, 32, 64, infinity)	
>>Reporting Interval	M		ENUMERATED (250, 500, 1000, 2000, 3000, 4000, 6000, 8000, 12000, 16000, 20000, 24000, 28000, 32000, 64000)	Indicates the interval of periodical report interval in milliseconds
>Event 1h				
>>UE Measurement Threshold	M		9.2.3.13Fd	The threshold for which the DRNS shall trigger a measurement report.
>>UE Measurement Time to Trigger	M		9.2.3.13Fg	
>>Hysteresis	M		9.2.3.13Fa	
>Event 1i				
>>UE Measurement Threshold	M		9.2.3.13Fd	The threshold for which the DRNS shall trigger a measurement report.
>>UE Measurement Time to Trigger	M		9.2.3.13Fg	
>>Hysteresis	M		9.2.3.13Fa	
>Event 6a				

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
>>UE Measurement Threshold	M		9.2.3.13Fd	
>>UE Measurement Time to Trigger	M		9.2.3.13Fg	
>*Event 6b*				
>>UE Measurement Threshold	M		9.2.3.13Fd	
>>UE Measurement Time to Trigger	M		9.2.3.13Fg	
>*Event 6c*				
>>UE Measurement Time to Trigger	M		9.2.3.13Fg	
>*Event 6d*				
>>UE Measurement Time to Trigger	M		9.2.3.13Fg	

9.2.3.13Fd   UE Measurement Threshold

The Measurement Threshold defines which threshold that shall trigger Event 1h, 1i, 6a or 6b, see [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *UE Measurement Threshold*				
>*Timeslot ISCP*				
>>Timeslot ISCP	M		INTEGER (-115..-25)	In dBm
>*UE Tx Power*				
>>UE Transmitted Power	M		INTEGER(-50..33)	In dBm

9.2.3.13Fe   UE Measurement Timeslot Information HCR

The *UE Measurement Time Slot Information* IE provides information for DL timeslots for the UE to measure, see [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UE Measurement Timeslot Information		*1..<maxnoOfTS>*		
>Time Slot	M		9.2.1.56	
>Burst Type	M		ENUMERATED(Type1, Type 2, Type	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
			3,…)	

Range bound	Explanation
maxnoofTSs	Maximum number of Timeslots for a UE for 3.84Mcps TDD.

9.2.3.13Ff   UE Measurement Timeslot Information LCR

The *UE Measurement Time Slot Information LCR* IE provides information for DL timeslots for the UE to measure, see [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UE Measurement Time Slot Information LCR		*1 .. <maxnoOfTSLCR>*		
>Time Slot LCR	M		9.2.3.12a	

Range bound	Explanation
maxnoOfTSLCR	Maximum number of Timeslots for a UE for 1.28Mcps TDD

9.2.3.13Fg   UE Measurement Time to Trigger

The UE time to trigger indicates the period of time between the timing of event detection and the timing of sending Measurement Report, see [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UE Measurement Time to trigger	M		ENUMERATED(0, 10, 20, 40, 60, 80, 100, 120, 160, 200, 240, 320, 640, 1280, 2560, 5000)	Time in ms.

9.2.3.13Fh   UE Measurement Type

The UE Measurement Type identifies the type of measurement that shall be performed see [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UE Measurement Type	M		ENUMERATED(Primary CCPCH RSCP , DL Timeslot ISCP, UE Transmitted	

			Power,…)	

9.2.3.13Fi UE Measurement Value

The UE Measurement Value shall be the most recent value for this measurement, for which the reporting criteria were met.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *UE Measurement Value*	M			
>*UE Transmitted Power*				
>>**UE Transmitted Power list HCR**		*0..<maxnoOfTS>*		Mandatory for 3.84Mcps TDD, not applicable to 1.28Mcps TDD or 7.68Mcps TDD
>>>Time Slot	M		9.2.1.56	
>>>UE Transmitted Power	M		INTEGER (0..104)	According to mapping in [24] Values 0..20 are not used
>>**UE Transmitted Power list LCR**		*0..< maxnoOfTSLCR>*		Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD or 7.68Mcps TDD
>>>Time Slot LCR	M		9.2.3.12a	
>>>UE Transmitted Power	M		INTEGER (0..104)	According to mapping in [24] Values 0..20 are not used
>>**UE Transmitted Power list 768**		*0..<maxnoOfTS>*		Mandatory for 7.68Mcps TDD, not applicable to 1.28Mcps TDD or 3.84Mcps TDD
>>>Time Slot	M		9.2.1.56	
>>>UE Transmitted Power	M		INTEGER (0..104)	According to mapping in [24] Values 0..20 are not used
>*P-CCPCH RSCP*				
>>Primary CCPCH RSCP	O		9.2.3.5	According to mapping in [24]
>>Primary CCPCH RSCP Delta	O		9.2.3.5a	According to mapping in [24]
>*DL Timeslot ISCP*				
>>**Timeslot list HCR**		*0..<maxnoOfTS>*		Mandatory for 3.84Mcps TDD, not applicable to 1.28Mcps TDD or 7.68Mcps

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
			TDD	
>>>Time Slot	M		9.2.1.56	
>>>Timeslot ISCP	M		9.2.3.12	
>>Timeslot list LCR		*0..<maxnoOfTSLCR>*		Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD or 7.68Mcps TDD
>>>Time Slot LCR	M		9.2.3.12a	
>>>Timeslot ISCP	M		9.2.3.12	
>>Timeslot list 768		*0..<maxnoOfTS>*		Mandatory for 7.68Mcps TDD, not applicable to 1.28Mcps TDD or 3.84Mcps TDD
>>>Time Slot	M		9.2.1.56	
>>>Timeslot ISCP	M		9.2.3.12	

Range bound	Explanation
maxnoOfTS	Maximum number of Timeslots for a UE for 3.84Mcps TDD or 7.68Mcps TDD.
maxnoofTSLCR	Maximum number of Timeslots for a UE for 1.28Mcps TDD.

9.2.3.13Fj   UE Measurement Value Information

The *UE Measurement Value Information* IE provides information both on whether or not the UE Measurement Value is provided in the message and if provided also the UE Measurement Value itself.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Measurement Availability Indicator*	M			
>*Measurement Available*				
>>UE Measurement Value	M		9.2.3.13Fi	
>*Measurement not Available*			NULL	

9.2.3.13G   UL Timeslot Information LCR

The *UL Timeslot Information LCR* IE provides information on the timeslot allocation for an UL DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
UL Timeslot Information LCR		*1 .. <maxnoofULtsLCR>*			–	
>Time Slot LCR	M		9.2.3.12a		–	
>Midamble Shift LCR	M		9.2.3.4C		–	
>TFCI Presence	M		9.2.1.57		–	
>UL Code Information LCR	M		TDD UL Code Information LCR 9.2.3.10B			
>PLCCH Information	O		9.2.3.17		YES	ignore

Range bound	Explanation
maxnoofULtsLCR	Maximum number of Uplink time slots per Radio Link for 1.28Mcps TDD.

9.2.3.13H   UL Time Slot ISCP Info LCR

The *UL Time Slot ISCP Info LCR* IE provides information for UL Interference level for each time slot within the Radio Link for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
UL Time Slot ISCP Info		*1 .. <maxnoofULtsLCR>*			–	
>Time Slot LCR	M		9.2.3.12a		–	
>UL Timeslot ISCP	M		9.2.3.26A		–	

Range bound	Explanation
maxnoofULtsLCR	Maximum number of Uplink time slots per Radio Link for 1.28Mcps TDD

9.2.3.13I   Uplink Synchronisation Frequency

The *UL Synchronisation Frequency* IE specifies the frequency of the adjustment of the uplink transmission timing.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uplink synchronisation frequency			INTEGER (1..8)	Unit: subframe, step: 1

9.2.3.13J Uplink Synchronisation Step Size

The *UL Synchronisation Step Size* IE specifies the step size to be used for the adjustment of the uplink transmission timing.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uplink synchronisation step size			INTEGER (1..8)	Unit: 1/8 chip, step: 1.

9.2.3.13K Uplink Timing Advance Control LCR

The Uplink Timing Advance Control LCR indicates the parameters which are used to support Uplink Synchronisation for the UE in 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SYNC UL codes bitmap	M		BITSTRING (8)	Each bit indicates the availability of a SYNC_UL code.
FPACH info		1		
>Time Slot LCR	M		9.2.3.12a	
>TDD Channelisation Code LCR	M		9.2.3.8a	
>Midamble Shift LCR	M		9.2.3.4C	
>WT	M		INTEGER (1..4)	Maximum number of subframes to wait for transmission of FPACH.
PRXupPCHdes	M		INTEGER (-120 .. –58, ...)	Desired UpPCH receive power. Unit: dBm Step size: 1
SYNC UL procedure parameters		1		
>Maximum Sync UL transmissions	M		ENUMERATED (1,2,4,8,...)	
>Power Ramp Step	M		INTEGER (0..3, ...)	
Mmax	M		INTEGER (1..32)	Maximum number of synchronisation attempts

9.2.3.14 USCH ID

The USCH ID is the identifier of an uplink shared channel. It is unique among the USCHs simultaneously allocated for the same UE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
USCH ID			INTEGER (0..255)	

9.2.3.15 USCH Information

The *USCH Information* IE provides information for USCHs to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
USCH Information		*1 to <maxnoofUSCHs>*			–	
>USCH ID	M		9.2.3.14		–	
>CCTrCH ID	M		9.2.3.2	UL CCTrCH in which the USCH is mapped	–	
>TrCH Source Statistics Descriptor	M		9.2.1.65		–	
>Transport Format Set	M		9.2.1.64	For USCH	–	
>Allocation/Retention Priority	M		9.2.1.1		–	
>Scheduling Priority Indicator	M		9.2.1.51A		–	
>RB Info		*1..<maxnoofRB>*		All Radio Bearers using this USCH	–	
>>RB Identity	M		9.2.3.5B		–	
>Traffic class	M		9.2.1.58A		YES	ignore
>Binding ID	O		9.2.1.3	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>Transport Layer Address	O		9.2.1.62	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>TNL QoS	O		9.2.1.56A		YES	ignore

Range bound	Explanation
maxnoofUSCHs	Maximum number of USCHs for one UE.
maxnoofRBs	Maximum number of Radio Bearers for one UE.

9.2.3.16 Support of PLCCH

The *Support of PLCCH* IE indicates whether PLCCH is supported or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Support of PLCCH			ENUMERATED(supported)	

9.2.3.17 PLCCH Information

The *PLCCH Information* IE carres a PLCCH assignment for a timeslot of an UL DCH-type CCTrCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD Channelisation Code	M		9.2.3.8	Only QPSK modulation is used with PLCCH
Time Slot LCR	M		9.2.3.12a	
Midamble Shift LCR	M		9.2.3.4C	
PLCCH Sequence Number	M		9.2.3.18	

9.2.3.18 PLCCH Sequence Number

This sequence number represents a portion of a PLCCH used to signal TPC / SS bits to a single UE. A value of zero indicates that the PLCCH assignment has been deleted.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PLCCH Sequence Number			INTEGER (0..14)	

9.2.3.19 Minimum Spreading Factor 7.68Mcps

Defines the minimum spreading factor the UE has the capability of receiving or transmitting for 7.68Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Minimum Spreading Factor 768			INTEGER (1..32)	

9.2.3.20 Maximum Number of DL Physical Channels 7.68Mcps

Defines the maximum number of physical channels for 7.68Mcps TDD – per frame that the UE is capable to receive.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Number of DL Physical Channels 768			INTEGER (1..448)	

9.2.3.21 Maximum Number of DL Physical Channels per Timeslot 7.68Mcps

Defines the maximum number of physical channels per timeslot that the UE is capable to receive for 7.68 Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Number of DL Physical Channels per Timeslot 768			INTEGER (1..32)	

9.2.3.22 Secondary CCPCH Info 7.68Mcps TDD

The *Secondary CCPCH Info 7.68Mcps TDD* IE provides information on the Secondary CCPCH that carries the logical channel SHCCH for the UE for 7.68Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
TFCS	M		9.2.1.63	For the DL.	–	
TFCI Coding	M		9.2.3.11		–	
Secondary CCPCH		*0..<maxno ofSCCPC Hs768>*			–	
>Time Slot	M		9.2.1.56		–	
>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.23		–	
>TFCI Presence	M		9.2.1.55		–	
>Secondary CCPCH TDD Code Information 7.68Mcps	M		9.2.3.24		–	
>TDD Physical Channel Offset	M		9.2.3.9		–	
>Repetition Length	M		9.2.3.6		–	
>Repetition Period	M		9.2.3.7		–	
FACH		0..maxnoo fFACHs			–	
>TFS	M		9.2.1.64	For the DL.	–	
PCH		0..1			–	
>TFS	M		9.2.1.64	For the DL.	–	

Range bound	Explanation
maxnoofSCCPCHs768	Maximum number of Secondary CCPCHs per CCTrCH.
maxnoofFACHs	Maximum number of FACHs mapped onto a Secondary CCPCH.

9.2.3.23 Midamble Shift And Burst Type 7.68Mcps

This information element indicates burst type and midamble allocation for 7.68Mcps TDD.

Three different midamble allocation schemes exist:

- Default midamble: the midamble is allocated by layer 1 depending on the associated channelisation code (DL and UL);

- Common midamble: the midamble is allocated by layer 1 depending on the number of channelisation codes (possible in DL only);

- UE specific midamble: a UE specific midamble is explicitly assigned (DL and UL).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Burst Type*				
>*Type 1*				
>> Midamble Configuration Burst Type 1 And 3	M		ENUMERATED(4, 8, 16)	As defined in [12]
>>Midamble Allocation Mode	M		ENUMERATED(Default midamble, Common midamble, UE specific midamble)	
>>Midamble Shift Long	C-UE		INTEGER(0..15)	
>*Type 2*				
>> Midamble Configuration Burst Type 2	M		ENUMERATED (4, 8)	As defined in [12]
>>Midamble Allocation Mode	M		ENUMERATED(Default midamble, Common midamble, UE specific midamble)	
>>Midamble Shift Short	C-UE		INTEGER (0..7)	
>*Type 3*				UL only
>> Midamble Configuration Burst Type 1 And 3	M		ENUMERATED (4, 8, 16)	As defined in [12]
>>Midamble Allocation Mode	M		ENUMERATED(Default midamble, UE	

			specific midamble)	
>>Midamble Shift Long	C-UE		INTEGER(0..15)	

Condition	Explanation
UE	The IE shall be present if the *Midamble Allocation Mode* IE is set to "UE-specific midamble".

9.2.3.24 Secondary CCPCH TDD Code Information 7.68Mcps

The *Secondary CCPCH TDD Code Information 7.68Mcps* IE provides TDD Channelisation Code information for all SCCPCHs of one Time Slot for 7.68Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Secondary CCPCH TDD Code Information 7.68Mcps		*1..<maxnoOfSCCPCHs768>*			–	
>TDD Channelisation Code 7.68Mcps	M		9.2.3.25		–	

Range bound	Explanation
maxnoofSCCPCHs768	Maximum number of SCCPCHs for one CCTrCH.

9.2.3.25 TDD Channelisation Code 7.68Mcps

The Channelisation Code Number indicates which Channelisation Code is used for a given Physical Channel. In 7.68Mcps TDD the Channelisation Code is an Orthogonal Variable Spreading Factor code that can have a spreading factor of 1, 2, 4, 8, 16 or 32.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD Channelisation Code			ENUMERATED((1/1), (2/1), (2/2), (4/1), .. (4/4), (8/1), .. (8/8), (16/1), .. (16/16), (32/1), .. (32,32),…)	

9.2.3.26 UL Timeslot Information 7.68Mcps

The *UL Timeslot Information* IE provides information on the time slot allocation for a UL DPCH for 7.68Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
UL Timeslot Information		*1..<maxnoOfTS>*			–	
>Time Slot	M		9.2.1.56		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.23		–	
>TFCI Presence	M		9.2.1.55		–	
>UL Code Information 7.68Mcps	M		TDD UL Code Information 7.68Mcps 9.2.3.27		–	

Range bound	Explanation
maxnoofTSs	Maximum number of Timeslots for a UE.

9.2.3.27　TDD UL Code Information 7.68Mcps

The *TDD UL Code Information 7.68Mcps* IE provides TDD UL Code information for all DPCHs of one UL Time Slot for 7.68Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
TDD UL Code Information		*1..<maxnoOfDPCHs 768>*			–	
>DPCH ID	M		9.2.3.3		–	
>TDD Channelisation Code 7.68Mcps	M		9.2.3.25		–	

Range bound	Explanation
maxnoofDPCHs768	Maximum number of DPCHs for one CCTrCH.

9.2.3.28　DL Timeslot Information 7.68Mcps

The *DL Timeslot Information 7.68Mcps* IE provides information on the time slot allocation for a DL DPCH for 7.68Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DL Timeslot Information		*1..<maxnoOfTS>*			–	
>Time Slot	M		9.2.1.56		–	
>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.23		–	
>TFCI Presence	M		9.2.1.55		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>DL Code Information 7.68Mcps	M		TDD DL Code Information 7.68Mcps 9.2.3.29		–	

Range bound	Explanation
maxnoofTSs	Maximum number of Timeslots for a UE.

9.2.3.29 TDD DL Code Information 7.68Mcps

The *TDD DL Code Information* IE provides TDD DL Code information for all DPCHs of one DL Time Slot for 7.68Mpcs TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
TDD DL Code Information		*1..<maxnoOfDPCHs 768>*			–	
>DPCH ID	M		9.2.3.3		–	
>TDD Channelisation Code 7.68Mcps	M		9.2.3.25		–	

Range bound	Explanation
maxnoofDPCHs768	Maximum number of DPCHs for one CCTrCH.

9.2.3.30 Rx Timing Deviation 7.68Mcps

Measured Rx Timing Deviation as a basis for timing advance, either measured directly from a RACH burst, or calculated from the Rx Timing Deviation measurement on the USCH by adding the current Timing Advance value..

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Rx Timing Deviation			INTEGER (0..1023)	As specified in [5]

9.2.3.31 Cell Capability Container 7.68 Mcps TDD

The Cell Capability Container 7.68 McpsTDD indicates which functionalities a cell supports.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Capability Container TDD			BIT STRING (32)	Each bit indicates whether a cell supports a particular functionality or not. The

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
				value 1 of a bit indicates that the corresponding functionality is supported in a cell and value 0 indicates that the corresponding functionality is not supported in a cell. Each bit is defined as follows. The first bit: Delayed Activation Support Indicator. The second bit: HS-DSCH Support Indicator. The third bit: DSCH Support Indicator. The fourth bit: Flexible MAC-d PDU Size Support Indicator. Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.

9.2.3.32 Neighbouring TDD Cell Measurement Information 7.68Mcps

This IE provides information on the 7.68Mcps TDD neighbouring cells used for the purpose of Measurements. Since the measurement can be performed on every time slot and midamble shift, the *Time slot* IE and *Midamble shift and burst type* IE shall be included if available.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UTRAN Cell Identifier	M		9.2.1.71	
UARFCN	M		9.2.1.66	Corresponds to Nt [15]
Cell Parameter ID	M		9.2.1.8	
Time slot	O		9.2.1.56	
Midamble Shift And Burst Type 7.68Mcps	O		9.2.3.23	

9.2.3.33 UE Measurement Timeslot Information 7.68Mcps

The *UE Measurement Time Slot Information* IE provides information for DL timeslots for the UE to measure, see [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UE Measurement Timeslot Information		*1..<maxnoOfTS>*		
>Time Slot	M		9.2.1.56	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
>Burst Type	M		ENUMERATED(Type1, Type 2, Type 3,…)	

Range bound	Explanation
maxnoofTSs	Maximum number of Timeslots for a UE for 7.68Mcps TDD.

9.2.3.34   DPCH ID 7.68Mcps

The *DPCH ID 7.68Mcps* identifies unambiguously a DPCH inside a downlink Radio Link for 7.68Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DPCH ID			INTEGER (0..479)	

9.2.3.35   Rx Timing Deviation 3.84Mcps Extended

Measured Rx Timing Deviation as a basis for timing advance, either measured directly from a RACH burst, or calculated from the Rx Timing Deviation measurement on the USCH by adding the current Timing Advance value. This is used when the extended timing advance is in use at 3.84 Mcps.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Rx Timing Deviation			INTEGER (0..511)	As specified in [5]

9.2.3.36   E-PUCH Information

The *E-PUCH Information* IE provides parameters to configure the E-PUCH physical channel for 3.84Mcps TDD and 7.68 Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Minimum code rate	M		INTEGER (0..63)	Unit: - Range: 0.055 ..1 Step: 0.015
Maximum code rate	M		INTEGER (0..63)	Unit: - Range: 0.055 ..1 Step: 0.015
HARQ Info for E-DCH	M		ENUMERATED (rv0, rvtable)	"rv0" indicates that the UE will only use E_DCH RV index 0. "rvtable" indicates that the UE will use an RSN based RV index as specified in [8]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
N_{E-UCCH}	M		INTEGER (1..12)	Number of slots that are required to carry TPC and TFCI (consecutively allocated slots beginning with the first).

9.2.3.36a E-PUCH Information LCR

The *E-PUCH Information LCR* IE provides parameters to configure the E-PUCH physical channel for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Minimum code rate	M		INTEGER (0..63)	Unit: - Range: 0.055 ..1 Step: 0.015	−	
Maximum code rate	M		INTEGER (0..63)	Unit: - Range: 0.055..1 Step: 0.015	−	
HARQ Info for E-DCH	M		ENUMERATED (rv0, rvtable)	"rv0" indicates that the UE will only use E_DCH RV index 0. "rvtable" indicates that the UE will use an RSN based RV index as specified in [8]	−	
PRXdes_base	M		INTEGER (-112..-50)	dBm. Reference Desired RX power level for E-PUCH	−	
E-PUCH TPC Step Size	M		9.2.3.10a		−	
N_{E-UCCH}	M		INTEGER (1..8)	Number of E-UCCH and TPC instances within an E-DCH TTI. Details are described in	−	

				[12].		
E-PUCH Power Control GAP	O		INTEGER (1..255)	Unit: Number of subframes. Reference to E-PUCH Power Control for 1.28Mcps TDD in [22]. If it is not present, UE shall deem it to be infinite in which case closed loop power control shall always be used.	YES	ignore

9.2.3.37 E-TFCS Information TDD

Whereas the related E-DCH Transport Block sizes are standardised in [32] this IE gives details on the Reference Betas.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Reference Beta Information QPSK		*1..<maxnoofRefbetas>*		
>Reference Code Rate	M		INTEGER (0..10)	Unit: - Range: 0..1 Step: 0.1
>Reference Beta	M		INTEGER(-15..16)	Unit: - Range: -15..+16 Step: 1 dB
Reference Beta Information 16QAM		1..<maxnoofRefbetas>		
>Reference Code Rate	M		INTEGER (0..10)	Unit: - Range: 0..1 Step: 0.1
>Reference Beta	M		INTEGER(-15..16)	Unit: - Range: -15..+16 Step: 1 dB

Range Bound	Explanation
maxnoofRefbetas	Maximum number of signalled reference betas

9.2.3.38 E-DCH MAC-d Flows Information TDD

The *E-DCH MAC-d Flows Information TDD* IE is used for the establishment of E-DCH MAC-d flows for TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-DCH MAC-d Flow Specific Information		*1..<maxnoofEDCHMACdFlows>*			–	
>E-DCH MAC-d Flow ID	M		9.2.1.91		–	
>Allocation/Retention Priority	M		9.2.1.1		–	
>TNL QoS	O		9.2.1.56A		–	
>Binding ID	O		9.2.1.3	Shall be ignored if bearer establishment with ALCAP.	–	
>Transport Layer Address	O		9.2.1.62	Shall be ignored if bearer establishment with ALCAP.	–	
>Payload CRC Presence Indicator	M		9.2.1.42		–	
>Maximum Number Of Retransmissions For E-DCH	M		9.2.1.100		–	
>E-DCH HARQ Power Offset TDD	M		9.2.3.49		–	
>E-DCH MAC-d Flow Multiplexing List	O		9.2.1.89		–	
>E-DCH Grant Type	M		9.2.3.43		–	
>E-DCH Logical Channel Information	M		9.2.1.92		–	
>E-DCH MAC-d Flow Retransmission	O		9.2.3.49a	Mandatory for LCR TDD.	YES	YES

Timer				Not applicable for 3.84Mcps TDD and 7.68Mcps TDD.		
>Traffic Class	M		9.2.1.58A		YES	ignore

Range Bound	Explanation
maxnoofEDCHMACdFlows	Maximum number of E-DCH MAC-d flows

9.2.3.39 E-DCH Non-scheduled Grant Information TDD

The *E-DCH Non-scheduled Grant Information TDD* IE is used to specify the details of an non-scheduled grant for 3.84Mcps and 7.68Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Timeslot Resource Related Information	M		9.2.3.44	
Power Resource Related Information	M		9.2.3.45	
Repetition Period	M		9.2.3.6	
Repetition Length	M		9.2.3.7	
TDD E-PUCH Offset	M		9.2.3.46	
TDD Channelisation Code	M		9.2.3.8	

9.2.3.39a E-DCH Non-scheduled Grant Information LCR TDD

The *E-DCH Non-scheduled Grant Information LCR TDD* IE is used to specify the details of an non-scheduled grant for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Timeslot Resource Related Information LCR	M		9.2.3.44a	
Power Resource Related Information	M		9.2.3.45	
Repetition Period	M		9.2.3.6	
Repetition Length	M		9.2.3.7	
Subframe Number	M		ENUMERATED (0,1)	Used to indicate from which subframe of the Radio Frame indicated by *TDD E-PUCH Offset* IE the physical resources are assigned to the E-DCH Non-scheduled Grant.

TDD E-PUCH Offset	M		9.2.3.46	
TDD Channelisation Code	M		9.2.3.8	

9.2.3.40　E-DCH TDD Information

The *E-DCH TDD Information* specifies the details of the maximum bit rate and processing overload level.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH TDD Maximum Bitrate	O		9.2.3.47	
E-DCH Processing Overload Level	O		9.2.1.95	
E-DCH Power Offset for Scheduling Info	O		9.2.1.96	

9.2.3.40a　E-DCH TDD Information LCR

The *E-DCH TDD Information LCR* IE specifies the details of UE physical layer category, NodeB processing overload level and power offset, Maximum Number of Retransmission and E-DCH Retransmission timer for scheduling info.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-DCH Physical Layer Category LCR	O		9.2.3.54	If the *Extended E-DCH Physical Layer Category LCR* IE is included in the *E-DCH TDD Information LCR* IE, the *E-DCH Physical Layer Category LCR* IE shall be ignored.	–	
E-DCH Processing Overload Level	O		9.2.1.95		–	
E-DCH Power Offset for Scheduling Info	O		9.2.1.96		–	
Extended E-DCH Physical Layer Category LCR	O		9.2.3.54A	The *Extended E-DCH Physical Layer Category LCR* IE shall be used if the E-DCH Physical Layer Category has a value larger than 5.	YES	reject
Maximum Number of Retransmission for Scheduling Info LCR	O		9.2.1.100		YES	ignore

E-DCH Retransmission timer for Scheduling Info LCR	O		9.2.3.49a		YES	ignore

9.2.3.41 E-DCH TDD Information Response

The *E-DCH TDD Information Response* IE provides information for E-DCH MAC-d flows that have been established or modified. It also provides additional E-DCH information determined within the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH MAC-d Flow Specific Information Response		*0..<maxnoofEDCHMACdFlows>*		
>E-DCH MAC-d Flow ID	M		9.2.1.91	
>Binding ID	O		9.2.1.3	
>Transport Layer Address	O		9.2.1.62	
E-AGCH Specific Information Response		*0..<maxNoOfEAGCHcodes>*		
>Time Slot	M		9.2.1.56	
>Midamble Shift And Burst Type	M		9.2.3.4	
>TDD Channelisation Code	M		9.2.3.8	
E-HICH Information Response		*0..1*		
>Time Slot	M		9.2.1.56	
>Midamble Shift And Burst Type	M		9.2.3.4	
>TDD Channelisation Code	M		9.2.3.8	
>E-HICH Time Offset	M		9.2.3.48	
E-DCH Non-scheduled Grant Information TDD	O		9.2.3.39	
E-RNTI	O		9.2.1.94	

Range bound	Explanation
maxnoofEDCHMACdFlows	Maximum number of MAC-d flows
maxnoofEAGCHcodes	Maximum number of E-AGCHs assigned to one UE

9.2.3.41a   E-DCH TDD Information Response 1.28Mcps

Only for 1.28Mcps TDD. The *E-DCH TDD Information Response 1.28Mcps* IE provides information for E-DCH MAC-d flows that have been established or modified. It also provides additional E-DCH information determined within the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH MAC-d Flow Specific Information Response		*0..<maxnoofEDC HMACdFlows>*		
>E-DCH MAC-d Flow ID	M		9.2.1.91	
>Binding ID	O		9.2.1.3	
>Transport Layer Address	O		9.2.1.62	
E-AGCH Specific Information Response		*0..<maxNoOfEA GCHcodes>*		
>Time Slot LCR	M		9.2.3.12a	
>Midamble Shift LCR	M		9.2.3.4C	
>TDD Channelisation Code	M		9.2.3.8	
E-HICH Scheduled specific Information Response		*0..1*		
>Scheduled		*0..< maxNoOfEHICHc odes>*		
>>EI	M		INTEGER (0..3)	E-HICH indication which is used to indicate UE on which E-HICH the feedback info is carried.
>>Time Slot LCR	M		9.2.3.12a	
>>Midamble Shift LCR	M		9.2.3.4C	
>>TDD Channelisation Code	M		9.2.3.8	
>Non-Scheduled		*0..1*		
>>Time Slot LCR	M		9.2.3.12a	
>>Midamble Shift LCR	M		9.2.3.4C	
>>TDD Channelisation Code	M		9.2.3.8	
>>Signature Sequence Group Index	M		INTEGER (0..19)	

>E-HICH time offset LCR	M		9.2.3.48a		
E-DCH Non-scheduled Grant Information LCR TDD	O		9.2.3.39a		
E-RNTI	O		9.2.1.94		

Range bound	Explanation
maxnoofEDCHMACdFlows	Maximum number of MAC-d flows
maxnoofEAGCHcodes	Maximum number of E-AGCHs assigned to one UE
maxnoofEHICHcodes	Maximum number of E-HICHs assigned to one UE

9.2.3.42 E-DCH TDD Information to Modify

The *E-DCH MAC-d Flows Information TDD* IE is used for the establishment of E-DCH MAC-d flows for TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-DCH MAC-d Flow Specific Information		*1..<maxnoofEDCHMACdFlows>*			−	
>E-DCH MAC-d Flow ID	M		9.2.1.91		−	
>Allocation/Retention Priority	O		9.2.1.1		−	
>Transport Bearer Request Indicator	M		9.2.1.61		−	
>Binding ID	O		9.2.1.3	Shall be ignored if bearer establishment with ALCAP.	−	
>Transport Layer Address	O		9.2.1.62	Shall be ignored if bearer establishment with ALCAP.	−	
>TNL QoS	O		9.2.1.56A		−	
>Maximum Number Of Retransmissions For E-DCH	O		9.2.1.100		−	
>E-DCH HARQ Power Offset TDD	O		9.2.3.49		−	
>E-DCH MAC-d Flow Multiplexing List	O		9.2.1.89		−	
>E-DCH Grant Type	O		9.2.3.43		−	

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>E-DCH Logical Channel To Add	O		E-DCH Logical Channel Information 9.2.1.92		−	
>E-DCH Logical Channel To Modify	O		9.2.1.93		−	
>E-DCH Logical Channel To Delete		0..< maxnooflo gicalchann els>			−	
>>Logical Channel ID	M		9.2.1.97		−	
>E-DCH MAC-d Flow Retransmission Timer	O		9.2.3.49a	Applicable for 1.28Mcps TDD only	YES	ignore
>Traffic Class	O		9.2.1.58A		YES	ignore
MAC-e Reset Indicator	O		9.2.1.99		−	

Range Bound	Explanation
maxnoofEDCHMACdFlows	Maximum number of E-DCH MAC-d flows
maxnooflogicalchannels	Maximum number of logical channels

9.2.3.43   E-DCH Grant Type

The *E-DCH Grant Type* identifies whether a MAC-d flow is scheduled or non-scheduled.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH Grant Type			ENUMERATE D (Scheduled, Non-scheduled)	

9.2.3.44   Timeslot Resource Related Information

The *Timeslot Resource Related Information* is a bitmap indicating which of the timeslots configured for E-DCH are allocated for non-scheduled transmissions.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Timeslot Resource Related Information			BIT STRING (13)	

9.2.3.44a   Timeslot Resource Related Information LCR

The *Timeslot Resource Related Information LCR* IE is a bitmap indicating which of the timeslots configured for E-DCH are allocated for non-scheduled transmissions.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Timeslot Resource Related Information LCR			BIT STRING (5)	

9.2.3.45   Power Resource Related Information

The *Power Resource Related Information* specifies the maximum allowed E-PUCH power resource (dB relative to $P_{e\text{-}base}$) that the UE may use for non-scheduled transmissions.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Power Resource Related Information			INTEGER (1..32)	

9.2.3.46   E-PUCH Offset

The *E-PUCH Offset* represents the CFN offset at which an non-scheduled E-DCH grant begins.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-PUCH Offset			INTEGER (0..255)	

9.2.3.47   E-DCH TDD Maximum Bitrate

The *E-DCH TDD Maximum Bitrate* parameter indicates the Maximum Bitrate for an E-DCH in TDD mode.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH TDD Maximum Bitrate			INTEGER (0..9201,…)	Bitrate on transport block level. Unit is kbits per second.

9.2.3.48   E-HICH Time Offset

The E-HICH Time Offset (aka $n_{E\text{-}HICH}$ [19])is determined by the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-HICH Time Offset			INTEGER (4..44)	

9.2.3.48a   E-HICH Time Offset LCR

The *E-HICH Time Offset LCR* IE(aka $n_{E\text{-}HICH}$ [19])is determined by the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-HICH Time Offset LCR			INTEGER	

			(4..15)	

9.2.3.49 E-DCH HARQ Power Offset TDD

The *E-DCH HARQ Power Offset TDD* is the power offset measured in dB.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH HARQ Power Offset TDD			INTEGER (0..6)	

9.2.3.49a E-DCH MAC-d Flow Retransmission Timer

The *E-DCH MAC-d Flow Retransmission Timer* IE is used in the E-DCH retransmission control as defined in ref. [32].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH MAC-d Flow Retransmission Timer			ENUMERATED (10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 110, 120, 140, 160, 200, 240, 280, 320, 400, 480, 560,…)	Unit: ms Node B may use this value to stop the re-transmission of the corresponding MAC-e PDU.

9.2.3.50 E-DCH Non-scheduled Grant Information 7.68Mcps TDD

The *E-DCH Non-scheduled Grant Information 7.68Mcps TDD* IE is used to specify the details of an non-scheduled grant for TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Timeslot Resource Related Information	M		9.2.3.44	
Power Resource Related Information	M		9.2.3.45	
Repetition Period	M		9.2.3.6	
Repetition Length	M		9.2.3.7	
TDD E-PUCH Offset	M		9.2.3.46	
TDD Channelisation Code 7.68Mcps	M		9.2.3.25	

9.2.3.51 E-DCH TDD Information 7.68Mcps

The *E-DCH TDD Information 7.68Mcps* specifies the details of the maximum bit rate and processing overload level for 7.68Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH TDD Maximum Bitrate 7.68Mcps	O		9.2.3.53	
E-DCH Processing Overload Level	O		9.2.1.95	
E-DCH Power Offset for Scheduling Info	O		9.2.1.96	

9.2.3.52 E-DCH TDD Information Response 7.68Mcps

The *E-DCH TDD Information Response 7.68Mcps* IE provides information for E-DCH MAC-d flows that have been established or modified for 7.68Mcps TDD. It also provides additional E-DCH information determined within the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH MAC-d Flow Specific Information Response		*0..<maxnoofEDCHMACdFlows>*		
>E-DCH MAC-d Flow ID	M		9.2.1.91	
>Binding ID	O		9.2.1.3	
>Transport Layer Address	O		9.2.1.62	
E-AGCH Specific Information Response 7.68Mcps		*0..<maxNoOfEAGCHcodes>*		
>Time Slot	M		9.2.1.56	
>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.23	
>TDD Channelisation Code 7.68Mcps	M		9.2.3.25	
E-HICH Information Response 7.68Mcps		*0..1*		
>Time Slot	M		9.2.1.56	
>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.23	
>TDD Channelisation Code 7.68Mcps	M		9.2.3.25	
>E-HICH Time Offset	M		9.2.3.48	
E-DCH Non-scheduled Grant Information 7.68Mcps TDD	O		9.2.3.50	
E-RNTI	O		9.2.1.94	

Range Bound	Explanation
maxnoofEDCHMACdFlows	Maximum number of E-DCH MAC-d flows
maxnoofEAGCHcodes	Maximum number of E-AGCHs assigned to one UE

9.2.3.53 E-DCH TDD Maximum Bitrate 7.68Mcps

The *E-DCH TDD Maximum Bitrate 7.68Mcps* parameter indicates the Maximum Bitrate for an E-DCH in 7.68Mcps TDD mode.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH TDD Maximum Bitrate 7.68Mcps			INTEGER (0..17713,…)	Bitrate on transport block level. Unit is kbits per second.

9.2.3.54 E-DCH Physical Layer Category LCR

Only for 1.28Mcps TDD. The *E-DCH Physical Layer Category LCR* IE parameter indicates the E-DCH physical layer capability of UE in LCR TDD mode.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH Physical Layer Category LCR			INTEGER (1..5)	As defined in [42]

9.2.3.54A Extended E-DCH Physical layer Category LCR

Only for 1.28Mcps TDD. The *Extended E-DCH Physical Layer Category LCR* IE parameter indicates the E-DCH physical layer capability of UE in LCR TDD mode.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Extended E-DCH Physical Layer Category LCR			INTEGER(6,...)	As defined in [42]

9.2.3.55 UpPCH Information LCR

Only for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
UpPCH Information LCR		*1..<maxFrequencyinCell>*			EACH	ignore
>UARFCN	O		9.2.1.66		−	
>UpPCH Position LCR	O		9.2.3.56		−	

Range Bound	Explanation
maxFrequencyinCell	Maximum number of Frequency that can be defined in a Cell

9.2.3.56 UpPCH Position LCR

Only for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UpPCH Position LCR			INTEGER (1..127)	

9.2.3.57 MAC-es Maximum Bit Rate LCR

The *MAC-es Maximum Bit Rate LCR* IE indicates the maximum number of bits per second to be delivered over the air interface.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MAC-es Maximum Bit Rate LCR			INTEGER (0..256,000,000 ,…)	Unit: bit/s

9.3 Message and Information Element Abstract Syntax (with ASN.1)

9.3.0 General

Subclause 9.3 presents the Abstract Syntax of RNSAP protocol with ASN.1. In case there is contradiction between the ASN.1 definition in this subclause and the tabular format in subclause 9.1 and 9.2, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional elements, in which the tabular format shall take precedence.

The ASN.1 definition specifies the structure and content of RNSAP messages. RNSAP messages can contain any IEs specified in the object set definitions for that message without the order or number of occurrence being restricted by ASN.1. However, for this version of the standard, a sending entity shall construct a RNSAP message according to the PDU definitions module and with the following additional rules (Note that in the following IE means an IE in the object set with an explicit id. If one IE needed to appear more than once in one object set, then the different occurrences have different IE ids):

- IEs shall be ordered (in an IE container) in the order they appear in object set definitions.

- Object set definitions specify how many times IEs may appear. An IE shall appear exactly once if the presence field in an object has value "mandatory". An IE may appear at most once if the presence field in an object has value "optional" or "conditional". If in a tabular format there is multiplicity specified for an IE (i.e. an IE list) then in the corresponding ASN.1 definition the list definition is separated into two parts. The first part defines an IE container list in which the list elements reside. The second part defines list elements. The IE container list appears as an IE of its own. For this version of the standard an IE container list may contain only one kind of list elements.

If a RNSAP message that is not constructed as defined above is received, this shall be considered as Abstract Syntax Error, and the message shall be handled as defined for Abstract Syntax Error in subclause 10.3.6.

9.3.1 Usage of Private Message Mechanism for Non-standard Use

The private message mechanism for non-standard use may be used:

- for special operator (and/or vendor) specific features considered not to be part of the basic functionality, i.e. the functionality required for a complete and high-quality specification in order to guarantee multivendor inter-operability.

- by vendors for research purposes, e.g. to implement and evaluate new algorithms/features before such features are proposed for standardisation.

The private message mechanism shall not be used for basic functionality. Such functionality shall be standardised.

9.3.2 Elementary Procedure Definitions

```
-- *************************************************************
--
-- Elementary Procedure definitions
--
-- *************************************************************

RNSAP-PDU-Descriptions {
```

```
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-PDU-Descriptions (0) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- **************************************************************
--
-- IE parameter types from other modules.
--
-- **************************************************************

IMPORTS
    Criticality,
    ProcedureID,
    TransactionID
FROM RNSAP-CommonDataTypes

    CommonMeasurementFailureIndication,
    CommonMeasurementInitiationFailure,
    CommonMeasurementInitiationRequest,
    CommonMeasurementInitiationResponse,
    CommonMeasurementReport,
    CommonMeasurementTerminationRequest,
    CommonTransportChannelResourcesFailure,
    CommonTransportChannelResourcesRequest,
    CommonTransportChannelResourcesReleaseRequest,
    CommonTransportChannelResourcesResponseFDD,
    CommonTransportChannelResourcesResponseTDD,
    CompressedModeCommand,
    DedicatedMeasurementFailureIndication,
    DedicatedMeasurementInitiationFailure,
    DedicatedMeasurementInitiationRequest,
    DedicatedMeasurementInitiationResponse,
    DedicatedMeasurementReport,
    DedicatedMeasurementTerminationRequest,
    DirectInformationTransfer,
    DL-PowerControlRequest,
    DL-PowerTimeslotControlRequest,
    DownlinkSignallingTransferRequest,
    ErrorIndication,
    InformationExchangeFailureIndication,
    InformationExchangeInitiationFailure,
    InformationExchangeInitiationRequest,
    InformationExchangeInitiationResponse,
    InformationExchangeTerminationRequest,
    InformationReport,
    IurDeactivateTrace,
    IurInvokeTrace,
    MBMSAttachCommand,
    MBMSDetachCommand,
    PagingRequest,
    PhysicalChannelReconfigurationCommand,
```

```
        PhysicalChannelReconfigurationFailure,
        PhysicalChannelReconfigurationRequestFDD,
        PhysicalChannelReconfigurationRequestTDD,
        PrivateMessage,
        RadioLinkActivationCommandFDD,
        RadioLinkActivationCommandTDD,
        RadioLinkAdditionFailureFDD,
        RadioLinkAdditionFailureTDD,
        RadioLinkAdditionRequestFDD,
        RadioLinkAdditionRequestTDD,
        RadioLinkAdditionResponseFDD,
        RadioLinkAdditionResponseTDD,
        RadioLinkCongestionIndication,
        RadioLinkDeletionRequest,
        RadioLinkDeletionResponse,
        RadioLinkFailureIndication,
        RadioLinkParameterUpdateIndicationFDD,
        RadioLinkParameterUpdateIndicationTDD,
        RadioLinkPreemptionRequiredIndication,
        RadioLinkReconfigurationCancel,
        RadioLinkReconfigurationCommit,
        RadioLinkReconfigurationFailure,
        RadioLinkReconfigurationPrepareFDD,
        RadioLinkReconfigurationPrepareTDD,
        RadioLinkReconfigurationReadyFDD,
        RadioLinkReconfigurationReadyTDD,
        RadioLinkReconfigurationRequestFDD,
        RadioLinkReconfigurationRequestTDD,
        RadioLinkReconfigurationResponseFDD,
        RadioLinkReconfigurationResponseTDD,
        RadioLinkRestoreIndication,
        RadioLinkSetupFailureFDD,
        RadioLinkSetupFailureTDD,
        RadioLinkSetupRequestFDD,
        RadioLinkSetupRequestTDD,
        RadioLinkSetupResponseFDD,
        RadioLinkSetupResponseTDD,
        RelocationCommit,
        ResetRequest,
        ResetResponse,
        UEMeasurementFailureIndication,
        UEMeasurementInitiationFailure,
        UEMeasurementInitiationRequest,
        UEMeasurementInitiationResponse,
        UEMeasurementReport,
        UEMeasurementTerminationRequest,
        UplinkSignallingTransferIndicationFDD,
        UplinkSignallingTransferIndicationTDD,
        GERANUplinkSignallingTransferIndication
FROM RNSAP-PDU-Contents

        id-commonMeasurementFailure,
        id-commonMeasurementInitiation,
        id-commonMeasurementReporting,
```

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```
     id-commonMeasurementTermination,
     id-commonTransportChannelResourcesInitialisation,
     id-commonTransportChannelResourcesRelease,
     id-compressedModeCommand,
     id-downlinkPowerControl,
     id-downlinkSignallingTransfer,
     id-downlinkPowerTimeslotControl,
     id-errorIndication,
     id-informationExchangeFailure,
     id-informationExchangeInitiation,
     id-informationReporting,
     id-informationExchangeTermination,
     id-iurDeactivateTrace,
     id-iurInvokeTrace,
     id-dedicatedMeasurementFailure,
     id-dedicatedMeasurementInitiation,
     id-dedicatedMeasurementReporting,
     id-dedicatedMeasurementTermination,
     id-directInformationTransfer,
     id-mBMSAttach,
     id-mBMSDetach,
     id-paging,
     id-physicalChannelReconfiguration,
     id-privateMessage,
     id-radioLinkActivation,
     id-radioLinkAddition,
     id-radioLinkCongestion,
     id-radioLinkDeletion,
     id-radioLinkFailure,
     id-radioLinkParameterUpdate,
     id-radioLinkPreemption,
     id-radioLinkRestoration,
     id-radioLinkSetup,
     id-relocationCommit,
     id-reset,
     id-synchronisedRadioLinkReconfigurationCancellation,
     id-synchronisedRadioLinkReconfigurationCommit,
     id-synchronisedRadioLinkReconfigurationPreparation,
     id-uEMeasurementFailure,
     id-uEMeasurementInitiation,
     id-uEMeasurementReporting,
     id-uEMeasurementTermination,
id-unSynchronisedRadioLinkReconfiguration,
     id-uplinkSignallingTransfer,
     id-gERANuplinkSignallingTransfer
FROM RNSAP-Constants;

-- ************************************************************
--
-- Interface Elementary Procedure Class
--
-- ************************************************************

RNSAP-ELEMENTARY-PROCEDURE ::= CLASS {
```

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```
    &InitiatingMessage                     ,
    &SuccessfulOutcome             OPTIONAL,
    &UnsuccessfulOutcome                   OPTIONAL,
    &Outcome                 OPTIONAL,
    &procedureID           ProcedureID     UNIQUE,
    &criticality           Criticality     DEFAULT ignore
}
WITH SYNTAX {
    INITIATING MESSAGE     &InitiatingMessage
    [SUCCESSFUL OUTCOME      &SuccessfulOutcome]
    [UNSUCCESSFUL OUTCOME        &UnsuccessfulOutcome]
    [OUTCOME           &Outcome]
    PROCEDURE ID             &procedureID
    [CRITICALITY          &criticality]
}

-- *************************************************************
--
-- Interface PDU Definition
--
-- *************************************************************

RNSAP-PDU ::= CHOICE {
    initiatingMessage   InitiatingMessage,
    successfulOutcome   SuccessfulOutcome,
    unsuccessfulOutcome UnsuccessfulOutcome,
    outcome          Outcome,
    ...
}

InitiatingMessage ::= SEQUENCE {
    procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID      ({RNSAP-ELEMENTARY-PROCEDURES}),
    criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality      ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID   TransactionID,
    value       RNSAP-ELEMENTARY-PROCEDURE.&InitiatingMessage   ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
}

SuccessfulOutcome ::= SEQUENCE {
    procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID      ({RNSAP-ELEMENTARY-PROCEDURES}),
    criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality      ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID   TransactionID,
    value       RNSAP-ELEMENTARY-PROCEDURE.&SuccessfulOutcome   ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
}

UnsuccessfulOutcome ::= SEQUENCE {
    procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID      ({RNSAP-ELEMENTARY-PROCEDURES}),
    criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality      ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID   TransactionID,
    value       RNSAP-ELEMENTARY-PROCEDURE.&UnsuccessfulOutcome ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
}

Outcome ::= SEQUENCE {
    procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID      ({RNSAP-ELEMENTARY-PROCEDURES}),
    criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality      ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
```

```
    transactionID    TransactionID,
    value            RNSAP-ELEMENTARY-PROCEDURE.&Outcome      ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
}

-- **************************************************************
--
-- Interface Elementary Procedure List
--
-- **************************************************************

RNSAP-ELEMENTARY-PROCEDURES RNSAP-ELEMENTARY-PROCEDURE ::= {
    RNSAP-ELEMENTARY-PROCEDURES-CLASS-1         |
    RNSAP-ELEMENTARY-PROCEDURES-CLASS-2         |
    RNSAP-ELEMENTARY-PROCEDURES-CLASS-3         ,
    ...
}

RNSAP-ELEMENTARY-PROCEDURES-CLASS-1 RNSAP-ELEMENTARY-PROCEDURE ::= {
    radioLinkSetupFDD                                       |
    radioLinkSetupTDD                                       |
    radioLinkAdditionFDD                                    |
    radioLinkAdditionTDD                                    |
    radioLinkDeletion                                       |
    synchronisedRadioLinkReconfigurationPreparationFDD      |
    synchronisedRadioLinkReconfigurationPreparationTDD      |
    unSynchronisedRadioLinkReconfigurationFDD               |
    unSynchronisedRadioLinkReconfigurationTDD               |
    physicalChannelReconfigurationFDD                       |
    physicalChannelReconfigurationTDD                       |
    dedicatedMeasurementInitiation                          |
    commonTransportChannelResourcesInitialisationFDD        |
    commonTransportChannelResourcesInitialisationTDD        ,
    ...,
    commonMeasurementInitiation                             |
    informationExchangeInitiation                           |
    reset                                                   |
    uEMeasurementInitiation
}

RNSAP-ELEMENTARY-PROCEDURES-CLASS-2 RNSAP-ELEMENTARY-PROCEDURE ::= {
    uplinkSignallingTransferFDD                            |
    uplinkSignallingTransferTDD                            |
    downlinkSignallingTransfer                            |
    relocationCommit                                      |
    paging                                                |
    synchronisedRadioLinkReconfigurationCommit            |
    synchronisedRadioLinkReconfigurationCancellation      |
    radioLinkFailure                                      |
    radioLinkPreemption                                   |
    radioLinkRestoration                                  |
    dedicatedMeasurementReporting                         |
    dedicatedMeasurementTermination                       |
    dedicatedMeasurementFailure                           |
    downlinkPowerControlFDD                               |
```

```
        downlinkPowerTimeslotControl                        |
        compressedModeCommandFDD                            |
        commonTransportChannelResourcesRelease              |
        errorIndication                                     |
        privateMessage                                      ,
        ...,
        radioLinkCongestion                                 |
        commonMeasurementFailure                            |
        commonMeasurementReporting                          |
        commonMeasurementTermination                        |
        informationExchangeFailure                          |
        informationExchangeTermination                      |
        informationReporting                                |
        radioLinkActivationFDD                              |
        radioLinkActivationTDD                              |
        gERANuplinkSignallingTransfer                       |
        radioLinkParameterUpdateFDD                         |
        radioLinkParameterUpdateTDD                         |
        uEMeasurementReporting                              |
        uEMeasurementTermination                            |
        uEMeasurementFailure                                |
        iurInvokeTrace                                      |
        iurDeactivateTrace                                  |
        mBMSAttach                                          |
        mBMSDetach                                          |
        directInformationTransfer

}


RNSAP-ELEMENTARY-PROCEDURES-CLASS-3 RNSAP-ELEMENTARY-PROCEDURE ::= {
        ...
}

-- ****************************************************************
--
-- Interface Elementary Procedures
--
-- ****************************************************************

radioLinkSetupFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
        INITIATING MESSAGE   RadioLinkSetupRequestFDD
        SUCCESSFUL OUTCOME   RadioLinkSetupResponseFDD
        UNSUCCESSFUL OUTCOME    RadioLinkSetupFailureFDD
        PROCEDURE ID          { procedureCode id-radioLinkSetup, ddMode fdd }
        CRITICALITY      reject
}

radioLinkSetupTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
        INITIATING MESSAGE   RadioLinkSetupRequestTDD
        SUCCESSFUL OUTCOME   RadioLinkSetupResponseTDD
        UNSUCCESSFUL OUTCOME    RadioLinkSetupFailureTDD
        PROCEDURE ID          { procedureCode id-radioLinkSetup, ddMode tdd }
        CRITICALITY      reject
}
```

```
radioLinkAdditionFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkAdditionRequestFDD
    SUCCESSFUL OUTCOME  RadioLinkAdditionResponseFDD
    UNSUCCESSFUL OUTCOME    RadioLinkAdditionFailureFDD
    PROCEDURE ID        { procedureCode id-radioLinkAddition , ddMode fdd }
    CRITICALITY     reject
}

radioLinkAdditionTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkAdditionRequestTDD
    SUCCESSFUL OUTCOME  RadioLinkAdditionResponseTDD
    UNSUCCESSFUL OUTCOME    RadioLinkAdditionFailureTDD
    PROCEDURE ID        { procedureCode id-radioLinkAddition , ddMode tdd }
    CRITICALITY     reject
}

radioLinkDeletion RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkDeletionRequest
    SUCCESSFUL OUTCOME  RadioLinkDeletionResponse
    PROCEDURE ID        { procedureCode id-radioLinkDeletion, ddMode common }
    CRITICALITY     reject
}

synchronisedRadioLinkReconfigurationPreparationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkReconfigurationPrepareFDD
    SUCCESSFUL OUTCOME  RadioLinkReconfigurationReadyFDD
    UNSUCCESSFUL OUTCOME    RadioLinkReconfigurationFailure
    PROCEDURE ID        { procedureCode id-synchronisedRadioLinkReconfigurationPreparation, ddMode fdd }
    CRITICALITY     reject
}

synchronisedRadioLinkReconfigurationPreparationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkReconfigurationPrepareTDD
    SUCCESSFUL OUTCOME  RadioLinkReconfigurationReadyTDD
    UNSUCCESSFUL OUTCOME    RadioLinkReconfigurationFailure
    PROCEDURE ID        { procedureCode id-synchronisedRadioLinkReconfigurationPreparation, ddMode tdd }
    CRITICALITY     reject
}

unSynchronisedRadioLinkReconfigurationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkReconfigurationRequestFDD
    SUCCESSFUL OUTCOME  RadioLinkReconfigurationResponseFDD
    UNSUCCESSFUL OUTCOME    RadioLinkReconfigurationFailure
    PROCEDURE ID        { procedureCode id-unSynchronisedRadioLinkReconfiguration, ddMode fdd }
    CRITICALITY     reject
}

unSynchronisedRadioLinkReconfigurationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkReconfigurationRequestTDD
    SUCCESSFUL OUTCOME  RadioLinkReconfigurationResponseTDD
    UNSUCCESSFUL OUTCOME    RadioLinkReconfigurationFailure
    PROCEDURE ID        { procedureCode id-unSynchronisedRadioLinkReconfiguration, ddMode tdd }
    CRITICALITY     reject
```

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```
}

physicalChannelReconfigurationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  PhysicalChannelReconfigurationRequestFDD
    SUCCESSFUL OUTCOME  PhysicalChannelReconfigurationCommand
    UNSUCCESSFUL OUTCOME    PhysicalChannelReconfigurationFailure
    PROCEDURE ID        { procedureCode id-physicalChannelReconfiguration, ddMode fdd }
    CRITICALITY     reject
}

physicalChannelReconfigurationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  PhysicalChannelReconfigurationRequestTDD
    SUCCESSFUL OUTCOME  PhysicalChannelReconfigurationCommand
    UNSUCCESSFUL OUTCOME    PhysicalChannelReconfigurationFailure
    PROCEDURE ID        { procedureCode id-physicalChannelReconfiguration, ddMode tdd }
    CRITICALITY     reject
}

dedicatedMeasurementInitiation RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  DedicatedMeasurementInitiationRequest
    SUCCESSFUL OUTCOME  DedicatedMeasurementInitiationResponse
    UNSUCCESSFUL OUTCOME    DedicatedMeasurementInitiationFailure
    PROCEDURE ID        { procedureCode id-dedicatedMeasurementInitiation, ddMode common }
    CRITICALITY     reject
}

commonTransportChannelResourcesInitialisationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  CommonTransportChannelResourcesRequest
    SUCCESSFUL OUTCOME  CommonTransportChannelResourcesResponseFDD
    UNSUCCESSFUL OUTCOME    CommonTransportChannelResourcesFailure
    PROCEDURE ID        { procedureCode id-commonTransportChannelResourcesInitialisation, ddMode fdd }
    CRITICALITY     reject
}

commonTransportChannelResourcesInitialisationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  CommonTransportChannelResourcesRequest
    SUCCESSFUL OUTCOME  CommonTransportChannelResourcesResponseTDD
    UNSUCCESSFUL OUTCOME    CommonTransportChannelResourcesFailure
    PROCEDURE ID        { procedureCode id-commonTransportChannelResourcesInitialisation, ddMode tdd }
    CRITICALITY     reject
}

uplinkSignallingTransferFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  UplinkSignallingTransferIndicationFDD
    PROCEDURE ID        { procedureCode id-uplinkSignallingTransfer, ddMode fdd }
    CRITICALITY     ignore
}

uplinkSignallingTransferTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  UplinkSignallingTransferIndicationTDD
    PROCEDURE ID        { procedureCode id-uplinkSignallingTransfer, ddMode tdd }
    CRITICALITY     ignore
}
```

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```
downlinkSignallingTransfer RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  DownlinkSignallingTransferRequest
    PROCEDURE ID        { procedureCode id-downlinkSignallingTransfer, ddMode common }
    CRITICALITY     ignore
}

relocationCommit RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RelocationCommit
    PROCEDURE ID        { procedureCode id-relocationCommit, ddMode common }
    CRITICALITY     ignore
}

paging RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  PagingRequest
    PROCEDURE ID        { procedureCode id-paging, ddMode common }
    CRITICALITY     ignore
}

synchronisedRadioLinkReconfigurationCommit RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkReconfigurationCommit
    PROCEDURE ID        { procedureCode id-synchronisedRadioLinkReconfigurationCommit, ddMode common }
    CRITICALITY     ignore
}

synchronisedRadioLinkReconfigurationCancellation RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkReconfigurationCancel
    PROCEDURE ID        { procedureCode id-synchronisedRadioLinkReconfigurationCancellation, ddMode common }
    CRITICALITY     ignore
}

radioLinkFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkFailureIndication
    PROCEDURE ID        { procedureCode id-radioLinkFailure, ddMode common }
    CRITICALITY     ignore
}

radioLinkPreemption RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkPreemptionRequiredIndication
    PROCEDURE ID        { procedureCode id-radioLinkPreemption, ddMode common }
    CRITICALITY     ignore
}

radioLinkRestoration RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkRestoreIndication
    PROCEDURE ID        { procedureCode id-radioLinkRestoration, ddMode common }
    CRITICALITY     ignore
}

dedicatedMeasurementReporting RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  DedicatedMeasurementReport
    PROCEDURE ID        { procedureCode id-dedicatedMeasurementReporting, ddMode common }
    CRITICALITY     ignore
}
```

```
dedicatedMeasurementTermination RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE   DedicatedMeasurementTerminationRequest
    PROCEDURE ID         { procedureCode id-dedicatedMeasurementTermination, ddMode common }
    CRITICALITY     ignore
}

dedicatedMeasurementFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE   DedicatedMeasurementFailureIndication
    PROCEDURE ID         { procedureCode id-dedicatedMeasurementFailure, ddMode common }
    CRITICALITY     ignore
}

radioLinkCongestion RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE   RadioLinkCongestionIndication
    PROCEDURE ID         { procedureCode id-radioLinkCongestion, ddMode common }
    CRITICALITY     ignore
}

downlinkPowerControlFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE   DL-PowerControlRequest
    PROCEDURE ID         { procedureCode id-downlinkPowerControl, ddMode fdd }
    CRITICALITY     ignore
}

downlinkPowerTimeslotControl RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE   DL-PowerTimeslotControlRequest
    PROCEDURE ID         { procedureCode id-downlinkPowerTimeslotControl, ddMode tdd }
    CRITICALITY     ignore
}

compressedModeCommandFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE   CompressedModeCommand
    PROCEDURE ID         { procedureCode id-compressedModeCommand, ddMode fdd }
    CRITICALITY     ignore
}

commonTransportChannelResourcesRelease RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE   CommonTransportChannelResourcesReleaseRequest
    PROCEDURE ID         { procedureCode id-commonTransportChannelResourcesRelease, ddMode common }
    CRITICALITY     ignore
}

errorIndication RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE   ErrorIndication
    PROCEDURE ID         { procedureCode id-errorIndication, ddMode common }
    CRITICALITY     ignore
}

commonMeasurementInitiation RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE       CommonMeasurementInitiationRequest
    SUCCESSFUL OUTCOME       CommonMeasurementInitiationResponse
    UNSUCCESSFUL OUTCOME     CommonMeasurementInitiationFailure
    PROCEDURE ID             { procedureCode id-commonMeasurementInitiation, ddMode common }
    CRITICALITY         reject
```

```
}

commonMeasurementReporting RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  CommonMeasurementReport
    PROCEDURE ID        { procedureCode id-commonMeasurementReporting, ddMode common }
    CRITICALITY         ignore
}

commonMeasurementTermination RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  CommonMeasurementTerminationRequest
    PROCEDURE ID        { procedureCode id-commonMeasurementTermination, ddMode common }
    CRITICALITY     ignore
}

commonMeasurementFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  CommonMeasurementFailureIndication
    PROCEDURE ID        { procedureCode id-commonMeasurementFailure, ddMode common }
    CRITICALITY     ignore
}

informationExchangeInitiation RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      InformationExchangeInitiationRequest
    SUCCESSFUL OUTCOME      InformationExchangeInitiationResponse
    UNSUCCESSFUL OUTCOME    InformationExchangeInitiationFailure
    PROCEDURE ID            { procedureCode id-informationExchangeInitiation, ddMode common }
    CRITICALITY             reject
}

informationReporting RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      InformationReport
    PROCEDURE ID            { procedureCode id-informationReporting, ddMode common }
    CRITICALITY             ignore
}

informationExchangeTermination RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      InformationExchangeTerminationRequest
    PROCEDURE ID            { procedureCode id-informationExchangeTermination, ddMode common }
    CRITICALITY             ignore
}

informationExchangeFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      InformationExchangeFailureIndication
    PROCEDURE ID            { procedureCode id-informationExchangeFailure, ddMode common }
    CRITICALITY             ignore
}

privateMessage RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  PrivateMessage
    PROCEDURE ID        { procedureCode id-privateMessage, ddMode common }
    CRITICALITY     ignore
}

reset RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      ResetRequest
```

```
    SUCCESSFUL OUTCOME      ResetResponse
    PROCEDURE ID            { procedureCode id-reset, ddMode common }
    CRITICALITY             reject
}

radioLinkActivationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkActivationCommandFDD
    PROCEDURE ID            { procedureCode id-radioLinkActivation, ddMode fdd }
    CRITICALITY             ignore
}

radioLinkActivationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkActivationCommandTDD
    PROCEDURE ID            { procedureCode id-radioLinkActivation, ddMode tdd }
    CRITICALITY             ignore
}

gERANuplinkSignallingTransfer RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  GERANUplinkSignallingTransferIndication
    PROCEDURE ID            { procedureCode id-gERANuplinkSignallingTransfer, ddMode common }
    CRITICALITY     ignore
}

radioLinkParameterUpdateFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkParameterUpdateIndicationFDD
    PROCEDURE ID            { procedureCode id-radioLinkParameterUpdate, ddMode fdd }
    CRITICALITY             ignore
}

radioLinkParameterUpdateTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkParameterUpdateIndicationTDD
    PROCEDURE ID            { procedureCode id-radioLinkParameterUpdate, ddMode tdd }
    CRITICALITY             ignore
}

uEMeasurementInitiation RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  UEMeasurementInitiationRequest
    SUCCESSFUL OUTCOME  UEMeasurementInitiationResponse
    UNSUCCESSFUL OUTCOME    UEMeasurementInitiationFailure
    PROCEDURE ID            { procedureCode id-uEMeasurementInitiation, ddMode tdd }
    CRITICALITY     reject
}

uEMeasurementReporting RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  UEMeasurementReport
    PROCEDURE ID            { procedureCode id-uEMeasurementReporting, ddMode tdd }
    CRITICALITY     ignore
}

uEMeasurementTermination RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  UEMeasurementTerminationRequest
    PROCEDURE ID            { procedureCode id-uEMeasurementTermination, ddMode tdd }
    CRITICALITY     ignore
```

```
}

uEMeasurementFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  UEMeasurementFailureIndication
    PROCEDURE ID        { procedureCode id-uEMeasurementFailure, ddMode tdd }
    CRITICALITY     ignore
}

iurInvokeTrace RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  IurInvokeTrace
    PROCEDURE ID        { procedureCode id-iurInvokeTrace, ddMode common }
    CRITICALITY         ignore
}

iurDeactivateTrace RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  IurDeactivateTrace
    PROCEDURE ID        { procedureCode id-iurDeactivateTrace, ddMode common }
    CRITICALITY         ignore
}

mBMSAttach RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      MBMSAttachCommand
    PROCEDURE ID            { procedureCode id-mBMSAttach, ddMode common }
    CRITICALITY             ignore
}

mBMSDetach RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      MBMSDetachCommand
    PROCEDURE ID            { procedureCode id-mBMSDetach, ddMode common }
    CRITICALITY             ignore
}

directInformationTransfer RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      DirectInformationTransfer
    PROCEDURE ID            { procedureCode id-directInformationTransfer, ddMode common }
    CRITICALITY             ignore
}


END
```

9.3.3   PDU Definitions

```
-- *************************************************************
--
-- PDU definitions for RNSAP.
--
-- *************************************************************

RNSAP-PDU-Contents {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-PDU-Contents (1) }
```

```
DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- **************************************************************
--
-- IE parameter types from other modules.
--
-- **************************************************************

IMPORTS
    Active-Pattern-Sequence-Information,
    Active-MBMS-Bearer-Service-ListFDD,
    Active-MBMS-Bearer-Service-ListFDD-PFL,
    Active-MBMS-Bearer-Service-ListTDD,
    Active-MBMS-Bearer-Service-ListTDD-PFL,
    AllocationRetentionPriority,
    AllowedQueuingTime,
    Allowed-Rate-Information,
    AlphaValue,
    AlternativeFormatReportingIndicator,
    AntennaColocationIndicator,
    BLER,
    SCTD-Indicator,
    BindingID,
    C-ID,
    C-RNTI,
    CCTrCH-ID,
    CFN,
    CGI,
    ClosedLoopMode1-SupportIndicator,
    Closedlooptimingadjustmentmode,
    CN-CS-DomainIdentifier,
    CN-PS-DomainIdentifier,
    CNDomainType,
    Cause,
    CellCapabilityContainer-FDD,
    CellCapabilityContainer-TDD,
    CellCapabilityContainer-TDD-LCR,
    CellCapabilityContainer-TDD768,
    CellParameterID,
    CellPortionID,
    ChipOffset,
    CommonMeasurementAccuracy,
    CommonMeasurementType,
    CommonMeasurementValue,
    CommonMeasurementValueInformation,
    CommonTransportChannelResourcesInitialisationNotRequired,
    CongestionCause,
    Continuous-Packet-Connectivity-DTX-DRX-Information,
    Continuous-Packet-Connectivity-HS-SCCH-Less-Information,
    Continuous-Packet-Connectivity-HS-SCCH-Less-Information-Response,
    CPC-Information,
    CoverageIndicator,
```

ETSI

```
        CriticalityDiagnostics,
        D-RNTI,
        D-RNTI-ReleaseIndication,
        DCH-FDD-Information,
        DCH-ID,
        DCH-Indicator-For-E-DCH-HSDPA-Operation,
        DPCH-ID768,
        DCH-InformationResponse,
        DCH-TDD-Information,
        DL-DPCH-SlotFormat,
        DL-TimeslotISCP,
        DL-Power,
        DL-PowerBalancing-Information,
        DL-PowerBalancing-ActivationIndicator,
        DL-PowerBalancing-UpdatedIndicator,
        DL-ReferencePowerInformation,
        DL-ScramblingCode,
        DL-Timeslot-Information,
        DL-Timeslot-Information768,
        DL-TimeslotLCR-Information,
        DL-TimeSlot-ISCP-Info,
        DL-TimeSlot-ISCP-LCR-Information,
        DPC-Mode,
        DPC-Mode-Change-SupportIndicator,
        DPCH-ID,
        DL-DPCH-TimingAdjustment,
        DRXCycleLengthCoefficient,
        DedicatedMeasurementType,
        DedicatedMeasurementValue,
        DedicatedMeasurementValueInformation,
        DelayedActivation,
        DelayedActivationUpdate,
        DiversityControlField,
        DiversityMode,
        DSCH-FlowControlInformation,
        DSCH-FlowControlItem,
        DSCH-TDD-Information,
        DSCH-ID,
        DSCH-RNTI,
        EDCH-FDD-Information,
        EDCH-FDD-InformationResponse,
        EDCH-FDD-Information-To-Modify,
        EDCH-FDD-DL-ControlChannelInformation,
        EDCH-DDI-Value,
        EDCH-MACdFlow-ID,
        EDCH-MACdFlow-Specific-InfoList,
        EDCH-MACdFlows-To-Delete,
        EDCH-MACdFlows-Information,
        EDCH-RL-Indication,
        EDCH-Serving-RL,
        E-DCH-Serving-cell-change-informationResponse,
        EDPCH-Information-FDD,
        EDPCH-Information-RLReconfPrepare-FDD,
        EDPCH-Information-RLReconfRequest-FDD,
```

```
    E-DCH-FDD-Update-Information,
    E-DPCCH-PO,
    E-RGCH-2-IndexStepThreshold,
    E-RGCH-3-IndexStepThreshold,
    E-RNTI,
    E-TFCS-Information,
    E-TTI,
    Enhanced-FACH-Support-Indicator,
    Enhanced-FACH-Information-ResponseFDD,
    Enhanced-PCH-Capability,
    ExtendedPropagationDelay,
    Extended-RNC-ID,
    SchedulingPriorityIndicator,
    Enhanced-PrimaryCPICH-EcNo,
    F-DPCH-SlotFormat,
    F-DPCH-SlotFormatSupportRequest,
    FACH-FlowControlInformation,
    Fast-Reconfiguration-Mode,
    Fast-Reconfiguration-Permission,
    FDD-DCHs-to-Modify,
    FDD-DL-ChannelisationCodeNumber,
    FDD-DL-CodeInformation,
    FDD-TPC-DownlinkStepSize,
    FirstRLS-Indicator,
    FNReportingIndicator,
    FrameHandlingPriority,
    FrameOffset,
    GA-AccessPointPosition,
    GA-Cell,
    GA-CellAdditionalShapes,
    HARQ-Info-for-E-DCH,
    HCS-Prio,
    HSDSCH-Configured-Indicator,
    HSDSCH-FDD-Information,
    HSDSCH-FDD-Information-Response,
    HSDSCH-FDD-Update-Information,
    HSDSCH-TDD-Update-Information,
    HSDSCH-Information-to-Modify,
    HSDSCH-Information-to-Modify-Unsynchronised,
    HSDSCH-MACdFlow-ID,
    HSDSCH-MACdFlows-Information,
    HSDSCH-MACdFlows-to-Delete,
    HSDSCH-RNTI,
    HS-DSCH-serving-cell-change-information,
    HS-DSCH-serving-cell-change-informationResponse,
    HSDSCH-TDD-Information,
    HSDSCH-TDD-Information-Response,
    HS-SICH-ID,
    IMSI,
    InformationExchangeID,
    InformationReportCharacteristics,
    InformationType,
    Initial-DL-DPCH-TimingAdjustment-Allowed,
    InnerLoopDLPCStatus,
```

ETSI

```
Inter-Frequency-Cell-List,
L3-Information,
LimitedPowerIncrease,
MaximumAllowedULTxPower,
MaxNrDLPhysicalchannels,
MaxNrDLPhysicalchannelsTS,
MaxNrDLPhysicalchannels768,
MaxNrDLPhysicalchannelsTS768,
MaxNrOfUL-DPCHs,
MaxNrTimeslots,
MaxNrULPhysicalchannels,
MACes-Guaranteed-Bitrate,
MaxNr-Retransmissions-EDCH,
Max-Set-E-DPDCHs,
Max-UE-DTX-Cycle,
MeasurementFilterCoefficient,
MeasurementID,
MeasurementRecoveryBehavior,
MeasurementRecoveryReportingIndicator,
MeasurementRecoverySupportIndicator,
MBMS-Bearer-Service-List,
MidambleAllocationMode,
MidambleShiftAndBurstType,
MidambleShiftAndBurstType768,
MidambleShiftLCR,
MinimumSpreadingFactor,
MinimumSpreadingFactor768,
MinUL-ChannelisationCodeLength,
Multiple-PLMN-List,
MultiplexingPosition,
NeighbouringFDDCellMeasurementInformation,
NeighbouringTDDCellMeasurementInformation,
NeighbouringTDDCellMeasurementInformation768,
Neighbouring-GSM-CellInformation,
Neighbouring-UMTS-CellInformation,
NeighbouringTDDCellMeasurementInformationLCR,
NrOfDLchannelisationcodes,
PagingCause,
PagingRecordType,
PartialReportingIndicator,
PayloadCRC-PresenceIndicator,
PCCPCH-Power,
PC-Preamble,
Permanent-NAS-UE-Identity,
Phase-Reference-Update-Indicator,
PowerAdjustmentType,
PowerOffset,
PrimaryCCPCH-RSCP,
PrimaryCPICH-EcNo,
PrimaryCPICH-Power,
Primary-CPICH-Usage-For-Channel-Estimation,
PrimaryScramblingCode,
PropagationDelay,
ProvidedInformation,
```

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        PunctureLimit,
        QE-Selector,
        RANAP-RelocationInformation,
        RB-Info,
        RL-ID,
        RL-Set-ID,
        RL-Specific-EDCH-Information,
        RNC-ID,
        RepetitionLength,
        RepetitionPeriod,
        ReportCharacteristics,
        Received-total-wide-band-power,
        RequestedDataValue,
        RequestedDataValueInformation,
        RL-Specific-DCH-Info,
        RxTimingDeviationForTA,
        RxTimingDeviationForTA768,
        S-RNTI,
        S-RNTI-Group,
        SCH-TimeSlot,
        SAI,
        SFN,
        Secondary-CCPCH-Info-TDD,
        Secondary-CCPCH-Info-TDD768,
        Secondary-CPICH-Information,
        Secondary-CPICH-Information-Change,
        Secondary-LCR-CCPCH-Info-TDD,
        SNA-Information,
        SpecialBurstScheduling,
        SSDT-SupportIndicator,
        STTD-SupportIndicator,
        AdjustmentPeriod,
        ScaledAdjustmentRatio,
        MaxAdjustmentStep,
        SRB-Delay,
        Support-8PSK,
        SyncCase,
        SynchronisationConfiguration,
        SixtyfourQAM-DL-SupportIndicator,
        TDD-ChannelisationCode,
        TDD-ChannelisationCode768,
        TDD-DCHs-to-Modify,
        TDD-DL-Code-Information,
        TDD-DPCHOffset,
        TDD-PhysicalChannelOffset,
        TDD-TPC-DownlinkStepSize,
        TDD-ChannelisationCodeLCR,
        TDD-DL-Code-LCR-Information,
        TDD-DL-Code-Information768,
        TDD-UL-Code-Information,
        TDD-UL-Code-LCR-Information,
        TDD-UL-Code-Information768,
        TFCI-Coding,
        TFCI-Presence,
```

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        TFCI-SignallingMode,
        TimeSlot,
        TimeSlotLCR,
        TimingAdvanceApplied,
        TMGI,
        TnlQos,
        ToAWE,
        ToAWS,
        TraceDepth,
        TraceRecordingSessionReference,
        TraceReference,
        TrafficClass,
        TransmitDiversityIndicator,
        TransportBearerID,
        TransportBearerRequestIndicator,
        TFCS,
        Transmission-Gap-Pattern-Sequence-Information,
        TransportFormatManagement,
        TransportFormatSet,
        TransportLayerAddress,
        TrCH-SrcStatisticsDescr,
        TSTD-Indicator,
        TSTD-Support-Indicator,
        UARFCN,
        UC-ID,
        UEIdentity,
        UEMeasurementType,
        UEMeasurementTimeslotInfoHCR,
        UEMeasurementTimeslotInfoLCR,
        UEMeasurementTimeslotInfo768,
        UEMeasurementReportCharacteristics,
        UEMeasurementParameterModAllow,
        UEMeasurementValueInformation,
        UE-State,
        UL-DPCCH-SlotFormat,
        UL-DPDCHIndicatorEDCH,
        UL-SIR,
        UL-FP-Mode,
        UL-PhysCH-SF-Variation,
        UL-ScramblingCode,
        UL-Timeslot-Information,
        UL-Timeslot-Information768,
        UL-TimeslotLCR-Information,
        UL-TimeSlot-ISCP-Info,
        UL-TimeSlot-ISCP-LCR-Info,
        URA-ID,
        URA-Information,
        USCH-ID,
        USCH-Information,
        UL-Synchronisation-Parameters-LCR,
        TDD-DL-DPCH-TimeSlotFormat-LCR,
        TDD-UL-DPCH-TimeSlotFormat-LCR,
        MAChs-ResetIndicator,
        UL-TimingAdvanceCtrl-LCR,
```

```
        TDD-TPC-UplinkStepSize-LCR,
        PrimaryCCPCH-RSCP-Delta,
        SynchronisationIndicator,
        Support-PLCCH,
        PLCCHinformation,
        RxTimingDeviationForTAext,
        E-DCH-Information,
        E-DCH-Information-Reconfig,
        E-DCH-Information-Response,
        E-DCH-768-Information,
        E-DCH-768-Information-Reconfig,
        E-DCH-768-Information-Response,
        E-DCH-LCR-Information,
        E-DCH-LCR-Information-Reconfig,
        E-DCH-LCR-Information-Response,
        ControlGAP,
        HS-SICH-ID-Extension,
        TSN-Length,
        UPPCHPositionLCR


FROM RNSAP-IEs

        PrivateIE-Container{},
        ProtocolExtensionContainer{},
        ProtocolIE-ContainerList{},
        ProtocolIE-ContainerPair{},
        ProtocolIE-ContainerPairList{},
        ProtocolIE-Container{},
        ProtocolIE-Single-Container{},
        RNSAP-PRIVATE-IES,
        RNSAP-PROTOCOL-EXTENSION,
        RNSAP-PROTOCOL-IES,
        RNSAP-PROTOCOL-IES-PAIR
FROM RNSAP-Containers

        maxCellsMeas,
        maxNoOfDSCHs,
        maxNoOfUSCHs,
        maxNrOfCCTrCHs,
        maxNrOfDCHs,
        maxNrOfTS,
        maxNrOfDPCHs,
        maxNrOfDPCHs768,
        maxNrOfDPCHsPerRL-1,
        maxNrOfDPCHs768PerRL-1,
        maxNrOfInterfaces,
        maxNrOfRLs,
        maxNrOfRLSets,
        maxNrOfRLSets-1,
        maxNrOfRLs-1,
        maxNrOfRLs-2,
        maxNrOfULTs,
        maxNrOfDLTs,
```

```
        maxResetContext,
        maxResetContextGroup,
        maxNoOfDSCHsLCR,
        maxNoOfUSCHsLCR,
        maxNrOfCCTrCHsLCR,
        maxNrOfTsLCR,
        maxNrOfDLTsLCR,
        maxNrOfULTsLCR,
        maxNrOfDPCHsLCR,
        maxNrOfDPCHsLCRPerRL-1,
        maxNrOfLCRTDDNeighboursPerRNC,
        maxNrOfMeasNCell,
        maxNrOfMACdFlows,
        maxNrOfMACdPDUSize,
        maxNrOfEDCHMACdFlows,
        maxNrOfHSSICHs,
        maxNrOfHSSICHs-1,
        maxNrOfActiveMBMSServices,
        maxNrOfMBMSServices,
        maxNrofSigSeqERGHICH-1,


        id-Active-MBMS-Bearer-ServiceFDD,
        id-Active-MBMS-Bearer-ServiceFDD-PFL,
        id-Active-MBMS-Bearer-ServiceTDD,
        id-Active-MBMS-Bearer-ServiceTDD-PFL,
        id-Active-Pattern-Sequence-Information,
        id-AdjustmentRatio,
        id-AllowedQueuingTime,
        id-AlternativeFormatReportingIndicator,
        id-AntennaColocationIndicator,
        id-BindingID,
        id-C-ID,
        id-C-RNTI,
        id-CFN,
        id-CFNReportingIndicator,
        id-CN-CS-DomainIdentifier,
        id-CN-PS-DomainIdentifier,
        id-Cause,
        id-CauseLevel-RL-AdditionFailureFDD,
        id-CauseLevel-RL-AdditionFailureTDD,
        id-CauseLevel-RL-ReconfFailure,
        id-CauseLevel-RL-SetupFailureFDD,
        id-CauseLevel-RL-SetupFailureTDD,
        id-CCTrCH-InformationItem-RL-FailureInd,
        id-CCTrCH-InformationItem-RL-RestoreInd,
        id-CellCapabilityContainer-FDD,
        id-CellCapabilityContainer-TDD,
        id-CellCapabilityContainer-TDD-LCR,
        id-CellPortionID,
        id-ChipOffset,
        id-ClosedLoopMode1-SupportIndicator,
        id-CNOriginatedPage-PagingRqst,
        id-CommonMeasurementAccuracy,
        id-CommonMeasurementObjectType-CM-Rprt,
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ETSI

```
        id-CommonMeasurementObjectType-CM-Rqst,
        id-CommonMeasurementObjectType-CM-Rsp,
        id-CommonMeasurementType,
        id-CommonTransportChannelResourcesInitialisationNotRequired,
        id-CongestionCause,
        id-Continuous-Packet-Connectivity-DTX-DRX-Information,
        id-Continuous-Packet-Connectivity-HS-SCCH-Less-Information,
        id-Continuous-Packet-Connectivity-HS-SCCH-Less-Information-Response,
        id-CPC-Information,
        id-CoverageIndicator,
        id-CriticalityDiagnostics,
        id-D-RNTI,
        id-D-RNTI-ReleaseIndication,
        id-DCHs-to-Add-FDD,
        id-DCHs-to-Add-TDD,
        id-DCH-DeleteList-RL-ReconfPrepFDD,
        id-DCH-DeleteList-RL-ReconfPrepTDD,
        id-DCH-DeleteList-RL-ReconfRqstFDD,
        id-DCH-DeleteList-RL-ReconfRqstTDD,
        id-DCH-FDD-Information,
        id-DCH-TDD-Information,
        id-DCH-Indicator-For-E-DCH-HSDPA-Operation,
        id-FDD-DCHs-to-Modify,
        id-TDD-DCHs-to-Modify,
        id-DCH-InformationResponse,
        id-DCH-Rate-InformationItem-RL-CongestInd,
        id-DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD,
        id-DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD,
        id-DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD,
        id-DL-CCTrCH-InformationListIE-RL-ReconfReadyTDD,
        id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD,
        id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD,
        id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD,
        id-DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD,
        id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD,
        id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD,
        id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD,
        id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD,
        id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD,
        id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD,
        id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,
        id-DL-CCTrCH-InformationList-RL-SetupRqstTDD,
        id-FDD-DL-CodeInformation,
        id-DL-DPCH-Information-RL-ReconfPrepFDD,
        id-DL-DPCH-Information-RL-SetupRqstFDD,
        id-DL-DPCH-Information-RL-ReconfRqstFDD,
        id-DL-DPCH-InformationItem-PhyChReconfRqstTDD,
        id-DL-DPCH-InformationItem-RL-AdditionRspTDD,
        id-DL-DPCH-InformationItem-RL-SetupRspTDD,
        id-DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD,
        id-DL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD,
        id-DL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD,
        id-DL-DPCH-TimingAdjustment,
        id-DL-DPCH-Power-Information-RL-ReconfPrepFDD,
```

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id-DL-Physical-Channel-Information-RL-SetupRqstTDD,
id-DL-PowerBalancing-Information,
id-DL-PowerBalancing-ActivationIndicator,
id-DL-PowerBalancing-UpdatedIndicator,
id-DL-ReferencePowerInformation,
id-DLReferencePower,
id-DLReferencePowerList-DL-PC-Rqst,
id-DL-ReferencePowerInformation-DL-PC-Rqst,
id-DRXCycleLengthCoefficient,
id-DedicatedMeasurementObjectType-DM-Fail,
id-DedicatedMeasurementObjectType-DM-Fail-Ind,
id-DedicatedMeasurementObjectType-DM-Rprt,
id-DedicatedMeasurementObjectType-DM-Rqst,
id-DedicatedMeasurementObjectType-DM-Rsp,
id-DedicatedMeasurementType,
id-DelayedActivation,
id-DelayedActivationList-RL-ActivationCmdFDD,
id-DelayedActivationList-RL-ActivationCmdTDD,
id-DelayedActivationInformation-RL-ActivationCmdFDD,
id-DelayedActivationInformation-RL-ActivationCmdTDD,
id-DPC-Mode,
id-DPC-Mode-Change-SupportIndicator,
id-DSCHs-to-Add-TDD,
id-DSCH-DeleteList-RL-ReconfPrepTDD,
id-DSCH-InformationListIE-RL-AdditionRspTDD,
id-DSCH-InformationListIEs-RL-SetupRspTDD,
id-DSCH-TDD-Information,
id-DSCH-ModifyList-RL-ReconfPrepTDD,
id-DSCH-RNTI,
id-DSCHToBeAddedOrModifiedList-RL-ReconfReadyTDD,
id-EDPCH-Information,
id-EDCH-RL-Indication,
id-EDCH-FDD-Information,
id-Serving-EDCHRL-Id,
id-EDCH-FDD-DL-ControlChannelInformation,
id-EDCH-FDD-InformationResponse,
id-E-DCH-FDD-Update-Information,
id-EDCH-MACdFlows-To-Add,
id-EDCH-FDD-Information-To-Modify,
id-EDCH-MACdFlows-To-Delete,
id-EDPCH-Information-RLReconfRequest-FDD,
id-EDPCH-Information-RLAdditionReq-FDD,
id-EDCH-MacdFlowSpecificInformationList-RL-PreemptRequiredInd,
id-EDCH-MacdFlowSpecificInformationItem-RL-PreemptRequiredInd,
id-EDCH-MacdFlowSpecificInformationList-RL-CongestInd,
id-EDCH-MacdFlowSpecificInformationItem-RL-CongestInd,
id-Enhanced-FACH-Support-Indicator,
id-Enhanced-FACH-Information-ResponseFDD,
id-Enhanced-PCH-Capability,
id-ExtendedPropagationDelay,
id-Extended-SRNC-ID,
id-Extended-RNC-ID,
id-Serving-cell-change-CFN,
id-E-DCH-Serving-cell-change-informationResponse,
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ETSI

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id-Enhanced-PrimaryCPICH-EcNo,
id-F-DPCH-SlotFormat,
id-F-DPCH-SlotFormatSupportRequest,
id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD,
id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD,
id-Fast-Reconfiguration-Mode,
id-Fast-Reconfiguration-Permission,
id-FrameOffset,
id-F-DPCH-Information-RL-ReconfPrepFDD,
id-F-DPCH-Information-RL-SetupRqstFDD,
id-GA-Cell,
id-GA-CellAdditionalShapes,
id-GSM-Cell-InfEx-Rqst,
id-HCS-Prio,
id-HSDSCH-Configured-Indicator,
id-HSDSCH-FDD-Information,
id-HSDSCH-FDD-Information-Response,
id-HSDSCH-FDD-Update-Information,
id-HSDSCH-TDD-Update-Information,
id-HSDSCH-Information-to-Modify,
id-HSDSCH-Information-to-Modify-Unsynchronised,
id-HSDSCH-MACdFlows-to-Add,
id-HSDSCH-MACdFlows-to-Delete,
id-HSDSCHMacdFlowSpecificInformationList-RL-PreemptRequiredInd,
id-HSDSCHMacdFlowSpecificInformationItem-RL-PreemptRequiredInd,
id-HSDSCH-RNTI,
id-HS-DSCH-serving-cell-change-information,
id-HS-DSCH-serving-cell-change-informationResponse,
id-HSDSCH-TDD-Information,
id-HSDSCH-TDD-Information-Response,
id-HSPDSCH-RL-ID,
id-HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD,
id-HSPDSCH-Timeslot-InformationListLCR-PhyChReconfRqstTDD,
id-HSSICH-Info-DM-Rprt,
id-HSSICH-Info-DM-Rqst,
id-HSSICH-Info-DM,
id-IMSI,
id-InformationExchangeID,
id-InformationExchangeObjectType-InfEx-Rprt,
id-InformationExchangeObjectType-InfEx-Rqst,
id-InformationExchangeObjectType-InfEx-Rsp,
id-InformationReportCharacteristics,
id-InformationType,
id-Initial-DL-DPCH-TimingAdjustment,
id-Initial-DL-DPCH-TimingAdjustment-Allowed,
id-InnerLoopDLPCStatus,
id-InterfacesToTraceItem,
id-Inter-Frequency-Cell-List,
id-L3-Information,
id-AdjustmentPeriod,
id-ListOfInterfacesToTrace,
id-MaxAdjustmentStep,
id-Max-UE-DTX-Cycle,
id-MBMS-Bearer-Service-List,
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        id-MBMS-Bearer-Service-List-InfEx-Rsp,
        id-MeasurementFilterCoefficient,
        id-MeasurementID,
        id-MeasurementRecoveryBehavior,
        id-MeasurementRecoveryReportingIndicator,
        id-MeasurementRecoverySupportIndicator,
        id-Multiple-PLMN-List,
        id-Multiple-RL-InformationResponse-RL-ReconfReadyTDD,
        id-NACC-Related-Data,
        id-Old-URA-ID,
        id-PagingArea-PagingRqst,
        id-PartialReportingIndicator,
        id-PDSCH-RL-ID,
        id-Permanent-NAS-UE-Identity,
        id-Phase-Reference-Update-Indicator,
        id-FACH-FlowControlInformation,
        id-PLCCH-Information-PhyChReconfRqstTDD,
        id-PowerAdjustmentType,
        id-PrimCCPCH-RSCP-DL-PC-RqstTDD,
        id-Primary-CPICH-Usage-For-Channel-Estimation,
        id-PropagationDelay,
        id-ProvidedInformation,
        id-RANAP-RelocationInformation,
        id-ResetIndicator,
        id-EDCH-RLSet-Id,
        id-RL-Information-PhyChReconfRqstFDD,
        id-RL-Information-PhyChReconfRqstTDD,
        id-RL-Information-RL-AdditionRqstFDD,
        id-RL-Information-RL-AdditionRqstTDD,
        id-RL-Information-RL-DeletionRqst,
        id-RL-Information-RL-FailureInd,
        id-RL-Information-RL-ReconfPrepFDD,
        id-RL-Information-RL-ReconfPrepTDD,
        id-RL-Information-RL-RestoreInd,
        id-RL-Information-RL-SetupRqstFDD,
        id-RL-Information-RL-SetupRqstTDD,
        id-RL-InformationItem-RL-CongestInd,
        id-RL-InformationItem-DM-Rprt,
        id-RL-InformationItem-DM-Rqst,
        id-RL-InformationItem-DM-Rsp,
        id-RL-InformationItem-RL-PreemptRequiredInd,
        id-RL-InformationItem-RL-SetupRqstFDD,
        id-RL-InformationList-RL-CongestInd,
        id-RL-InformationList-RL-AdditionRqstFDD,
        id-RL-InformationList-RL-DeletionRqst,
        id-RL-InformationList-RL-PreemptRequiredInd,
        id-RL-InformationList-RL-ReconfPrepFDD,
        id-RL-InformationResponse-RL-AdditionRspTDD,
        id-RL-InformationResponse-RL-ReconfReadyTDD,
        id-RL-InformationResponse-RL-ReconfRspTDD,
        id-RL-InformationResponse-RL-SetupRspTDD,
        id-RL-InformationResponseItem-RL-AdditionRspFDD,
        id-RL-InformationResponseItem-RL-ReconfReadyFDD,
        id-RL-InformationResponseItem-RL-ReconfRspFDD,
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        id-RL-InformationResponseItem-RL-SetupRspFDD,
        id-RL-InformationResponseList-RL-AdditionRspFDD,
        id-RL-InformationResponseList-RL-ReconfReadyFDD,
        id-RL-InformationResponseList-RL-ReconfRspFDD,
        id-RL-InformationResponseList-RL-SetupRspFDD,
        id-RL-ParameterUpdateIndicationFDD-RL-Information-Item,
        id-RL-ParameterUpdateIndicationFDD-RL-InformationList,
        id-RL-ReconfigurationFailure-RL-ReconfFail,
        id-RL-ReconfigurationRequestFDD-RL-InformationList,
        id-RL-ReconfigurationRequestFDD-RL-Information-IEs,
        id-RL-ReconfigurationRequestTDD-RL-Information,
        id-RL-ReconfigurationResponseTDD-RL-Information,
        id-RL-Specific-DCH-Info,
        id-RL-Specific-EDCH-Information,
        id-RL-Set-InformationItem-DM-Rprt,
        id-RL-Set-InformationItem-DM-Rqst,
        id-RL-Set-InformationItem-DM-Rsp,
        id-RL-Set-Information-RL-FailureInd,
        id-RL-Set-Information-RL-RestoreInd,
        id-RL-Set-Successful-InformationItem-DM-Fail,
        id-RL-Set-Unsuccessful-InformationItem-DM-Fail,
        id-RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind,
        id-RL-Successful-InformationItem-DM-Fail,
        id-RL-Unsuccessful-InformationItem-DM-Fail,
        id-RL-Unsuccessful-InformationItem-DM-Fail-Ind,
        id-ReportCharacteristics,
        id-Reporting-Object-RL-FailureInd,
        id-Reporing-Object-RL-RestoreInd,
        id-RNC-ID,
        id-RxTimingDeviationForTA,
        id-S-RNTI,
        id-SAI,
        id-Secondary-CPICH-Information,
        id-Secondary-CPICH-Information-Change,
        id-SixtyfourQAM-DL-SupportIndicator,
        id-SFN,
        id-SFNReportingIndicator,
        id-SNA-Information,
        id-SRNC-ID,
        id-STTD-SupportIndicator,
        id-SuccessfulRL-InformationResponse-RL-AdditionFailureFDD,
        id-SuccessfulRL-InformationResponse-RL-SetupFailureFDD,
        id-TDD-maxNrDLPhysicalchannels,
        id-TDD-Support-8PSK,
        id-TDD-Support-PLCCH,
        id-timeSlot-ISCP,
        id-TimeSlot-RL-SetupRspTDD,
        id-TnlQos,
        id-TraceDepth,
        id-TraceRecordingSessionReference,
        id-TraceReference,
        id-TransportBearerID,
        id-TransportBearerRequestIndicator,
        id-TransportLayerAddress,
```

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        id-UC-ID,
        id-ContextInfoItem-Reset,
        id-ContextGroupInfoItem-Reset,
        id-Transmission-Gap-Pattern-Sequence-Information,
        id-UEIdentity,
        id-UEMeasurementType,
        id-UEMeasurementTimeslotInfoHCR,
        id-UEMeasurementTimeslotInfoLCR,
        id-UEMeasurementReportCharacteristics,
        id-UEMeasurementParameterModAllow,
        id-UEMeasurementValueInformation,
        id-UE-State,
        id-UL-CCTrCH-AddInformation-RL-ReconfPrepTDD,
        id-UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD,
        id-UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD,
        id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD,
        id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD,
        id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD,
        id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD,
        id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD,
        id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD,
        id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,
        id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD,
        id-UL-CCTrCH-InformationList-RL-SetupRqstTDD,
        id-UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD,
        id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD,
        id-UL-CCTrCH-InformationListIE-RL-ReconfReadyTDD,
        id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD,
        id-UL-DPCH-Information-RL-ReconfPrepFDD,
        id-UL-DPCH-Information-RL-ReconfRqstFDD,
        id-UL-DPCH-Information-RL-SetupRqstFDD,
        id-UL-DPDCHIndicatorEDCH,
        id-UL-DPCH-InformationItem-PhyChReconfRqstTDD,
        id-UL-DPCH-InformationItem-RL-AdditionRspTDD,
        id-UL-DPCH-InformationItem-RL-SetupRspTDD,
        id-UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD,
        id-UL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD,
        id-UL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD,
        id-UL-Physical-Channel-Information-RL-SetupRqstTDD,
        id-UL-SIRTarget,
        id-URA-ID,
        id-URA-Information,
        id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD,
        id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD,
        id-UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD,
        id-UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD,
        id-USCHs-to-Add,
        id-USCH-DeleteList-RL-ReconfPrepTDD,
        id-USCH-InformationListIE-RL-AdditionRspTDD,
        id-USCH-InformationListIEs-RL-SetupRspTDD,
        id-USCH-Information,
        id-USCH-ModifyList-RL-ReconfPrepTDD,
        id-USCHToBeAddedOrModifiedList-RL-ReconfReadyTDD,
        id-DL-Timeslot-ISCP-LCR-Information-RL-SetupRqstTDD,
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        id-RL-LCR-InformationResponse-RL-SetupRspTDD,
        id-UL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD,
        id-UL-DPCH-LCR-InformationItem-RL-SetupRspTDD,
        id-DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD,
        id-DL-DPCH-LCR-InformationItem-RL-SetupRspTDD,
        id-DSCH-LCR-InformationListIEs-RL-SetupRspTDD,
        id-USCH-LCR-InformationListIEs-RL-SetupRspTDD,
        id-DL-Timeslot-ISCP-LCR-Information-RL-AdditionRqstTDD,
        id-RL-LCR-InformationResponse-RL-AdditionRspTDD,
        id-UL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD,
        id-UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD,
        id-DL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD,
        id-DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD,
        id-DSCH-LCR-InformationListIEs-RL-AdditionRspTDD,
        id-USCH-LCR-InformationListIEs-RL-AdditionRspTDD,
        id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD,
        id-UL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD,
        id-DL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD,
        id-DL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD,
        id-UL-Timeslot-LCR-InformationList-PhyChReconfRqstTDD,
        id-DL-Timeslot-LCR-InformationList-PhyChReconfRqstTDD,
        id-timeSlot-ISCP-LCR-List-DL-PC-Rqst-TDD,
        id-TSTD-Support-Indicator-RL-SetupRqstTDD,
        id-PrimaryCCPCH-RSCP-RL-ReconfPrepTDD,
        id-DL-TimeSlot-ISCP-Info-RL-ReconfPrepTDD,
        id-DL-Timeslot-ISCP-LCR-Information-RL-ReconfPrepTDD,
        id-neighbouringTDDCellMeasurementInformationLCR,
        id-UL-SIR-Target-CCTrCH-InformationItem-RL-SetupRspTDD,
        id-UL-SIR-Target-CCTrCH-LCR-InformationItem-RL-SetupRspTDD,
        id-TrafficClass,
        id-UL-Synchronisation-Parameters-LCR,
        id-TDD-DL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD,
        id-TDD-UL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD,
        id-MAChs-ResetIndicator,
        id-UL-TimingAdvanceCtrl-LCR,
        id-CCTrCH-Maximum-DL-Power-RL-SetupRspTDD,
        id-CCTrCH-Minimum-DL-Power-RL-SetupRspTDD,
        id-CCTrCH-Maximum-DL-Power-RL-AdditionRspTDD,
        id-CCTrCH-Minimum-DL-Power-RL-AdditionRspTDD,
        id-CCTrCH-Maximum-DL-Power-RL-ReconfReadyTDD,
        id-CCTrCH-Minimum-DL-Power-RL-ReconfReadyTDD,
        id-Maximum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD,
        id-Minimum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD,
        id-DL-CCTrCH-InformationList-RL-ReconfRspTDD,
        id-DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD,
        id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD,
        id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD,
        id-UL-CCTrCH-InformationItem-RL-AdditionRqstTDD,
        id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD,
        id-DL-CCTrCH-InformationItem-RL-AdditionRqstTDD,
        id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD,
        id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD,
        id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD,
        id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD,
```

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id-PrimaryCCPCH-RSCP-Delta,
id-multiple-DedicatedMeasurementValueList-TDD-DM-Rsp,
id-multiple-DedicatedMeasurementValueList-LCR-TDD-DM-Rsp,
id-SynchronisationIndicator,
id-secondary-LCR-CCPCH-Info-TDD,
id-multiple-HSSICHMeasurementValueList-TDD-DM-Rsp,
id-CellCapabilityContainer-TDD768,
id-neighbouringTDDCellMeasurementInformation768,
id-RL-InformationResponse-RL-SetupRspTDD768,
id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD768,
id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD768,
id-UL-DPCH-InformationItem-RL-SetupRspTDD768,
id-DL-DPCH-InformationItem-RL-SetupRspTDD768,
id-TDD768-minimumSpreadingFactor-UL,
id-TDD768-minimumSpreadingFactor-DL,
id-TDD768-maxNrDLPhysicalchannels,
id-TDD768-maxNrDLPhysicalchannelsTS,
id-RL-InformationResponse-RL-AdditionRspTDD768,
id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD768,
id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD768,
id-UL-DPCH-InformationItem-RL-AdditionRspTDD768,
id-DL-DPCH-InformationItem-RL-AdditionRspTDD768,
id-UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD768,
id-UL-Timeslot-InformationModifyList-RL-ReconfReadyTDD768,
id-DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD768,
id-DL-Timeslot-InformationModifyList-RL-ReconfReadyTDD768,
id-secondary-CCPCH-Info-RL-ReconfReadyTDD768,
id-HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD768,
id-UL-Timeslot-InformationList-PhyChReconfRqstTDD768,
id-DL-Timeslot-InformationList-PhyChReconfRqstTDD768,
id-multiple-DedicatedMeasurementValueList-TDD768-DM-Rsp,
id-UEMeasurementTimeslotInfo768,
id-DL-DPCH-InformationDeleteList768-RL-ReconfReadyTDD,
id-DPCH-ID768-DM-Rsp,
id-DPCH-ID768-DM-Rqst,
id-DPCH-ID768-DM-Rprt,
id-RxTimingDeviationForTAext,
id-RxTimingDeviationForTA768,
id-E-DCH-Information,
id-E-DCH-Information-Reconfig,
id-E-DCH-Serving-RL-ID,
id-E-DCH-Information-Response,
id-E-DCH-768-Information,
id-E-DCH-768-Information-Reconfig,
id-E-DCH-768-Information-Response,
id-E-DCH-LCR-Information,
id-E-DCH-LCR-Information-Reconfig,
id-E-DCH-LCR-Information-Response,
id-PowerControlGAP,
id-UARFCNforNt,
id-HS-SICH-ID-Extension,
id-HSSICH-Info-DM-Rqst-Extension,
id-UPPCHPositionLCR
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```
       FROM RNSAP-Constants;

-- **************************************************************
--
-- RADIO LINK SETUP REQUEST FDD
--
-- **************************************************************

RadioLinkSetupRequestFDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkSetupRequestFDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkSetupRequestFDD-Extensions}}                OPTIONAL,
    ...
}

RadioLinkSetupRequestFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-SRNC-ID                    CRITICALITY reject  TYPE RNC-ID                        PRESENCE mandatory} |
    { ID id-S-RNTI                     CRITICALITY reject  TYPE S-RNTI                        PRESENCE mandatory } |
    { ID id-D-RNTI                     CRITICALITY reject  TYPE D-RNTI              PRESENCE optional   } |
    { ID id-AllowedQueuingTime         CRITICALITY reject  TYPE AllowedQueuingTime          PRESENCE optional   } |
    { ID id-UL-DPCH-Information-RL-SetupRqstFDD CRITICALITY reject  TYPE UL-DPCH-Information-RL-SetupRqstFDD    PRESENCE mandatory   } |
    { ID id-DL-DPCH-Information-RL-SetupRqstFDD CRITICALITY reject  TYPE DL-DPCH-Information-RL-SetupRqstFDD    PRESENCE optional } |
    { ID id-DCH-FDD-Information         CRITICALITY reject  TYPE DCH-FDD-Information          PRESENCE mandatory } |
    { ID id-RL-Information-RL-SetupRqstFDD     CRITICALITY notify  TYPE RL-InformationList-RL-SetupRqstFDD     PRESENCE mandatory   }|
    { ID id-Transmission-Gap-Pattern-Sequence-Information      CRITICALITY reject  TYPE Transmission-Gap-Pattern-Sequence-Information   PRESENCE
    optional } |
    { ID id-Active-Pattern-Sequence-Information CRITICALITY reject  TYPE Active-Pattern-Sequence-Information  PRESENCE optional },
    ...
}

UL-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
    ul-ScramblingCode               UL-ScramblingCode,
    minUL-ChannelisationCodeLength        MinUL-ChannelisationCodeLength,
    maxNrOfUL-DPCHs                 MaxNrOfUL-DPCHs        OPTIONAL
    -- This IE shall be present if minUL-ChannelisationCodeLength equals to 4 -- ,
    ul-PunctureLimit                PunctureLimit,
    ul-TFCS                         TFCS,
    ul-DPCCH-SlotFormat             UL-DPCCH-SlotFormat,
    ul-SIRTarget                    UL-SIR            OPTIONAL,
    diversityMode                   DiversityMode,
    not-Used-sSDT-CellIdLength      NULL             OPTIONAL,
    not-Used-s-FieldLength          NULL             OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-Information-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-Information-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DPC-Mode                 CRITICALITY reject       EXTENSION DPC-Mode               PRESENCE optional }|
    { ID id-UL-DPDCHIndicatorEDCH    CRITICALITY reject       EXTENSION UL-DPDCHIndicatorEDCH PRESENCE optional },
    ...
}

DL-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
```

```
    tFCS                             TFCS,
    dl-DPCH-SlotFormat               DL-DPCH-SlotFormat,
    nrOfDLchannelisationcodes        NrOfDLchannelisationcodes,
    tFCI-SignallingMode              TFCI-SignallingMode,
    tFCI-Presence                    TFCI-Presence         OPTIONAL
    -- This IE shall be present if DL DPCH Slot Format IE is equal to any of the values from 12 to 16 --,
    multiplexingPosition             MultiplexingPosition,
    powerOffsetInformation           PowerOffsetInformation-RL-SetupRqstFDD,
    fdd-dl-TPC-DownlinkStepSize       FDD-TPC-DownlinkStepSize,
    limitedPowerIncrease             LimitedPowerIncrease,
    innerLoopDLPCStatus              InnerLoopDLPCStatus,
    iE-Extensions                    ProtocolExtensionContainer { {DL-DPCH-Information-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-Information-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

PowerOffsetInformation-RL-SetupRqstFDD ::= SEQUENCE {
       po1-ForTFCI-Bits               PowerOffset,
       po2-ForTPC-Bits                PowerOffset,
       po3-ForPilotBits               PowerOffset,
       iE-Extensions                  ProtocolExtensionContainer { { PowerOffsetInformation-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
       ...
}

PowerOffsetInformation-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-SetupRqstFDD            ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationItemIEs-RL-
SetupRqstFDD} }

RL-InformationItemIEs-RL-SetupRqstFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-RL-SetupRqstFDD  CRITICALITY notify  TYPE RL-InformationItem-RL-SetupRqstFDD     PRESENCE mandatory   }
}

RL-InformationItem-RL-SetupRqstFDD ::= SEQUENCE {
    rL-ID                        RL-ID,
    c-ID                         C-ID,
    firstRLS-indicator           FirstRLS-Indicator,
    frameOffset                  FrameOffset,
    chipOffset                   ChipOffset,
    propagationDelay             PropagationDelay        OPTIONAL,
    diversityControlField        DiversityControlField      OPTIONAL
    -- This IE shall be present if the RL is not the first one in the RL-InformationList-RL-SetupRqstFDD --,
    dl-InitialTX-Power           DL-Power            OPTIONAL,
    primaryCPICH-EcNo            PrimaryCPICH-EcNo          OPTIONAL,
    not-Used-sSDT-CellID         NULL           OPTIONAL,
    transmitDiversityIndicator   TransmitDiversityIndicator     OPTIONAL,
    -- This IE shall be present unless Diversity Mode IE in UL DPCH Information group is "none"
    iE-Extensions                ProtocolExtensionContainer { {RL-InformationItem-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
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}

RL-InformationItem-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Enhanced-PrimaryCPICH-EcNo  CRITICALITY ignore  EXTENSION Enhanced-PrimaryCPICH-EcNo  PRESENCE optional }|
    { ID id-RL-Specific-DCH-Info        CRITICALITY ignore  EXTENSION RL-Specific-DCH-Info        PRESENCE optional }|
    { ID id-DelayedActivation           CRITICALITY reject  EXTENSION DelayedActivation           PRESENCE optional }|
    { ID id-CellPortionID               CRITICALITY ignore  EXTENSION CellPortionID               PRESENCE optional }|
    { ID id-RL-Specific-EDCH-Information          CRITICALITY reject     EXTENSION RL-Specific-EDCH-Information      PRESENCE optional }|
    { ID id-EDCH-RL-Indication                    CRITICALITY reject     EXTENSION EDCH-RL-Indication               PRESENCE optional }|
    { ID id-ExtendedPropagationDelay    CRITICALITY ignore  EXTENSION ExtendedPropagationDelay    PRESENCE optional }|
    { ID id-SynchronisationIndicator              CRITICALITY reject     EXTENSION SynchronisationIndicator         PRESENCE optional},
    ...
}

RadioLinkSetupRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Permanent-NAS-UE-Identity                     CRITICALITY ignore  EXTENSION Permanent-NAS-UE-Identity            PRESENCE optional }|
    { ID id-DL-PowerBalancing-Information                 CRITICALITY ignore  EXTENSION DL-PowerBalancing-Information        PRESENCE optional}|
    { ID id-HSDSCH-FDD-Information                        CRITICALITY reject  EXTENSION HSDSCH-FDD-Information               PRESENCE optional }|
    { ID id-HSPDSCH-RL-ID                                 CRITICALITY reject  EXTENSION RL-ID                                PRESENCE conditional
}|
    -- This IE shall be present if HS-DSCH Information IE is present.
    { ID id-MBMS-Bearer-Service-List                      CRITICALITY notify  EXTENSION MBMS-Bearer-Service-List            PRESENCE optional }|
    { ID id-EDPCH-Information                              CRITICALITY reject     EXTENSION EDPCH-Information-FDD            PRESENCE optional }|
    { ID id-EDCH-FDD-Information                           CRITICALITY reject     EXTENSION EDCH-FDD-Information             PRESENCE conditional }|
    -- This IE is present if E-DPCH Information IE is present.
    { ID id-Serving-EDCHRL-Id                             CRITICALITY reject     EXTENSION EDCH-Serving-RL
    PRESENCE optional }|
    -- This IE is present if E-DCHInformation IE is present.
    { ID id-F-DPCH-Information-RL-SetupRqstFDD            CRITICALITY reject  EXTENSION F-DPCH-Information-RL-SetupRqstFDD
    PRESENCE optional }|
    { ID id-Initial-DL-DPCH-TimingAdjustment-Allowed     CRITICALITY ignore  EXTENSION Initial-DL-DPCH-TimingAdjustment-Allowed
    PRESENCE optional }|
    { ID id-DCH-Indicator-For-E-DCH-HSDPA-Operation      CRITICALITY reject  EXTENSION DCH-Indicator-For-E-DCH-HSDPA-Operation
          PRESENCE optional }|
    { ID id-Serving-cell-change-CFN                       CRITICALITY reject  EXTENSION CFN
                    PRESENCE optional }|
    { ID id-Continuous-Packet-Connectivity-DTX-DRX-Information         CRITICALITY reject  EXTENSION Continuous-Packet-Connectivity-DTX-DRX-
Information                                   PRESENCE optional }|
    { ID id-Continuous-Packet-Connectivity-HS-SCCH-Less-Information    CRITICALITY reject  EXTENSION Continuous-Packet-Connectivity-HS-SCCH-Less-
Information                                   PRESENCE optional }|
    { ID id-Extended-SRNC-ID                             CRITICALITY reject  EXTENSION Extended-RNC-ID
      PRESENCE optional },
    ...
}


F-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
    powerOffsetInformation          PowerOffsetInformation-F-DPCH-RL-SetupRqstFDD,
    fdd-dl-TPC-DownlinkStepSize      FDD-TPC-DownlinkStepSize,
    limitedPowerIncrease             LimitedPowerIncrease,
    innerLoopDLPCStatus              InnerLoopDLPCStatus,
    iE-Extensions                    ProtocolExtensionContainer { { F-DPCH-Information-RL-SetupRqstFDD-ExtIEs} }          OPTIONAL,
    ...
}
```

```
F-DPCH-Information-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-F-DPCH-SlotFormatSupportRequest    CRITICALITY reject         EXTENSION F-DPCH-SlotFormatSupportRequest    PRESENCE optional }|
    { ID id-F-DPCH-SlotFormat                  CRITICALITY ignore  EXTENSION F-DPCH-SlotFormat    PRESENCE optional},
    ...
}

PowerOffsetInformation-F-DPCH-RL-SetupRqstFDD ::= SEQUENCE {
    po2-ForTPC-Bits                 PowerOffset,
    --This IE shall be ignored by DRNS
    iE-Extensions                   ProtocolExtensionContainer { { PowerOffsetInformation-F-DPCH-RL-SetupRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

PowerOffsetInformation-F-DPCH-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK SETUP REQUEST TDD
--
-- **************************************************************

RadioLinkSetupRequestTDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container      {{RadioLinkSetupRequestTDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkSetupRequestTDD-Extensions}}                          OPTIONAL,
    ...
}

RadioLinkSetupRequestTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-SRNC-ID                                            CRITICALITY reject  TYPE RNC-ID                                          PRESENCE mandatory} |
    { ID id-S-RNTI                                             CRITICALITY reject  TYPE S-RNTI                                          PRESENCE mandatory} |
    { ID id-D-RNTI                                             CRITICALITY reject  TYPE D-RNTI                                          PRESENCE optional } |
    { ID id-UL-Physical-Channel-Information-RL-SetupRqstTDD CRITICALITY reject  TYPE UL-Physical-Channel-Information-RL-SetupRqstTDD    PRESENCE
mandatory   } |
    { ID id-DL-Physical-Channel-Information-RL-SetupRqstTDD CRITICALITY reject  TYPE DL-Physical-Channel-Information-RL-SetupRqstTDD    PRESENCE
mandatory   } |
    { ID id-AllowedQueuingTime                                CRITICALITY reject  TYPE AllowedQueuingTime                            PRESENCE optional } |
    { ID id-UL-CCTrCH-InformationList-RL-SetupRqstTDD    CRITICALITY notify  TYPE UL-CCTrCH-InformationList-RL-SetupRqstTDD  PRESENCE optional } |
    { ID id-DL-CCTrCH-InformationList-RL-SetupRqstTDD    CRITICALITY notify  TYPE DL-CCTrCH-InformationList-RL-SetupRqstTDD  PRESENCE optional } |
    { ID id-DCH-TDD-Information         CRITICALITY reject  TYPE DCH-TDD-Information            PRESENCE optional   } |
    { ID id-DSCH-TDD-Information        CRITICALITY reject  TYPE DSCH-TDD-Information           PRESENCE optional   } |
    { ID id-USCH-Information         CRITICALITY reject  TYPE USCH-Information          PRESENCE optional   } |
    { ID id-RL-Information-RL-SetupRqstTDD                     CRITICALITY reject  TYPE RL-Information-RL-SetupRqstTDD                     PRESENCE mandatory},
    ...
}

UL-Physical-Channel-Information-RL-SetupRqstTDD ::= SEQUENCE {
    maxNrTimeslots-UL              MaxNrTimeslots,
    minimumSpreadingFactor-UL      MinimumSpreadingFactor,
    maxNrULPhysicalchannels        MaxNrULPhysicalchannels,
    iE-Extensions                  ProtocolExtensionContainer { {UL-Physical-Channel-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
    ...
```

```
}

UL-Physical-Channel-InformationItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TDD-Support-8PSK          CRITICALITY ignore      EXTENSION Support-8PSK      PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-TDD768-minimumSpreadingFactor-UL      CRITICALITY ignore        EXTENSION MinimumSpreadingFactor768   PRESENCE optional },
    ...
}

DL-Physical-Channel-Information-RL-SetupRqstTDD ::= SEQUENCE {
    maxNrTimeslots-DL            MaxNrTimeslots,
    minimumSpreadingFactor-DL        MinimumSpreadingFactor,
    maxNrDLPhysicalchannels        MaxNrDLPhysicalchannels,
    iE-Extensions            ProtocolExtensionContainer { {DL-Physical-Channel-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-Physical-Channel-InformationItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TDD-maxNrDLPhysicalchannels            CRITICALITY ignore          EXTENSION MaxNrDLPhysicalchannelsTS        PRESENCE optional }|
    { ID id-TDD-Support-8PSK                CRITICALITY ignore          EXTENSION Support-8PSK            PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-TDD-Support-PLCCH                CRITICALITY ignore          EXTENSION Support-PLCCH            PRESENCE optional }|
    { ID id-TDD768-minimumSpreadingFactor-DL        CRITICALITY ignore          EXTENSION MinimumSpreadingFactor768        PRESENCE optional }|
    { ID id-TDD768-maxNrDLPhysicalchannels        CRITICALITY ignore          EXTENSION MaxNrDLPhysicalchannels768        PRESENCE optional }|
    { ID id-TDD768-maxNrDLPhysicalchannelsTS        CRITICALITY ignore          EXTENSION MaxNrDLPhysicalchannelsTS768        PRESENCE optional },
    ...
}

UL-CCTrCH-InformationList-RL-SetupRqstTDD            ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
InformationItemIEs-RL-SetupRqstTDD} }

UL-CCTrCH-InformationItemIEs-RL-SetupRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD   CRITICALITY notify  TYPE UL-CCTrCH-InformationItem-RL-SetupRqstTDD  PRESENCE mandatory   }
}

UL-CCTrCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
    cCTrCH-ID            CCTrCH-ID,
    ul-TFCS            TFCS,
    tFCI-Coding            TFCI-Coding,
    ul-PunctureLimit            PunctureLimit,
    iE-Extensions            ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD    CRITICALITY reject      EXTENSION   TDD-TPC-UplinkStepSize-LCR      PRESENCE optional },
    -- Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD or 7.68Mcps TDD
    ...
}

DL-CCTrCH-InformationList-RL-SetupRqstTDD            ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
InformationItemIEs-RL-SetupRqstTDD} }

DL-CCTrCH-InformationItemIEs-RL-SetupRqstTDD RNSAP-PROTOCOL-IES ::= {
```

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    { ID id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD   CRITICALITY notify  TYPE DL-CCTrCH-InformationItem-RL-SetupRqstTDD   PRESENCE mandatory    }
}

DL-CCTrCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
    cCTrCH-ID                 CCTrCH-ID,
    dl-TFCS                   TFCS,
    tFCI-Coding               TFCI-Coding,
    dl-PunctureLimit          PunctureLimit,
    tdd-TPC-DownlinkStepSize   TDD-TPC-DownlinkStepSize,
    cCTrCH-TPCList            CCTrCH-TPCList-RL-SetupRqstTDD  OPTIONAL,
    iE-Extensions             ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CCTrCH-TPCList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCItem-RL-SetupRqstTDD

CCTrCH-TPCItem-RL-SetupRqstTDD   ::= SEQUENCE {
    cCTrCH-ID                 CCTrCH-ID,
    iE-Extensions             ProtocolExtensionContainer { { CCTrCH-TPCItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

CCTrCH-TPCItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Information-RL-SetupRqstTDD ::= SEQUENCE {
    rL-ID                     RL-ID,
    c-ID                      C-ID,
    frameOffset               FrameOffset,
    specialBurstScheduling    SpecialBurstScheduling,
    primaryCCPCH-RSCP         PrimaryCCPCH-RSCP      OPTIONAL,
    dL-TimeSlot-ISCP          DL-TimeSlot-ISCP-Info  OPTIONAL,
    --for 3.84Mcps TDD and 7.68Mcps TDD only
    iE-Extensions             ProtocolExtensionContainer { {RL-Information-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-Timeslot-ISCP-LCR-Information-RL-SetupRqstTDD   CRITICALITY reject     EXTENSION   DL-TimeSlot-ISCP-LCR-Information PRESENCE
optional   }|
    { ID id-TSTD-Support-Indicator-RL-SetupRqstTDD             CRITICALITY ignore     EXTENSION   TSTD-Support-Indicator       PRESENCE
optional   }|
    --for 1.28Mcps TDD only
    { ID id-RL-Specific-DCH-Info   CRITICALITY ignore   EXTENSION   RL-Specific-DCH-Info   PRESENCE   optional }|
    { ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional }|
    { ID id-UL-Synchronisation-Parameters-LCR                 CRITICALITY reject     EXTENSION   UL-Synchronisation-Parameters-LCR    PRESENCE
    optional   }|  -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
    { ID id-PrimaryCCPCH-RSCP-Delta   CRITICALITY ignore     EXTENSION   PrimaryCCPCH-RSCP-Delta   PRESENCE   optional },
    ...
```

```
}

RadioLinkSetupRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Permanent-NAS-UE-Identity            CRITICALITY ignore        EXTENSION Permanent-NAS-UE-Identity   PRESENCE optional }|
    { ID id-HSDSCH-TDD-Information                CRITICALITY reject        EXTENSION HSDSCH-TDD-Information   PRESENCE optional }|
    { ID id-HSPDSCH-RL-ID                         CRITICALITY reject        EXTENSION RL-ID                          PRESENCE conditional }|
    -- This IE shall be present if HS-DSCH Information IE is present.
    { ID id-PDSCH-RL-ID              CRITICALITY ignore        EXTENSION RL-ID     PRESENCE optional }|
    { ID id-MBMS-Bearer-Service-List          CRITICALITY notify   EXTENSION MBMS-Bearer-Service-List        PRESENCE optional}|
    { ID id-E-DCH-Information                  CRITICALITY reject      EXTENSION E-DCH-Information PRESENCE optional       }|
    { ID id-E-DCH-Serving-RL-ID               CRITICALITY reject      EXTENSION RL-ID               PRESENCE optional       }|
    { ID id-E-DCH-768-Information              CRITICALITY reject      EXTENSION E-DCH-768-Information PRESENCE optional }|
    { ID id-E-DCH-LCR-Information              CRITICALITY reject      EXTENSION E-DCH-LCR-Information PRESENCE optional }|
    { ID id-Extended-SRNC-ID                            CRITICALITY reject  EXTENSION Extended-RNC-ID
      PRESENCE optional },
    ...
}

-- **************************************************************
--
-- RADIO LINK SETUP RESPONSE FDD
--
-- **************************************************************

RadioLinkSetupResponseFDD ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container       {{RadioLinkSetupResponseFDD-IEs}},
    protocolExtensions          ProtocolExtensionContainer {{RadioLinkSetupResponseFDD-Extensions}}                        OPTIONAL,
    ...
}

RadioLinkSetupResponseFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-D-RNTI                             CRITICALITY ignore  TYPE D-RNTI                        PRESENCE optional  } |
    { ID id-CN-PS-DomainIdentifier             CRITICALITY ignore  TYPE CN-PS-DomainIdentifier        PRESENCE optional } |
    { ID id-CN-CS-DomainIdentifier             CRITICALITY ignore  TYPE CN-CS-DomainIdentifier        PRESENCE optional } |
    { ID id-RL-InformationResponseList-RL-SetupRspFDD   CRITICALITY ignore  TYPE RL-InformationResponseList-RL-SetupRspFDD  PRESENCE mandatory   }
|
    { ID id-UL-SIRTarget                       CRITICALITY ignore  TYPE UL-SIR                      PRESENCE optional } |
    { ID id-CriticalityDiagnostics             CRITICALITY ignore  TYPE CriticalityDiagnostics       PRESENCE optional },
    ...
}

RL-InformationResponseList-RL-SetupRspFDD        ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-
InformationResponseItemIEs-RL-SetupRspFDD} }

RL-InformationResponseItemIEs-RL-SetupRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseItem-RL-SetupRspFDD  CRITICALITY ignore  TYPE RL-InformationResponseItem-RL-SetupRspFDD  PRESENCE mandatory   }
}

RL-InformationResponseItem-RL-SetupRspFDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    rL-Set-ID                   RL-Set-ID,
    uRA-Information             URA-Information     OPTIONAL,
    sAI                         SAI,
    gA-Cell                     GA-Cell     OPTIONAL,
```

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    gA-AccessPointPosition          GA-AccessPointPosition      OPTIONAL,
    received-total-wide-band-power  Received-total-wide-band-power,
    not-Used-secondary-CCPCH-Info              NULL         OPTIONAL,
    dl-CodeInformation              FDD-DL-CodeInformation,
    diversityIndication             DiversityIndication-RL-SetupRspFDD,

    sSDT-SupportIndicator           SSDT-SupportIndicator,
    maxUL-SIR                       UL-SIR,
    minUL-SIR                       UL-SIR,
    closedlooptimingadjustmentmode  Closedlooptimingadjustmentmode          OPTIONAL,
    maximumAllowedULTxPower          MaximumAllowedULTxPower,
    maximumDLTxPower                DL-Power,
    minimumDLTxPower                DL-Power,
    primaryScramblingCode           PrimaryScramblingCode               OPTIONAL,
    uL-UARFCN                       UARFCN                              OPTIONAL,
    dL-UARFCN                       UARFCN                              OPTIONAL,
    primaryCPICH-Power              PrimaryCPICH-Power,
    not-Used-dSCHInformationResponse   NULL                             OPTIONAL,
    neighbouring-UMTS-CellInformation    Neighbouring-UMTS-CellInformation   OPTIONAL,
    neighbouring-GSM-CellInformation     Neighbouring-GSM-CellInformation    OPTIONAL,
    pC-Preamble                     PC-Preamble,
    sRB-Delay                       SRB-Delay,
    iE-Extensions                   ProtocolExtensionContainer { {RL-InformationResponseItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationResponseItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes                    CRITICALITY ignore  EXTENSION GA-CellAdditionalShapes                    PRESENCE optional
}|
    { ID id-DL-PowerBalancing-ActivationIndicator      CRITICALITY ignore  EXTENSION DL-PowerBalancing-ActivationIndicator      PRESENCE optional
}|
    { ID id-HCS-Prio                                   CRITICALITY ignore  EXTENSION HCS-Prio                                   PRESENCE optional
}|
    { ID id-Primary-CPICH-Usage-For-Channel-Estimation CRITICALITY ignore  EXTENSION Primary-CPICH-Usage-For-Channel-Estimation PRESENCE
optional }|
    { ID id-Secondary-CPICH-Information                CRITICALITY ignore  EXTENSION Secondary-CPICH-Information                PRESENCE
optional }|
    { ID id-Active-MBMS-Bearer-ServiceFDD-PFL             CRITICALITY ignore  EXTENSION Active-MBMS-Bearer-Service-ListFDD-PFL PRESENCE
optional }|
    { ID id-EDCH-RLSet-Id                              CRITICALITY ignore  EXTENSION RL-Set-ID                                 PRESENCE
optional }|
    { ID id-EDCH-FDD-DL-ControlChannelInformation      CRITICALITY ignore  EXTENSION EDCH-FDD-DL-ControlChannelInformation     PRESENCE
optional }|
    { ID id-Initial-DL-DPCH-TimingAdjustment           CRITICALITY ignore  EXTENSION DL-DPCH-TimingAdjustment                  PRESENCE optional
}|
    { ID id-F-DPCH-SlotFormat                          CRITICALITY ignore  EXTENSION F-DPCH-SlotFormat
    PRESENCE optional }|
    { ID id-FrameOffset                                CRITICALITY ignore  EXTENSION FrameOffset                               PRESENCE optional
}|
    { ID id-ChipOffset                                 CRITICALITY ignore  EXTENSION ChipOffset                                PRESENCE optional
},
    ...
}
```

```
DiversityIndication-RL-SetupRspFDD ::= CHOICE {
    combining                       Combining-RL-SetupRspFDD,
    nonCombiningOrFirstRL           NonCombiningOrFirstRL-RL-SetupRspFDD
}

Combining-RL-SetupRspFDD ::= SEQUENCE {
    rL-ID                           RL-ID,
    iE-Extensions                   ProtocolExtensionContainer { { CombiningItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
    ...
}

CombiningItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DCH-InformationResponse          CRITICALITY ignore  EXTENSION DCH-InformationResponse      PRESENCE optional }|
    { ID id-EDCH-FDD-InformationResponse     CRITICALITY ignore  EXTENSION EDCH-FDD-InformationResponse      PRESENCE optional },
    ...
}

NonCombiningOrFirstRL-RL-SetupRspFDD ::= SEQUENCE {
    dCH-InformationResponse    DCH-InformationResponse,
    iE-Extensions                   ProtocolExtensionContainer { { NonCombiningOrFirstRLItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
    ...
}

NonCombiningOrFirstRLItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-EDCH-FDD-InformationResponse     CRITICALITY ignore  EXTENSION EDCH-FDD-InformationResponse      PRESENCE optional},
    ...
}

RadioLinkSetupResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCH-RNTI                            CRITICALITY ignore      EXTENSION HSDSCH-RNTI                            PRESENCE optional }|
    { ID id-HSDSCH-FDD-Information-Response    CRITICALITY ignore      EXTENSION HSDSCH-FDD-Information-Response     PRESENCE optional }|
    { ID id-Continuous-Packet-Connectivity-HS-SCCH-Less-Information-Response       CRITICALITY ignore     EXTENSION Continuous-Packet-Connectivity-
HS-SCCH-Less-Information-Response       PRESENCE optional }|
    { ID id-SixtyfourQAM-DL-SupportIndicator   CRITICALITY ignore      EXTENSION SixtyfourQAM-DL-SupportIndicator   PRESENCE optional },
    ...
}

-- ****************************************************************
--
-- RADIO LINK SETUP RESPONSE TDD
--
-- ****************************************************************

RadioLinkSetupResponseTDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container        {{RadioLinkSetupResponseTDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkSetupResponseTDD-Extensions}}                    OPTIONAL,
    ...
}

RadioLinkSetupResponseTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-D-RNTI                   CRITICALITY ignore  TYPE D-RNTI                              PRESENCE optional } |
    { ID id-CN-PS-DomainIdentifier          CRITICALITY ignore  TYPE CN-PS-DomainIdentifier          PRESENCE optional } |
    { ID id-CN-CS-DomainIdentifier          CRITICALITY ignore  TYPE CN-CS-DomainIdentifier          PRESENCE optional } |
    { ID id-RL-InformationResponse-RL-SetupRspTDD   CRITICALITY ignore  TYPE RL-InformationResponse-RL-SetupRspTDD PRESENCE optional } |
```

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    --Mandatory for 3.84Mcps TDD only
    { ID id-UL-SIRTarget                 CRITICALITY ignore  TYPE UL-SIR                    PRESENCE mandatory } |
    { ID id-CriticalityDiagnostics       CRITICALITY ignore  TYPE CriticalityDiagnostics     PRESENCE optional },
    ...
}

RL-InformationResponse-RL-SetupRspTDD ::= SEQUENCE {
    rL-ID                     RL-ID,
    uRA-Information           URA-Information     OPTIONAL,
    sAI                       SAI,
    gA-Cell                   GA-Cell      OPTIONAL,
    gA-AccessPointPosition     GA-AccessPointPosition  OPTIONAL,
    ul-TimeSlot-ISCP-Info     UL-TimeSlot-ISCP-Info,
    maxUL-SIR                 UL-SIR,
    minUL-SIR                 UL-SIR,
    maximumAllowedULTxPower    MaximumAllowedULTxPower,
    maximumDLTxPower          DL-Power,
    minimumDLTxPower          DL-Power,
    uARFCNforNt               UARFCN              OPTIONAL,
    cellParameterID           CellParameterID     OPTIONAL,
    syncCase                  SyncCase            OPTIONAL,
    sCH-TimeSlot              SCH-TimeSlot        OPTIONAL,
    -- This IE shall be present if Sync Case IE is equal to "Case2". --
    sCTD-Indicator            SCTD-Indicator  OPTIONAL,
    pCCPCH-Power              PCCPCH-Power,
    timingAdvanceApplied      TimingAdvanceApplied,
    alphaValue                AlphaValue,
    ul-PhysCH-SF-Variation    UL-PhysCH-SF-Variation,
    synchronisationConfiguration     SynchronisationConfiguration,
    secondary-CCPCH-Info-TDD         Secondary-CCPCH-Info-TDD    OPTIONAL,
    ul-CCTrCHInformation             UL-CCTrCHInformationList-RL-SetupRspTDD    OPTIONAL,
    dl-CCTrCHInformation             DL-CCTrCHInformationList-RL-SetupRspTDD    OPTIONAL,
    dCH-InformationResponse          DCH-InformationResponseList-RL-SetupRspTDD  OPTIONAL,
    dsch-InformationResponse         DSCH-InformationResponse-RL-SetupRspTDD OPTIONAL,
    usch-InformationResponse         USCH-InformationResponse-RL-SetupRspTDD OPTIONAL,
    neighbouring-UMTS-CellInformation        Neighbouring-UMTS-CellInformation OPTIONAL,
    neighbouring-GSM-CellInformation         Neighbouring-GSM-CellInformation OPTIONAL,
    iE-Extensions             ProtocolExtensionContainer { {RL-InformationResponse-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationResponse-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes       CRITICALITY ignore  EXTENSION  GA-CellAdditionalShapes    PRESENCE optional }|
    { ID id-HCS-Prio            CRITICALITY ignore  EXTENSION  HCS-Prio        PRESENCE optional }|
    { ID id-TimeSlot-RL-SetupRspTDD    CRITICALITY ignore  EXTENSION  TimeSlot    PRESENCE conditional  },
    -- This IE shall be present if Sync Case IE is Case1. --
    ...
}

UL-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{UL-CCTrCHInformationListIEs-RL-SetupRspTDD}}

UL-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD   CRITICALITY ignore TYPE UL-CCTrCHInformationListIE-RL-SetupRspTDD     PRESENCE mandatory }
}
```

```
UL-CCTrCHInformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCHInformationItem-RL-SetupRspTDD

UL-CCTrCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
    cCTrCH-ID                    CCTrCH-ID,
    ul-DPCH-Information           UL-DPCH-InformationList-RL-SetupRspTDD    OPTIONAL,
    iE-Extensions                 ProtocolExtensionContainer { {UL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-UL-SIR-Target-CCTrCH-InformationItem-RL-SetupRspTDD    CRITICALITY ignore    EXTENSION UL-SIR    PRESENCE optional},
    ...
}

UL-DPCH-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-InformationListIEs-RL-SetupRspTDD} }

UL-DPCH-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationItem-RL-SetupRspTDD    CRITICALITY ignore  TYPE UL-DPCH-InformationItem-RL-SetupRspTDD  PRESENCE mandatory}
}


UL-DPCH-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    repetitionPeriod              RepetitionPeriod,
    repetitionLength              RepetitionLength,
    tDD-DPCHOffset                TDD-DPCHOffset,
    uL-Timeslot-Information        UL-Timeslot-Information,
    iE-Extensions                 ProtocolExtensionContainer { {UL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DL-CCTrCHInformationListIEs-RL-SetupRspTDD}}

DL-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD    CRITICALITY ignore TYPE DL-CCTrCHInformationListIE-RL-SetupRspTDD  PRESENCE mandatory }
}

DL-CCTrCHInformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCHInformationItem-RL-SetupRspTDD

DL-CCTrCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
    cCTrCH-ID                    CCTrCH-ID,
    dl-DPCH-Information           DL-DPCH-InformationList-RL-SetupRspTDD    OPTIONAL,
    iE-Extensions                 ProtocolExtensionContainer { {DL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-CCTrCH-Maximum-DL-Power-RL-SetupRspTDD    CRITICALITY ignore    EXTENSION  DL-Power   PRESENCE optional }| -- this is a DCH type
CCTrCH power
```

```
    { ID id-CCTrCH-Minimum-DL-Power-RL-SetupRspTDD       CRITICALITY ignore      EXTENSION  DL-Power    PRESENCE optional }, -- this is a DCH type
CCTrCH power
    ...
}

DL-DPCH-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-InformationListIEs-RL-SetupRspTDD} }

DL-DPCH-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationItem-RL-SetupRspTDD       CRITICALITY ignore  TYPE DL-DPCH-InformationItem-RL-SetupRspTDD  PRESENCE mandatory}
}

DL-DPCH-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    dL-Timeslot-Information         DL-Timeslot-Information,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationResponseList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DCH-InformationResponseListIEs-RL-SetupRspTDD}}

DCH-InformationResponseListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponse   CRITICALITY ignore    TYPE DCH-InformationResponse  PRESENCE mandatory }
}

DSCH-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DSCH-InformationList-RL-SetupRspTDD}}

DSCH-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationListIEs-RL-SetupRspTDD       CRITICALITY ignore  TYPE DSCH-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory }
}

DSCH-InformationListIEs-RL-SetupRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCHInformationItem-RL-SetupRspTDD

DSCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
    dsch-ID                 DSCH-ID,
    dSCH-FlowControlInformation     DSCH-FlowControlInformation,
    bindingID               BindingID   OPTIONAL,
    transportLayerAddress   TransportLayerAddress   OPTIONAL,
    transportFormatManagement   TransportFormatManagement,
    iE-Extensions           ProtocolExtensionContainer { {DSCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DSCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

USCH-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{USCH-InformationList-RL-SetupRspTDD}}
```

```
USCH-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-InformationListIEs-RL-SetupRspTDD    CRITICALITY ignore  TYPE USCH-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory }
}

USCH-InformationListIEs-RL-SetupRspTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCHInformationItem-RL-SetupRspTDD

USCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
    usch-ID                   USCH-ID,
    bindingID                 BindingID  OPTIONAL,
    transportLayerAddress     TransportLayerAddress   OPTIONAL,
    transportFormatManagement TransportFormatManagement,
    iE-Extensions             ProtocolExtensionContainer { {USCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

USCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkSetupResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-LCR-InformationResponse-RL-SetupRspTDD   CRITICALITY ignore  EXTENSION   RL-LCR-InformationResponse-RL-SetupRspTDD    PRESENCE
optional}|
    --Mandatory for 1.28Mcps TDD only
    { ID id-HSDSCH-RNTI                                 CRITICALITY ignore      EXTENSION HSDSCH-RNTI                                 PRESENCE
optional }|
    { ID id-HSDSCH-TDD-Information-Response             CRITICALITY ignore      EXTENSION HSDSCH-TDD-Information-Response             PRESENCE
optional }|
    { ID id-DSCH-RNTI                                   CRITICALITY ignore      EXTENSION DSCH-RNTI                                   PRESENCE
optional }|
    { ID id-Active-MBMS-Bearer-ServiceTDD-PFL           CRITICALITY ignore      EXTENSION Active-MBMS-Bearer-Service-ListTDD-PFL      PRESENCE
optional }|
    { ID id-RL-InformationResponse-RL-SetupRspTDD768    CRITICALITY ignore      EXTENSION RL-InformationResponse-RL-SetupRspTDD768    PRESENCE
optional }|
    { ID id-E-DCH-Information-Response                  CRITICALITY ignore      EXTENSION E-DCH-Information-Response                  PRESENCE
optional    }|
    { ID id-E-DCH-768-Information-Response              CRITICALITY ignore      EXTENSION E-DCH-768-Information-Response              PRESENCE
optional    }|
    { ID id-E-DCH-LCR-Information-Response              CRITICALITY ignore      EXTENSION E-DCH-LCR-Information-Response              PRESENCE
optional    },
    ...
}

RL-LCR-InformationResponse-RL-SetupRspTDD ::= SEQUENCE {
    rL-ID                    RL-ID,
    uRA-Information          URA-Information,
    sAI                      SAI,
    gA-Cell                  GA-Cell     OPTIONAL,
    gA-AccessPointPosition   GA-AccessPointPosition  OPTIONAL,
    ul-TimeSlot-ISCP-LCR-Info  UL-TimeSlot-ISCP-LCR-Info,
    maxUL-SIR                UL-SIR,
    minUL-SIR                UL-SIR,
    maximumAllowedULTxPower   MaximumAllowedULTxPower,
    maximumDLTxPower         DL-Power,
    minimumDLTxPower         DL-Power,
```

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    uARFCNforNt                   UARFCN                  OPTIONAL,
    cellParameterID               CellParameterID         OPTIONAL,
    sCTD-Indicator      SCTD-Indicator  OPTIONAL,
    pCCPCH-Power                  PCCPCH-Power,
    alphaValue                    AlphaValue,
    ul-PhysCH-SF-Variation        UL-PhysCH-SF-Variation,
    synchronisationConfiguration            SynchronisationConfiguration,
    secondary-LCR-CCPCH-Info-TDD            Secondary-LCR-CCPCH-Info-TDD                OPTIONAL,
    ul-LCR-CCTrCHInformation                UL-LCR-CCTrCHInformationList-RL-SetupRspTDD     OPTIONAL,
    dl-LCR-CCTrCHInformation                DL-LCR-CCTrCHInformationList-RL-SetupRspTDD     OPTIONAL,
    dCH-InformationResponse                 DCH-InformationResponseList-RL-SetupRspTDD     OPTIONAL,
    dsch-LCR-InformationResponse            DSCH-LCR-InformationResponse-RL-SetupRspTDD    OPTIONAL,
    usch-LCR-InformationResponse            USCH-LCR-InformationResponse-RL-SetupRspTDD    OPTIONAL,
    neighbouring-UMTS-CellInformation       Neighbouring-UMTS-CellInformation           OPTIONAL,
    neighbouring-GSM-CellInformation        Neighbouring-GSM-CellInformation            OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { RL-LCR-InformationResponseList-RL-SetupRspTDD-ExtIEs} }   OPTIONAL,
    ...
}

RL-LCR-InformationResponseList-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes              CRITICALITY ignore  EXTENSION   GA-CellAdditionalShapes     PRESENCE optional }|
    { ID id-HCS-Prio                             CRITICALITY ignore  EXTENSION   HCS-Prio                    PRESENCE optional }|
    { ID id-UL-TimingAdvanceCtrl-LCR             CRITICALITY ignore  EXTENSION   UL-TimingAdvanceCtrl-LCR    PRESENCE optional }|
    --Mandatory for 1.28Mcps TDD only
    { ID id-PowerControlGAP                      CRITICALITY ignore  EXTENSION ControlGAP                    PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only
    ...
}

UL-LCR-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{UL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD}}

UL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD   CRITICALITY ignore TYPE UL-LCR-CCTrCHInformationListIE-RL-SetupRspTDD   PRESENCE
mandatory }
}

UL-LCR-CCTrCHInformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD

UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
    cCTrCH-ID              CCTrCH-ID,
    ul-DPCH-LCR-Information     UL-DPCH-LCR-InformationList-RL-SetupRspTDD     OPTIONAL,
    iE-Extensions              ProtocolExtensionContainer { {UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-UL-SIR-Target-CCTrCH-LCR-InformationItem-RL-SetupRspTDD     CRITICALITY ignore      EXTENSION UL-SIR   PRESENCE optional},
    ...
}

UL-DPCH-LCR-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD} }

UL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
```

```
    { ID id-UL-DPCH-LCR-InformationItem-RL-SetupRspTDD     CRITICALITY ignore  TYPE UL-DPCH-LCR-InformationItem-RL-SetupRspTDD  PRESENCE mandatory
    }
}

UL-DPCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    repetitionPeriod              RepetitionPeriod,
    repetitionLength              RepetitionLength,
    tDD-DPCHOffset                TDD-DPCHOffset,
    uL-TimeslotLCR-Information     UL-TimeslotLCR-Information,
    iE-Extensions                 ProtocolExtensionContainer { {UL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {

    ...
}
DL-LCR-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD}}

DL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD   CRITICALITY ignore TYPE DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD  PRESENCE
mandatory }
}

DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD

DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    cCTrCH-ID                 CCTrCH-ID,
    dl-DPCH-LCR-Information    DL-DPCH-LCR-InformationList-RL-SetupRspTDD      OPTIONAL,
    iE-Extensions             ProtocolExtensionContainer { {DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-LCR-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD} }

DL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-LCR-InformationItem-RL-SetupRspTDD     CRITICALITY ignore  TYPE DL-DPCH-LCR-InformationItem-RL-SetupRspTDD  PRESENCE mandatory
    }
}

DL-DPCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    repetitionPeriod              RepetitionPeriod,
    repetitionLength              RepetitionLength,
    tDD-DPCHOffset                TDD-DPCHOffset,
    dL-Timeslot-LCR-Information    DL-TimeslotLCR-Information,
    tSTD-Indicator                TSTD-Indicator,
    iE-Extensions                 ProtocolExtensionContainer { {DL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
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```
    ...
}

DSCH-LCR-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DSCH-LCR-InformationList-RL-SetupRspTDD}}

DSCH-LCR-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-LCR-InformationListIEs-RL-SetupRspTDD    CRITICALITY ignore  TYPE DSCH-LCR-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory
}
}

DSCH-LCR-InformationListIEs-RL-SetupRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHsLCR)) OF DSCH-LCR-InformationItem-RL-SetupRspTDD

DSCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    dsch-ID                 DSCH-ID,
    dSCH-FlowControlInformation     DSCH-FlowControlInformation,
    bindingID               BindingID   OPTIONAL,
    transportLayerAddress   TransportLayerAddress   OPTIONAL,
    transportFormatManagement   TransportFormatManagement,
    iE-Extensions           ProtocolExtensionContainer { {DSCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DSCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

USCH-LCR-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{USCH-LCR-InformationList-RL-SetupRspTDD}}

USCH-LCR-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-LCR-InformationListIEs-RL-SetupRspTDD    CRITICALITY ignore  TYPE USCH-LCR-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory
}
}

USCH-LCR-InformationListIEs-RL-SetupRspTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHsLCR)) OF USCH-LCR-InformationItem-RL-SetupRspTDD

USCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    usch-ID                 USCH-ID,
    bindingID               BindingID   OPTIONAL,
    transportLayerAddress   TransportLayerAddress   OPTIONAL,
    transportFormatManagement   TransportFormatManagement,
    iE-Extensions           ProtocolExtensionContainer { {USCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

USCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationResponse-RL-SetupRspTDD768 ::= SEQUENCE {
    rL-ID                   RL-ID,
    uRA-Information         URA-Information     OPTIONAL,
    sAI                     SAI,
    gA-Cell                 GA-Cell     OPTIONAL,
    gA-AccessPointPosition  GA-AccessPointPosition  OPTIONAL,
```

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   ul-TimeSlot-ISCP-Info        UL-TimeSlot-ISCP-Info,
   maxUL-SIR                    UL-SIR,
   minUL-SIR                    UL-SIR,
   maximumAllowedULTxPower      MaximumAllowedULTxPower,
   maximumDLTxPower             DL-Power,
   minimumDLTxPower             DL-Power,
   uARFCNforNt                  UARFCN              OPTIONAL,
   cellParameterID              CellParameterID     OPTIONAL,
   syncCase                     SyncCase            OPTIONAL,
   sCH-TimeSlot                 SCH-TimeSlot        OPTIONAL,
   -- This IE shall be present if Sync Case IE is equal to "Case2". --
   sCTD-Indicator               SCTD-Indicator  OPTIONAL,
   pCCPCH-Power                 PCCPCH-Power,
   timingAdvanceApplied         TimingAdvanceApplied,
   alphaValue                   AlphaValue,
   ul-PhysCH-SF-Variation       UL-PhysCH-SF-Variation,
   synchronisationConfiguration        SynchronisationConfiguration,
   secondary-CCPCH-Info-TDD768         Secondary-CCPCH-Info-TDD768      OPTIONAL,
   ul-CCTrCHInformation768             UL-CCTrCHInformationList-RL-SetupRspTDD768       OPTIONAL,
   dl-CCTrCHInformation768             DL-CCTrCHInformationList-RL-SetupRspTDD768       OPTIONAL,
   dCH-InformationResponse             DCH-InformationResponseList-RL-SetupRspTDD  OPTIONAL,
   dsch-InformationResponse            DSCH-InformationResponse-RL-SetupRspTDD OPTIONAL,
   usch-InformationResponse            USCH-InformationResponse-RL-SetupRspTDD OPTIONAL,
   neighbouring-UMTS-CellInformation        Neighbouring-UMTS-CellInformation OPTIONAL,
   neighbouring-GSM-CellInformation         Neighbouring-GSM-CellInformation OPTIONAL,
   gA-CellAdditionalShapes                  GA-CellAdditionalShapes      OPTIONAL,
   hCS-Prio                     HCS-Prio           OPTIONAL,
   timeSlot-RL-SetupRspTDD      TimeSlot    OPTIONAL,
   -- This IE shall be present if Sync Case IE is Case1. --

   iE-Extensions                ProtocolExtensionContainer { {RL-InformationResponse-RL-SetupRspTDD768-ExtIEs} } OPTIONAL,
   ...
}

RL-InformationResponse-RL-SetupRspTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   ...
}

UL-CCTrCHInformationList-RL-SetupRspTDD768 ::= ProtocolIE-Single-Container {{UL-CCTrCHInformationListIEs-RL-SetupRspTDD768}}

UL-CCTrCHInformationListIEs-RL-SetupRspTDD768 RNSAP-PROTOCOL-IES ::= {
   { ID id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD768   CRITICALITY ignore  TYPE UL-CCTrCHInformationListIE-RL-SetupRspTDD768     PRESENCE
mandatory }
}

UL-CCTrCHInformationListIE-RL-SetupRspTDD768 ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCHInformationItem-RL-SetupRspTDD768

UL-CCTrCHInformationItem-RL-SetupRspTDD768 ::= SEQUENCE {
   cCTrCH-ID                    CCTrCH-ID,
   ul-DPCH-Information768               UL-DPCH-InformationList-RL-SetupRspTDD768        OPTIONAL,
   uL-SIR-Target-CCTrCH-InformationItem-RL-SetupRspTDD768      UL-SIR      OPTIONAL,
   iE-Extensions                ProtocolExtensionContainer { {UL-CCTrCHInformationItem-RL-SetupRspTDD768-ExtIEs} } OPTIONAL,
   ...
}
```

```
UL-CCTrCHInformationItem-RL-SetupRspTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-InformationList-RL-SetupRspTDD768 ::= ProtocolIE-Single-Container { {UL-DPCH-InformationListIEs-RL-SetupRspTDD768} }

UL-DPCH-InformationListIEs-RL-SetupRspTDD768 RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationItem-RL-SetupRspTDD768     CRITICALITY ignore  TYPE UL-DPCH-InformationItem-RL-SetupRspTDD768  PRESENCE mandatory
    }
}

UL-DPCH-InformationItem-RL-SetupRspTDD768 ::= SEQUENCE {
    repetitionPeriod              RepetitionPeriod,
    repetitionLength              RepetitionLength,
    tDD-DPCHOffset                TDD-DPCHOffset,
    uL-Timeslot-Information768        UL-Timeslot-Information768,
    iE-Extensions                 ProtocolExtensionContainer { {UL-DPCH-InformationItem-RL-SetupRspTDD768-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-InformationItem-RL-SetupRspTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCHInformationList-RL-SetupRspTDD768 ::= ProtocolIE-Single-Container {{DL-CCTrCHInformationListIEs-RL-SetupRspTDD768}}

DL-CCTrCHInformationListIEs-RL-SetupRspTDD768 RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD768  CRITICALITY ignore  TYPE DL-CCTrCHInformationListIE-RL-SetupRspTDD768  PRESENCE
mandatory }
}

DL-CCTrCHInformationListIE-RL-SetupRspTDD768 ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCHInformationItem-RL-SetupRspTDD768

DL-CCTrCHInformationItem-RL-SetupRspTDD768 ::= SEQUENCE {
    cCTrCH-ID                CCTrCH-ID,
    dl-DPCH-Information768            DL-DPCH-InformationList-RL-SetupRspTDD768      OPTIONAL,
    cCTrCH-Maximum-DL-Power          DL-Power        OPTIONAL, -- this is a DCH type CCTrCH power
    cCTrCH-Minimum-DL-Power          DL-Power        OPTIONAL, -- this is a DCH type CCTrCH power
    iE-Extensions                ProtocolExtensionContainer { {DL-CCTrCHInformationItem-RL-SetupRspTDD768-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCHInformationItem-RL-SetupRspTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationList-RL-SetupRspTDD768 ::= ProtocolIE-Single-Container { {DL-DPCH-InformationListIEs-RL-SetupRspTDD768} }

DL-DPCH-InformationListIEs-RL-SetupRspTDD768 RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationItem-RL-SetupRspTDD768     CRITICALITY ignore  TYPE DL-DPCH-InformationItem-RL-SetupRspTDD768  PRESENCE mandatory
    }
}
```

```
DL-DPCH-InformationItem-RL-SetupRspTDD768 ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    dL-Timeslot-Information768      DL-Timeslot-Information768,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-InformationItem-RL-SetupRspTDD768-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-InformationItem-RL-SetupRspTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


-- *****************************************************************
--
-- RADIO LINK SETUP FAILURE FDD
--
-- *****************************************************************

RadioLinkSetupFailureFDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container        {{RadioLinkSetupFailureFDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkSetupFailureFDD-Extensions}}          OPTIONAL,
    ...
}

RadioLinkSetupFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-D-RNTI                          CRITICALITY ignore  TYPE D-RNTI                       PRESENCE optional   } |
    { ID id-CN-PS-DomainIdentifier          CRITICALITY ignore  TYPE CN-PS-DomainIdentifier       PRESENCE optional } |
    { ID id-CN-CS-DomainIdentifier          CRITICALITY ignore  TYPE CN-CS-DomainIdentifier       PRESENCE optional } |
    { ID id-CauseLevel-RL-SetupFailureFDD   CRITICALITY ignore  TYPE CauseLevel-RL-SetupFailureFDD   PRESENCE mandatory }|
    { ID id-UL-SIRTarget                    CRITICALITY ignore  TYPE UL-SIR                       PRESENCE optional } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics       PRESENCE optional },
    ...
}

CauseLevel-RL-SetupFailureFDD ::= CHOICE {
    generalCause        GeneralCauseList-RL-SetupFailureFDD,
    rLSpecificCause     RLSpecificCauseList-RL-SetupFailureFDD,
    ...
}

GeneralCauseList-RL-SetupFailureFDD ::= SEQUENCE {
    cause                                   Cause,
    iE-Extensions                           ProtocolExtensionContainer { { GeneralCauseItem-RL-SetupFailureFDD-ExtIEs} }   OPTIONAL,
    ...
}

GeneralCauseItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RLSpecificCauseList-RL-SetupFailureFDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespList-RL-SetupFailureFDD      UnsuccessfulRL-InformationResponseList-RL-SetupFailureFDD,
    successful-RL-InformationRespList-RL-SetupFailureFDD        SuccessfulRL-InformationResponseList-RL-SetupFailureFDD  OPTIONAL,
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    iE-Extensions                                ProtocolExtensionContainer { { RLSpecificCauseItem-RL-SetupFailureFDD-ExtIEs} }   OPTIONAL,
    ...
}

RLSpecificCauseItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCH-RNTI                          CRITICALITY ignore    EXTENSION HSDSCH-RNTI                          PRESENCE optional }|
    { ID id-HSDSCH-FDD-Information-Response      CRITICALITY ignore    EXTENSION HSDSCH-FDD-Information-Response      PRESENCE optional }|
    { ID id-Continuous-Packet-Connectivity-HS-SCCH-Less-Information-Response        CRITICALITY ignore    EXTENSION Continuous-Packet-Connectivity-
HS-SCCH-Less-Information-Response        PRESENCE optional }|
    { ID id-SixtyfourQAM-DL-SupportIndicator    CRITICALITY ignore    EXTENSION SixtyfourQAM-DL-SupportIndicator    PRESENCE optional },
    ...
}

UnsuccessfulRL-InformationResponseList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {UnsuccessfulRL-
InformationResponse-RL-SetupFailureFDD-IEs} }

UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD      CRITICALITY ignore  TYPE UnsuccessfulRL-InformationResponse-RL-
SetupFailureFDD    PRESENCE mandatory  }
}

UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD ::= SEQUENCE {
    rL-ID                         RL-ID,
    cause                         Cause,
    iE-Extensions                 ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Max-UE-DTX-Cycle      CRITICALITY ignore    EXTENSION Max-UE-DTX-Cycle         PRESENCE conditional },
    -- This IE shall be present if the Cause IE is set to "Continuous Packet Connectivity UE DTX Cycle not Available".
    ...
}

SuccessfulRL-InformationResponseList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (0..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { {SuccessfulRL-
InformationResponse-RL-SetupFailureFDD-IEs} }

SuccessfulRL-InformationResponse-RL-SetupFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-SuccessfulRL-InformationResponse-RL-SetupFailureFDD     CRITICALITY ignore  TYPE SuccessfulRL-InformationResponse-RL-SetupFailureFDD
    PRESENCE mandatory  }
}

SuccessfulRL-InformationResponse-RL-SetupFailureFDD ::= SEQUENCE {
    rL-ID                              RL-ID,
    rL-Set-ID                          RL-Set-ID,
    uRA-Information                    URA-Information                      OPTIONAL,
    sAI                                SAI,
    gA-Cell                            GA-Cell     OPTIONAL,
    gA-AccessPointPosition             GA-AccessPointPosition               OPTIONAL,
    received-total-wide-band-power     Received-total-wide-band-power,
    not-Used-secondary-CCPCH-Info               NULL           OPTIONAL,
    dl-CodeInformation                 FDD-DL-CodeInformation,
    diversityIndication                DiversityIndication-RL-SetupFailureFDD,
    sSDT-SupportIndicator              SSDT-SupportIndicator,
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    maxUL-SIR                               UL-SIR,
    minUL-SIR                               UL-SIR,
    closedlooptimingadjustmentmode          Closedlooptimingadjustmentmode      OPTIONAL,
    maximumAllowedULTxPower                  MaximumAllowedULTxPower,
    maximumDLTxPower                         DL-Power,
    minimumDLTxPower                         DL-Power,
    primaryCPICH-Power                       PrimaryCPICH-Power,
    primaryScramblingCode                    PrimaryScramblingCode               OPTIONAL,
    uL-UARFCN                                UARFCN                              OPTIONAL,
    dL-UARFCN                                UARFCN                              OPTIONAL,
    not-Used-dSCH-InformationResponse-RL-SetupFailureFDD    NULL                OPTIONAL,
    neighbouring-UMTS-CellInformation        Neighbouring-UMTS-CellInformation  OPTIONAL,
    neighbouring-GSM-CellInformation         Neighbouring-GSM-CellInformation   OPTIONAL,
    pC-Preamble                              PC-Preamble,
    sRB-Delay                                SRB-Delay,
    iE-Extensions                            ProtocolExtensionContainer { {SuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

SuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes               CRITICALITY ignore  EXTENSION GA-CellAdditionalShapes                        PRESENCE optional
}|
    { ID id-DL-PowerBalancing-ActivationIndicator CRITICALITY ignore  EXTENSION DL-PowerBalancing-ActivationIndicator         PRESENCE optional
}|
    { ID id-HCS-Prio                              CRITICALITY ignore  EXTENSION HCS-Prio                                       PRESENCE optional
}|
    { ID id-Primary-CPICH-Usage-For-Channel-Estimation CRITICALITY ignore  EXTENSION Primary-CPICH-Usage-For-Channel-Estimation  PRESENCE
optional }|
    { ID id-Secondary-CPICH-Information           CRITICALITY ignore  EXTENSION Secondary-CPICH-Information                    PRESENCE
optional }|
    { ID id-Active-MBMS-Bearer-ServiceFDD-PFL         CRITICALITY ignore  EXTENSION Active-MBMS-Bearer-Service-ListFDD-PFL         PRESENCE
optional }|
    { ID id-EDCH-RLSet-Id                         CRITICALITY ignore  EXTENSION RL-Set-ID                                      PRESENCE
optional }|
    { ID id-EDCH-FDD-DL-ControlChannelInformation CRITICALITY ignore  EXTENSION EDCH-FDD-DL-ControlChannelInformation         PRESENCE
optional }|
    { ID id-Initial-DL-DPCH-TimingAdjustment      CRITICALITY ignore  EXTENSION DL-DPCH-TimingAdjustment                      PRESENCE optional
}|
    { ID id-F-DPCH-SlotFormat                     CRITICALITY ignore  EXTENSION F-DPCH-SlotFormat                             PRESENCE optional
},
    ...
}

DiversityIndication-RL-SetupFailureFDD ::= CHOICE {
    combining                   Combining-RL-SetupFailureFDD,
    nonCombiningOrFirstRL       NonCombiningOrFirstRL-RL-SetupFailureFDD
}

Combining-RL-SetupFailureFDD ::= SEQUENCE {
    rL-ID                   RL-ID,
    iE-Extensions           ProtocolExtensionContainer { { CombiningItem-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    ...
}
```

```
CombiningItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DCH-InformationResponse         CRITICALITY ignore  EXTENSION DCH-InformationResponse      PRESENCE optional }|
    { ID id-EDCH-FDD-InformationResponse    CRITICALITY ignore  EXTENSION EDCH-FDD-InformationResponse      PRESENCE optional },
    ...
}

NonCombiningOrFirstRL-RL-SetupFailureFDD ::= SEQUENCE {
    dCH-InformationResponse             DCH-InformationResponse,
    iE-Extensions                       ProtocolExtensionContainer { { NonCombiningOrFirstRLItem-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

NonCombiningOrFirstRLItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-EDCH-FDD-InformationResponse    CRITICALITY ignore  EXTENSION EDCH-FDD-InformationResponse      PRESENCE optional },
    ...
}

RadioLinkSetupFailureFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- ****************************************************************
--
-- RADIO LINK SETUP FAILURE TDD
--
-- ****************************************************************

RadioLinkSetupFailureTDD ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container        {{RadioLinkSetupFailureTDD-IEs}},
    protocolExtensions          ProtocolExtensionContainer {{RadioLinkSetupFailureTDD-Extensions}}                OPTIONAL,
    ...
}

RadioLinkSetupFailureTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-CauseLevel-RL-SetupFailureTDD   CRITICALITY ignore  TYPE CauseLevel-RL-SetupFailureTDD     PRESENCE mandatory }|
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

CauseLevel-RL-SetupFailureTDD ::= CHOICE {
    generalCause        GeneralCauseList-RL-SetupFailureTDD,
    rLSpecificCause     RLSpecificCauseList-RL-SetupFailureTDD,
    ...
}

GeneralCauseList-RL-SetupFailureTDD ::= SEQUENCE {
    cause                       Cause,
    iE-Extensions               ProtocolExtensionContainer { { GeneralCauseItem-RL-SetupFailureTDD-ExtIEs} }    OPTIONAL,
    ...
}

GeneralCauseItem-RL-SetupFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
RLSpecificCauseList-RL-SetupFailureTDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD  Unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD,
    iE-Extensions                                           ProtocolExtensionContainer { { RLSpecificCauseItem-RL-SetupFailureTDD-ExtIEs} }
    OPTIONAL,
    ...
}

RLSpecificCauseItem-RL-SetupFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD ::= ProtocolIE-Single-Container { {Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureTDD}
}

Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureTDD RNSAP-PROTOCOL-IES ::= {
    { ID    id-UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD      CRITICALITY ignore   TYPE  UnsuccessfulRL-InformationResponse-RL-
SetupFailureTDD     PRESENCE    mandatory   }
}

UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD ::= SEQUENCE {
    rL-ID                   RL-ID,
    cause                   Cause,
    iE-Extensions           ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD-ExtIEs} } OPTIONAL,
    ...
}

UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkSetupFailureTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- ****************************************************************
--
-- RADIO LINK ADDITION REQUEST FDD
--
-- ****************************************************************

RadioLinkAdditionRequestFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container       {{RadioLinkAdditionRequestFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer {{RadioLinkAdditionRequestFDD-Extensions}}                    OPTIONAL,
    ...
}

RadioLinkAdditionRequestFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-SIRTarget                CRITICALITY reject  TYPE UL-SIR                    PRESENCE mandatory } |
    { ID id-RL-InformationList-RL-AdditionRqstFDD   CRITICALITY notify  TYPE RL-InformationList-RL-AdditionRqstFDD PRESENCE mandatory   }|
    { ID id-Active-Pattern-Sequence-Information CRITICALITY reject  TYPE Active-Pattern-Sequence-Information  PRESENCE optional },
    ...
}
```

ETSI

```
RL-InformationList-RL-AdditionRqstFDD                ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { {RL-Information-RL-
AdditionRqstFDD-IEs} }

RL-Information-RL-AdditionRqstFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-AdditionRqstFDD   CRITICALITY notify  TYPE RL-Information-RL-AdditionRqstFDD    PRESENCE mandatory   }
}

RL-Information-RL-AdditionRqstFDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    c-ID                        C-ID,
    frameOffset                 FrameOffset,
    chipOffset                  ChipOffset,
    diversityControlField       DiversityControlField,
    primaryCPICH-EcNo           PrimaryCPICH-EcNo      OPTIONAL,
    not-Used-sSDT-CellID        NULL           OPTIONAL,
    transmitDiversityIndicator  TransmitDiversityIndicator     OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {RL-Information-RL-AdditionRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-RL-AdditionRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DLReferencePower   CRITICALITY ignore       EXTENSION   DL-Power        PRESENCE optional}|
    { ID id-Enhanced-PrimaryCPICH-EcNo            CRITICALITY ignore        EXTENSION Enhanced-PrimaryCPICH-EcNo    PRESENCE optional }|
    { ID id-RL-Specific-DCH-Info       CRITICALITY ignore      EXTENSION   RL-Specific-DCH-Info PRESENCE    optional }|
    { ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional }|
    { ID id-RL-Specific-EDCH-Information          CRITICALITY reject       EXTENSION RL-Specific-EDCH-Information     PRESENCE optional }|
    { ID id-EDCH-RL-Indication                    CRITICALITY reject       EXTENSION EDCH-RL-Indication                           PRESENCE
optional }|
    { ID id-SynchronisationIndicator              CRITICALITY ignore      EXTENSION SynchronisationIndicator          PRESENCE optional},
    ...
}

RadioLinkAdditionRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DPC-Mode                                CRITICALITY reject  EXTENSION DPC-Mode                              PRESENCE optional
}|
    { ID id-Permanent-NAS-UE-Identity               CRITICALITY ignore  EXTENSION Permanent-NAS-UE-Identity            PRESENCE optional
}|
        { ID id-Serving-EDCHRL-Id                   CRITICALITY reject  EXTENSION EDCH-Serving-RL                       PRESENCE
optional }|
    { ID id-Initial-DL-DPCH-TimingAdjustment-Allowed   CRITICALITY ignore  EXTENSION Initial-DL-DPCH-TimingAdjustment-Allowed   PRESENCE optional
}|
    { ID id-HS-DSCH-serving-cell-change-information   CRITICALITY reject  EXTENSION HS-DSCH-serving-cell-change-information   PRESENCE optional
}|
    { ID id-Serving-cell-change-CFN                 CRITICALITY reject  EXTENSION CFN                                   PRESENCE optional
}|
    { ID id-EDPCH-Information                        CRITICALITY reject  EXTENSION EDPCH-Information-RLAdditionReq-FDD     PRESENCE
optional }|
    { ID id-EDCH-FDD-Information                     CRITICALITY reject  EXTENSION EDCH-FDD-Information                 PRESENCE
optional },
    -- This IE shall be present if E-DPCH Information is present
    ...
}

EDPCH-Information-RLAdditionReq-FDD::= SEQUENCE {
```

```
    maxSet-E-DPDCHs                         Max-Set-E-DPDCHs,
    ul-PunctureLimit                        PunctureLimit,
    e-TFCS-Information                      E-TFCS-Information,
    e-TTI                                   E-TTI,
    e-DPCCH-PO                              E-DPCCH-PO,
    e-RGCH-2-IndexStepThreshold             E-RGCH-2-IndexStepThreshold,
    e-RGCH-3-IndexStepThreshold             E-RGCH-3-IndexStepThreshold,
    hARQ-Info-for-E-DCH                     HARQ-Info-for-E-DCH,
    iE-Extensions                           ProtocolExtensionContainer { { EDPCH-Information-RLAdditionReq-FDD-ExtIEs} }   OPTIONAL,
    ...
}

EDPCH-Information-RLAdditionReq-FDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-HSDSCH-Configured-Indicator     CRITICALITY reject  EXTENSION   HSDSCH-Configured-Indicator                    PRESENCE mandatory},
-- This shall be present for EDPCH configuration with HSDCH
    ...
}

-- *************************************************************
--
-- RADIO LINK ADDITION REQUEST TDD
--
-- *************************************************************

RadioLinkAdditionRequestTDD ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container      {{RadioLinkAdditionRequestTDD-IEs}},
    protocolExtensions          ProtocolExtensionContainer {{RadioLinkAdditionRequestTDD-Extensions}}               OPTIONAL,
    ...
}

RadioLinkAdditionRequestTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-AdditionRqstTDD   CRITICALITY reject  TYPE RL-Information-RL-AdditionRqstTDD    PRESENCE mandatory  },
    ...
}

RL-Information-RL-AdditionRqstTDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    c-ID                        C-ID,
    frameOffset                 FrameOffset,
    diversityControlField       DiversityControlField,
    primaryCCPCH-RSCP           PrimaryCCPCH-RSCP         OPTIONAL,
    dL-TimeSlot-ISCP-Info       DL-TimeSlot-ISCP-Info   OPTIONAL,
    --for 3.84Mcps TDD only
    iE-Extensions               ProtocolExtensionContainer { {RL-Information-RL-AdditionRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-RL-AdditionRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-Timeslot-ISCP-LCR-Information-RL-AdditionRqstTDD CRITICALITY reject     EXTENSION   DL-TimeSlot-ISCP-LCR-Information    PRESENCE
optional    }|
    --for 1.28Mcps TDD only
    { ID id-RL-Specific-DCH-Info        CRITICALITY ignore    EXTENSION   RL-Specific-DCH-Info PRESENCE    optional }|
    { ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional }|
```

```
    { ID id-UL-Synchronisation-Parameters-LCR          CRITICALITY reject       EXTENSION   UL-Synchronisation-Parameters-LCR      PRESENCE
    optional      }|  -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
    { ID id-PrimaryCCPCH-RSCP-Delta      CRITICALITY ignore     EXTENSION   PrimaryCCPCH-RSCP-Delta     PRESENCE    optional },
    ...
}

RadioLinkAdditionRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Permanent-NAS-UE-Identity                  CRITICALITY ignore         EXTENSION Permanent-NAS-UE-Identity    PRESENCE optional }|
    { ID id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD    CRITICALITY notify   EXTENSION UL-CCTrCH-InformationList-RL-AdditionRqstTDD    PRESENCE
optional      } |
    { ID id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD    CRITICALITY notify   EXTENSION DL-CCTrCH-InformationList-RL-AdditionRqstTDD    PRESENCE
optional      }|
    { ID id-HSDSCH-TDD-Information                      CRITICALITY reject        EXTENSION HSDSCH-TDD-Information         PRESENCE optional }|
    { ID id-HSPDSCH-RL-ID                              CRITICALITY reject        EXTENSION RL-ID                         PRESENCE optional }|
    { ID id-E-DCH-Information                          CRITICALITY reject        EXTENSION E-DCH-Information             PRESENCE optional }|
    { ID id-E-DCH-Serving-RL-ID                        CRITICALITY reject        EXTENSION RL-ID                         PRESENCE optional }|
    { ID id-E-DCH-768-Information                      CRITICALITY reject        EXTENSION E-DCH-768-Information         PRESENCE optional }|
    { ID id-E-DCH-LCR-Information                      CRITICALITY reject        EXTENSION E-DCH-LCR-Information         PRESENCE optional },
    ...
}

UL-CCTrCH-InformationList-RL-AdditionRqstTDD    ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
InformationItemIEs-RL-AdditionRqstTDD} }

UL-CCTrCH-InformationItemIEs-RL-AdditionRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationItem-RL-AdditionRqstTDD   CRITICALITY notify  TYPE UL-CCTrCH-InformationItem-RL-AdditionRqstTDD PRESENCE
optional},
    ...
}

UL-CCTrCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
    cCTrCH-ID                 CCTrCH-ID,
    uplinkStepSizeLCR         TDD-TPC-UplinkStepSize-LCR    OPTIONAL,
    -- Applicable to 1.28Mcps TDD only
    iE-Extensions             ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationList-RL-AdditionRqstTDD    ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
InformationItemIEs-RL-AdditionRqstTDD} }

DL-CCTrCH-InformationItemIEs-RL-AdditionRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationItem-RL-AdditionRqstTDD   CRITICALITY notify  TYPE DL-CCTrCH-InformationItem-RL-AdditionRqstTDD PRESENCE
optional},
    ...
}

DL-CCTrCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
    cCTrCH-ID                 CCTrCH-ID,
    downlinkStepSize          TDD-TPC-DownlinkStepSize    OPTIONAL,
```

```
    iE-Extensions                    ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK ADDITION RESPONSE FDD
--
-- **************************************************************

RadioLinkAdditionResponseFDD ::= SEQUENCE {
    protocolIEs                      ProtocolIE-Container      {{RadioLinkAdditionResponseFDD-IEs}},
    protocolExtensions               ProtocolExtensionContainer {{RadioLinkAdditionResponseFDD-Extensions}}                OPTIONAL,
    ...
}

RadioLinkAdditionResponseFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseList-RL-AdditionRspFDD   CRITICALITY ignore  TYPE RL-InformationResponseList-RL-AdditionRspFDD    PRESENCE
mandatory   } |
    { ID id-CriticalityDiagnostics        CRITICALITY ignore  TYPE CriticalityDiagnostics       PRESENCE optional },
    ...
}

RL-InformationResponseList-RL-AdditionRspFDD        ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { {RL-
InformationResponseItemIEs-RL-AdditionRspFDD} }

RL-InformationResponseItemIEs-RL-AdditionRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseItem-RL-AdditionRspFDD      CRITICALITY ignore  TYPE RL-InformationResponseItem-RL-AdditionRspFDD    PRESENCE
mandatory   }
}

RL-InformationResponseItem-RL-AdditionRspFDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    rL-Set-ID                   RL-Set-ID,
    uRA-Information             URA-Information     OPTIONAL,
    sAI                         SAI,
    gA-Cell                     GA-Cell       OPTIONAL,
    gA-AccessPointPosition      GA-AccessPointPosition  OPTIONAL,
    received-total-wide-band-power  Received-total-wide-band-power,
    not-Used-secondary-CCPCH-Info          NULL         OPTIONAL,
    dl-CodeInformation          DL-CodeInformationList-RL-AdditionRspFDD,
    diversityIndication         DiversityIndication-RL-AdditionRspFDD,

    sSDT-SupportIndicator              SSDT-SupportIndicator,
    minUL-SIR                   UL-SIR,
    maxUL-SIR                   UL-SIR,
    closedlooptimingadjustmentmode     Closedlooptimingadjustmentmode  OPTIONAL,
    maximumAllowedULTxPower             MaximumAllowedULTxPower,
    maximumDLTxPower                   DL-Power,
    minimumDLTxPower                   DL-Power,
```

```
    neighbouring-UMTS-CellInformation    Neighbouring-UMTS-CellInformation   OPTIONAL,
    neighbouring-GSM-CellInformation     Neighbouring-GSM-CellInformation OPTIONAL,
    pC-Preamble                          PC-Preamble,
    sRB-Delay                            SRB-Delay,
    primaryCPICH-Power                   PrimaryCPICH-Power,
    iE-Extensions                        ProtocolExtensionContainer { {RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes             CRITICALITY ignore  EXTENSION GA-CellAdditionalShapes                       PRESENCE optional }|
    { ID id-DL-PowerBalancing-ActivationIndicator  CRITICALITY ignore  EXTENSION DL-PowerBalancing-ActivationIndicator      PRESENCE optional}|
    { ID id-HCS-Prio                            CRITICALITY ignore  EXTENSION HCS-Prio                                       PRESENCE optional }|
    { ID id-Active-MBMS-Bearer-ServiceFDD-PFL          CRITICALITY ignore EXTENSION Active-MBMS-Bearer-Service-ListFDD-PFL          PRESENCE
optional }|
    { ID id-EDCH-RLSet-Id                       CRITICALITY ignore EXTENSION RL-Set-ID                                       PRESENCE optional }|
    { ID id-EDCH-FDD-DL-ControlChannelInformation   CRITICALITY ignore EXTENSION EDCH-FDD-DL-ControlChannelInformation       PRESENCE optional }|
    { ID id-Initial-DL-DPCH-TimingAdjustment     CRITICALITY ignore EXTENSION DL-DPCH-TimingAdjustment                      PRESENCE optional }|
    { ID id-F-DPCH-SlotFormat                    CRITICALITY ignore EXTENSION F-DPCH-SlotFormat                             PRESENCE optional },
    ...
}

DL-CodeInformationList-RL-AdditionRspFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-AdditionRspFDD }}

DL-CodeInformationListIEs-RL-AdditionRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FDD-DL-CodeInformation   CRITICALITY ignore TYPE FDD-DL-CodeInformation     PRESENCE mandatory }
}

DiversityIndication-RL-AdditionRspFDD ::= CHOICE {
    combining                        Combining-RL-AdditionRspFDD,
    nonCombining                     NonCombining-RL-AdditionRspFDD
}

Combining-RL-AdditionRspFDD ::= SEQUENCE {
    rL-ID                   RL-ID,
    iE-Extensions           ProtocolExtensionContainer { { CombiningItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
    ...
}

CombiningItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DCH-InformationResponse        CRITICALITY ignore  EXTENSION DCH-InformationResponse        PRESENCE optional }|
    { ID id-EDCH-FDD-InformationResponse   CRITICALITY ignore  EXTENSION EDCH-FDD-InformationResponse        PRESENCE optional },
    ...
}

NonCombining-RL-AdditionRspFDD ::= SEQUENCE {
    dCH-InformationResponse              DCH-InformationResponse,
    iE-Extensions                        ProtocolExtensionContainer { { NonCombiningItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
    ...
}

NonCombiningItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-EDCH-FDD-InformationResponse   CRITICALITY ignore  EXTENSION EDCH-FDD-InformationResponse        PRESENCE optional },
    ...
```

```
}

RadioLinkAdditionResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HS-DSCH-serving-cell-change-informationResponse CRITICALITY ignore  EXTENSION HS-DSCH-serving-cell-change-informationResponse
    PRESENCE optional}|
    { ID id-E-DCH-Serving-cell-change-informationResponse   CRITICALITY ignore  EXTENSION E-DCH-Serving-cell-change-informationResponse
    PRESENCE optional}|
    { ID id-MAChs-ResetIndicator                            CRITICALITY ignore  EXTENSION MAChs-ResetIndicator
    PRESENCE optional},
    ...
}

-- **************************************************************
--
-- RADIO LINK ADDITION RESPONSE TDD
--
-- **************************************************************

RadioLinkAdditionResponseTDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container     {{RadioLinkAdditionResponseTDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkAdditionResponseTDD-Extensions}}             OPTIONAL,
    ...
}

RadioLinkAdditionResponseTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponse-RL-AdditionRspTDD        CRITICALITY ignore  TYPE RL-InformationResponse-RL-AdditionRspTDD  PRESENCE optional }
|
    --Mandatory for 3.84Mcps TDD only
    { ID id-CriticalityDiagnostics         CRITICALITY ignore  TYPE CriticalityDiagnostics     PRESENCE optional },
    ...
}

RL-InformationResponse-RL-AdditionRspTDD ::= SEQUENCE {
    rL-ID                           RL-ID,
    uRA-Information                 URA-Information    OPTIONAL,
    sAI                             SAI,
    gA-Cell                         GA-Cell    OPTIONAL,
    gA-AccessPointPosition          GA-AccessPointPosition  OPTIONAL,
    ul-TimeSlot-ISCP-Info           UL-TimeSlot-ISCP-Info,
    minUL-SIR                       UL-SIR,
    maxUL-SIR                       UL-SIR,
    maximumAllowedULTxPower         MaximumAllowedULTxPower,
    maximumDLTxPower                DL-Power,
    minimumDLTxPower                DL-Power,
    pCCPCH-Power                    PCCPCH-Power,
    timingAdvanceApplied            TimingAdvanceApplied,
    alphaValue                      AlphaValue,
    ul-PhysCH-SF-Variation          UL-PhysCH-SF-Variation,
    synchronisationConfiguration    SynchronisationConfiguration,
    secondary-CCPCH-Info-TDD        Secondary-CCPCH-Info-TDD                        OPTIONAL,
    ul-CCTrCHInformation            UL-CCTrCHInformationList-RL-AdditionRspTDD      OPTIONAL,
    dl-CCTrCHInformation            DL-CCTrCHInformationList-RL-AdditionRspTDD      OPTIONAL,
    dCH-Information                 DCH-Information-RL-AdditionRspTDD               OPTIONAL,
    dSCH-InformationResponse        DSCH-InformationResponse-RL-AdditionRspTDD      OPTIONAL,
```

```
    uSCH-InformationResponse          USCH-InformationResponse-RL-AdditionRspTDD     OPTIONAL,
    neighbouring-UMTS-CellInformation   Neighbouring-UMTS-CellInformation   OPTIONAL,
    neighbouring-GSM-CellInformation    Neighbouring-GSM-CellInformation OPTIONAL,
    iE-Extensions                     ProtocolExtensionContainer { {RL-InformationResponse-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationResponse-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes       CRITICALITY ignore  EXTENSION  GA-CellAdditionalShapes     PRESENCE optional }|
    { ID id-HCS-Prio              CRITICALITY ignore  EXTENSION  HCS-Prio         PRESENCE optional },
    ...
}

UL-CCTrCHInformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{UL-CCTrCHInformationListIEs-RL-AdditionRspTDD}}

UL-CCTrCHInformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD   CRITICALITY ignore  TYPE UL-CCTrCHInformationListIE-RL-AdditionRspTDD    PRESENCE
mandatory }
}

UL-CCTrCHInformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCHInformationItem-RL-AdditionRspTDD

UL-CCTrCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    cCTrCH-ID                 CCTrCH-ID,
    ul-DPCH-Information          UL-DPCH-InformationList-RL-AdditionRspTDD        OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {UL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-InformationListIEs-RL-AdditionRspTDD} }

UL-DPCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationItem-RL-AdditionRspTDD      CRITICALITY ignore  TYPE UL-DPCH-InformationItem-RL-AdditionRspTDD  PRESENCE mandatory
    }
}

UL-DPCH-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    repetitionPeriod             RepetitionPeriod,
    repetitionLength             RepetitionLength,
    tDD-DPCHOffset               TDD-DPCHOffset,
    uL-Timeslot-Information       UL-Timeslot-Information,
    iE-Extensions                ProtocolExtensionContainer { {UL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCHInformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DL-CCTrCHInformationListIEs-RL-AdditionRspTDD}}
```

```
DL-CCTrCHInformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD   CRITICALITY ignore  TYPE DL-CCTrCHInformationListIE-RL-AdditionRspTDD    PRESENCE
mandatory }
}

DL-CCTrCHInformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCHInformationItem-RL-AdditionRspTDD

DL-CCTrCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    cCTrCH-ID                 CCTrCH-ID,
    dl-DPCH-Information            DL-DPCH-InformationList-RL-AdditionRspTDD      OPTIONAL,
    iE-Extensions                 ProtocolExtensionContainer { {DL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-CCTrCH-Maximum-DL-Power-RL-AdditionRspTDD       CRITICALITY ignore     EXTENSION DL-Power    PRESENCE optional}| -- this is a DCH
type CCTrCH power
    { ID id-CCTrCH-Minimum-DL-Power-RL-AdditionRspTDD       CRITICALITY ignore     EXTENSION DL-Power    PRESENCE optional}, -- this is a DCH
type CCTrCH power
    ...
}

DL-DPCH-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-InformationListIEs-RL-AdditionRspTDD} }

DL-DPCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationItem-RL-AdditionRspTDD       CRITICALITY ignore  TYPE DL-DPCH-InformationItem-RL-AdditionRspTDD  PRESENCE mandatory
    }
}

DL-DPCH-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    repetitionPeriod             RepetitionPeriod,
    repetitionLength             RepetitionLength,
    tDD-DPCHOffset               TDD-DPCHOffset,
    dL-Timeslot-Information       DL-Timeslot-Information,
    iE-Extensions                ProtocolExtensionContainer { {DL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-Information-RL-AdditionRspTDD ::= SEQUENCE {
    diversityIndication               DiversityIndication-RL-AdditionRspTDD,

    iE-Extensions                     ProtocolExtensionContainer { { DCH-Information-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-Information-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
DiversityIndication-RL-AdditionRspTDD ::= CHOICE {
    combining         Combining-RL-AdditionRspTDD,
    nonCombining      NonCombining-RL-AdditionRspTDD
}

Combining-RL-AdditionRspTDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    iE-Extensions               ProtocolExtensionContainer { { CombiningItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

CombiningItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DCH-InformationResponse         CRITICALITY ignore  EXTENSION DCH-InformationResponse       PRESENCE optional },
    ...
}

NonCombining-RL-AdditionRspTDD  ::= SEQUENCE {
    dCH-InformationResponse     DCH-InformationResponse,
    iE-Extensions               ProtocolExtensionContainer { { NonCombiningItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

NonCombiningItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DSCH-InformationListIEs-RL-AdditionRspTDD}}

DSCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationListIE-RL-AdditionRspTDD    CRITICALITY ignore  TYPE DSCH-InformationListIE-RL-AdditionRspTDD    PRESENCE mandatory }
}

DSCH-InformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCHInformationItem-RL-AdditionRspTDD

DSCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    dsch-ID                 DSCH-ID,
    transportFormatManagement   TransportFormatManagement,
    dSCH-FlowControlInformation     DSCH-FlowControlInformation,
    diversityIndication     DiversityIndication-RL-AdditionRspTDD2 OPTIONAL,
    -- diversityIndication present, if CHOICE = nonCombining
    iE-Extensions           ProtocolExtensionContainer { {DSCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DSCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DiversityIndication-RL-AdditionRspTDD2 ::= SEQUENCE {
    bindingID               BindingID   OPTIONAL,
    transportLayerAddress   TransportLayerAddress   OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { {DiversityIndication-RL-AdditionRspTDD2-ExtIEs} } OPTIONAL,
    ...
}
```

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```
DiversityIndication-RL-AdditionRspTDD2-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

USCH-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{USCH-InformationListIEs-RL-AdditionRspTDD}}

USCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-InformationListIE-RL-AdditionRspTDD   CRITICALITY ignore  TYPE USCH-InformationListIE-RL-AdditionRspTDD   PRESENCE mandatory }
}

USCH-InformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCHInformationItem-RL-AdditionRspTDD

USCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    uSCH-ID                 USCH-ID,
    transportFormatManagement   TransportFormatManagement,
    diversityIndication     DiversityIndication-RL-AdditionRspTDD2 OPTIONAL,
    -- diversityIndication present, if CHOICE = nonCombining
    iE-Extensions               ProtocolExtensionContainer { {USCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

USCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkAdditionResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-LCR-InformationResponse-RL-AdditionRspTDD   CRITICALITY ignore     EXTENSION   RL-LCR-InformationResponse-RL-AdditionRspTDD
    PRESENCE optional    }|
    --Mandatory for 1.28Mcps TDD only
    { ID id-Active-MBMS-Bearer-ServiceTDD-PFL              CRITICALITY ignore     EXTENSION Active-MBMS-Bearer-Service-ListTDD-PFL
    PRESENCE optional}|
    { ID id-HSDSCH-TDD-Information-Response                CRITICALITY ignore     EXTENSION HSDSCH-TDD-Information-Response
    PRESENCE optional }|
    { ID id-DSCH-RNTI                                      CRITICALITY ignore     EXTENSION DSCH-RNTI
    PRESENCE optional }|
    { ID id-RL-InformationResponse-RL-AdditionRspTDD768    CRITICALITY ignore     EXTENSION RL-InformationResponse-RL-AdditionRspTDD768
       PRESENCE optional}|
    { ID id-E-DCH-Information-Response                     CRITICALITY ignore     EXTENSION E-DCH-Information-Response
    PRESENCE optional     }|
    { ID id-E-DCH-768-Information-Response                 CRITICALITY ignore     EXTENSION E-DCH-768-Information-Response
    PRESENCE optional     }|
    { ID id-E-DCH-LCR-Information-Response                 CRITICALITY ignore     EXTENSION E-DCH-LCR-Information-Response
    PRESENCE optional     },
    ...
}

RL-LCR-InformationResponse-RL-AdditionRspTDD ::= SEQUENCE {
    rL-ID                   RL-ID,
    uRA-Information         URA-Information,
    sAI                     SAI,
    gA-Cell                 GA-Cell    OPTIONAL,
    gA-AccessPointPosition  GA-AccessPointPosition  OPTIONAL,
    ul-TimeSlot-ISCP-LCR-Info  UL-TimeSlot-ISCP-LCR-Info,
    maxUL-SIR               UL-SIR,
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    minUL-SIR                   UL-SIR,
    pCCPCH-Power                PCCPCH-Power,
    maximumAllowedULTxPower     MaximumAllowedULTxPower,
    maximumDLTxPower            DL-Power,
    minimumDLTxPower            DL-Power,
    alphaValue                  AlphaValue,
    ul-PhysCH-SF-Variation      UL-PhysCH-SF-Variation,
    synchronisationConfiguration        SynchronisationConfiguration,
    secondary-LCR-CCPCH-Info-TDD        Secondary-LCR-CCPCH-Info-TDD                    OPTIONAL,
    ul-CCTrCH-LCR-Information            UL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD     OPTIONAL,
    dl-CCTrCH-LCR-Information            DL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD     OPTIONAL,
    dCH-InformationResponse             DCH-InformationResponseList-RL-AdditionRspTDD       OPTIONAL,
    dsch-LCR-InformationResponse        DSCH-LCR-InformationResponse-RL-AdditionRspTDD      OPTIONAL,
    usch-LCR-InformationResponse        USCH-LCR-InformationResponse-RL-AdditionRspTDD      OPTIONAL,
    neighbouring-UMTS-CellInformation       Neighbouring-UMTS-CellInformation               OPTIONAL,
    neighbouring-GSM-CellInformation        Neighbouring-GSM-CellInformation            OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { RL-LCR-InformationResponseList-RL-AdditionRspTDD-ExtIEs} }
    OPTIONAL,
    ...
}

RL-LCR-InformationResponseList-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes    CRITICALITY ignore  EXTENSION    GA-CellAdditionalShapes     PRESENCE optional }|
    { ID id-HCS-Prio                   CRITICALITY ignore  EXTENSION    HCS-Prio                    PRESENCE optional }|
    { ID id-UL-TimingAdvanceCtrl-LCR   CRITICALITY ignore  EXTENSION    UL-TimingAdvanceCtrl-LCR    PRESENCE optional }|
    --Mandatory for 1.28Mcps TDD only
    { ID id-PowerControlGAP            CRITICALITY ignore  EXTENSION ControlGAP                      PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-UARFCNforNt                CRITICALITY ignore  EXTENSION UARFCN                          PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only
    ...
}

UL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{UL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD }}

UL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD   CRITICALITY ignore  TYPE UL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD
    PRESENCE mandatory }
}

UL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD

UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    cCTrCH-ID               CCTrCH-ID,
    ul-DPCH-LCR-Information          UL-DPCH-LCR-InformationList-RL-AdditionRspTDD        OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD} }
```

```
UL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD     CRITICALITY ignore  TYPE UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD  PRESENCE
mandatory   }
}

UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    uL-TimeslotLCR-Information       UL-TimeslotLCR-Information,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD}}

DL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD  CRITICALITY ignore  TYPE DL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD
PRESENCE mandatory }
}

DL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD

DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    cCTrCH-ID                  CCTrCH-ID,
    dl-DPCH-LCR-Information     DL-DPCH-LCR-InformationList-RL-AdditionRspTDD      OPTIONAL,
    iE-Extensions              ProtocolExtensionContainer { {DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD} }

DL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD     CRITICALITY ignore  TYPE DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD  PRESENCE
mandatory   }
}

DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    dL-TimeslotLCR-Information       DL-TimeslotLCR-Information,
    tSTD-Indicator                  TSTD-Indicator,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
```

```
}

DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationResponseList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DCH-InformationResponseListIEs-RL-AdditionRspTDD}}

DCH-InformationResponseListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponse   CRITICALITY ignore    TYPE DCH-InformationResponse   PRESENCE mandatory }
}

DSCH-LCR-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DSCH-LCR-InformationList-RL-AdditionRspTDD}}

DSCH-LCR-InformationList-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-LCR-InformationListIEs-RL-AdditionRspTDD     CRITICALITY ignore  TYPE DSCH-LCR-InformationListIEs-RL-AdditionRspTDD PRESENCE
mandatory }
}

DSCH-LCR-InformationListIEs-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHsLCR)) OF DSCH-LCR-InformationItem-RL-AdditionRspTDD

DSCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    dsch-ID                  DSCH-ID,
    dSCH-FlowControlInformation     DSCH-FlowControlInformation,
    bindingID                BindingID   OPTIONAL,
    transportLayerAddress    TransportLayerAddress   OPTIONAL,
    transportFormatManagement   TransportFormatManagement,
    iE-Extensions            ProtocolExtensionContainer { {DSCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DSCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

USCH-LCR-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{USCH-LCR-InformationList-RL-AdditionRspTDD}}

USCH-LCR-InformationList-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-LCR-InformationListIEs-RL-AdditionRspTDD     CRITICALITY ignore  TYPE USCH-LCR-InformationListIEs-RL-AdditionRspTDD PRESENCE
mandatory }
}

USCH-LCR-InformationListIEs-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHsLCR)) OF USCH-LCR-InformationItem-RL-AdditionRspTDD

USCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    usch-ID                  USCH-ID,
    transportFormatManagement   TransportFormatManagement,
    diversityIndication      DiversityIndication-RL-AdditionRspTDD2      OPTIONAL,
    iE-Extensions            ProtocolExtensionContainer { {USCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

USCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

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}

RL-InformationResponse-RL-AdditionRspTDD768 ::= SEQUENCE {
    rL-ID                             RL-ID,
    uRA-Information                   URA-Information    OPTIONAL,
    sAI                               SAI,
    gA-Cell                           GA-Cell    OPTIONAL,
    gA-AccessPointPosition            GA-AccessPointPosition  OPTIONAL,
    ul-TimeSlot-ISCP-Info             UL-TimeSlot-ISCP-Info,
    minUL-SIR                         UL-SIR,
    maxUL-SIR                         UL-SIR,
    maximumAllowedULTxPower           MaximumAllowedULTxPower,
    maximumDLTxPower                  DL-Power,
    minimumDLTxPower                  DL-Power,
    pCCPCH-Power                      PCCPCH-Power,
    timingAdvanceApplied              TimingAdvanceApplied,
    alphaValue                        AlphaValue,
    ul-PhysCH-SF-Variation            UL-PhysCH-SF-Variation,
    synchronisationConfiguration      SynchronisationConfiguration,
    secondary-CCPCH-Info-TDD768       Secondary-CCPCH-Info-TDD768                 OPTIONAL,
    ul-CCTrCHInformation768           UL-CCTrCHInformationList-RL-AdditionRspTDD768      OPTIONAL,
    dl-CCTrCHInformation768           DL-CCTrCHInformationList-RL-AdditionRspTDD768      OPTIONAL,
    dCH-Information                   DCH-Information-RL-AdditionRspTDD           OPTIONAL,
    dSCH-InformationResponse          DSCH-InformationResponse-RL-AdditionRspTDD      OPTIONAL,
    uSCH-InformationResponse          USCH-InformationResponse-RL-AdditionRspTDD      OPTIONAL,
    neighbouring-UMTS-CellInformation Neighbouring-UMTS-CellInformation   OPTIONAL,
    neighbouring-GSM-CellInformation  Neighbouring-GSM-CellInformation OPTIONAL,
    gA-CellAdditionalShapes           GA-CellAdditionalShapes         OPTIONAL,
    hCS-Prio                          HCS-Prio                        OPTIONAL,
    iE-Extensions                     ProtocolExtensionContainer { {RL-InformationResponse-RL-AdditionRspTDD768-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationResponse-RL-AdditionRspTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-CCTrCHInformationList-RL-AdditionRspTDD768 ::= ProtocolIE-Single-Container {{UL-CCTrCHInformationListIEs-RL-AdditionRspTDD768}}

UL-CCTrCHInformationListIEs-RL-AdditionRspTDD768 RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD768   CRITICALITY ignore   TYPE UL-CCTrCHInformationListIE-RL-AdditionRspTDD768    PRESENCE
mandatory }
}

UL-CCTrCHInformationListIE-RL-AdditionRspTDD768 ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCHInformationItem-RL-AdditionRspTDD768

UL-CCTrCHInformationItem-RL-AdditionRspTDD768 ::= SEQUENCE {
    cCTrCH-ID               CCTrCH-ID,
    ul-DPCH-Information768          UL-DPCH-InformationList-RL-AdditionRspTDD768        OPTIONAL,
    iE-Extensions                ProtocolExtensionContainer { {UL-CCTrCHInformationItem-RL-AdditionRspTDD768-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCHInformationItem-RL-AdditionRspTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

UL-DPCH-InformationList-RL-AdditionRspTDD768 ::= ProtocolIE-Single-Container { {UL-DPCH-InformationListIEs-RL-AdditionRspTDD768} }

UL-DPCH-InformationListIEs-RL-AdditionRspTDD768 RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationItem-RL-AdditionRspTDD      CRITICALITY ignore  TYPE UL-DPCH-InformationItem-RL-AdditionRspTDD768  PRESENCE
mandatory    }
}

UL-DPCH-InformationItem-RL-AdditionRspTDD768 ::= SEQUENCE {
    repetitionPeriod              RepetitionPeriod,
    repetitionLength              RepetitionLength,
    tDD-DPCHOffset                TDD-DPCHOffset,
    uL-Timeslot-Information768        UL-Timeslot-Information768,
    iE-Extensions                 ProtocolExtensionContainer { {UL-DPCH-InformationItem-RL-AdditionRspTDD768-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-InformationItem-RL-AdditionRspTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCHInformationList-RL-AdditionRspTDD768 ::= ProtocolIE-Single-Container {{DL-CCTrCHInformationListIEs-RL-AdditionRspTDD768}}

DL-CCTrCHInformationListIEs-RL-AdditionRspTDD768 RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD768   CRITICALITY ignore   TYPE DL-CCTrCHInformationListIE-RL-AdditionRspTDD768   PRESENCE
mandatory }
}

DL-CCTrCHInformationListIE-RL-AdditionRspTDD768 ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCHInformationItem-RL-AdditionRspTDD768

DL-CCTrCHInformationItem-RL-AdditionRspTDD768 ::= SEQUENCE {
    cCTrCH-ID                 CCTrCH-ID,
    dl-DPCH-Information768            DL-DPCH-InformationList-RL-AdditionRspTDD768          OPTIONAL,
    cCTrCH-Maximum-DL-Power           DL-Power    OPTIONAL,-- this is a DCH type CCTrCH power
    cCTrCH-Minimum-DL-Power           DL-Power    OPTIONAL, -- this is a DCH type CCTrCH power
    iE-Extensions                 ProtocolExtensionContainer { {DL-CCTrCHInformationItem-RL-AdditionRspTDD768-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCHInformationItem-RL-AdditionRspTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationList-RL-AdditionRspTDD768 ::= ProtocolIE-Single-Container { {DL-DPCH-InformationListIEs-RL-AdditionRspTDD768} }

DL-DPCH-InformationListIEs-RL-AdditionRspTDD768 RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationItem-RL-AdditionRspTDD768      CRITICALITY ignore  TYPE DL-DPCH-InformationItem-RL-AdditionRspTDD768  PRESENCE
mandatory    }
}

DL-DPCH-InformationItem-RL-AdditionRspTDD768 ::= SEQUENCE {
    repetitionPeriod              RepetitionPeriod,
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    repetitionLength                 RepetitionLength,
    tDD-DPCHOffset                   TDD-DPCHOffset,
    dL-Timeslot-Information768       DL-Timeslot-Information768,
    iE-Extensions                    ProtocolExtensionContainer { {DL-DPCH-InformationItem-RL-AdditionRspTDD768-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-InformationItem-RL-AdditionRspTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


-- ****************************************************************
--
-- RADIO LINK ADDITION FAILURE FDD
--
-- ****************************************************************

RadioLinkAdditionFailureFDD ::= SEQUENCE {
    protocolIEs                      ProtocolIE-Container       {{RadioLinkAdditionFailureFDD-IEs}},
    protocolExtensions               ProtocolExtensionContainer {{RadioLinkAdditionFailureFDD-Extensions}}               OPTIONAL,
    ...
}

RadioLinkAdditionFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-CauseLevel-RL-AdditionFailureFDD                      CRITICALITY      ignore           TYPE CauseLevel-RL-AdditionFailureFDD
          PRESENCE    mandatory }|
    { ID id-CriticalityDiagnostics           CRITICALITY ignore  TYPE CriticalityDiagnostics        PRESENCE optional },
    ...
}

CauseLevel-RL-AdditionFailureFDD ::= CHOICE {
    generalCause        GeneralCauseList-RL-AdditionFailureFDD,
    rLSpecificCause     RLSpecificCauseList-RL-AdditionFailureFDD,
    ...
}

GeneralCauseList-RL-AdditionFailureFDD ::= SEQUENCE {
    cause                                    Cause,
    iE-Extensions                            ProtocolExtensionContainer { { GeneralCauseItem-RL-AdditionFailureFDD-ExtIEs} }      OPTIONAL,
    ...
}

GeneralCauseItem-RL-AdditionFailureFDD-ExtIEs  RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RLSpecificCauseList-RL-AdditionFailureFDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD    UnsuccessfulRL-InformationResponseList-RL-AdditionFailureFDD,
    successful-RL-InformationRespList-RL-AdditionFailureFDD      SuccessfulRL-InformationResponseList-RL-AdditionFailureFDD  OPTIONAL,
    iE-Extensions                            ProtocolExtensionContainer { { RLSpecificCauseItem-RL-AdditionFailureFDD-ExtIEs} }       OPTIONAL,
    ...
}

RLSpecificCauseItem-RL-AdditionFailureFDD-ExtIEs  RNSAP-PROTOCOL-EXTENSION ::= {
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    ...
}

UnsuccessfulRL-InformationResponseList-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container {
{UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-IEs} }

UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD    CRITICALITY ignore  TYPE UnsuccessfulRL-InformationResponse-RL-
AdditionFailureFDD       PRESENCE mandatory  }
}

UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD ::= SEQUENCE {
    rL-ID                         RL-ID,
    cause                         Cause,
    iE-Extensions                 ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SuccessfulRL-InformationResponseList-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (0..maxNrOfRLs-2)) OF ProtocolIE-Single-Container { {SuccessfulRL-
InformationResponse-RL-AdditionFailureFDD-IEs} }

SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-SuccessfulRL-InformationResponse-RL-AdditionFailureFDD     CRITICALITY ignore  TYPE SuccessfulRL-InformationResponse-RL-
AdditionFailureFDD       PRESENCE mandatory  }
}

SuccessfulRL-InformationResponse-RL-AdditionFailureFDD ::= SEQUENCE {
    rL-ID                             RL-ID,
    rL-Set-ID                         RL-Set-ID,
    uRA-Information                   URA-Information     OPTIONAL,
    sAI                               SAI,
    gA-Cell                           GA-Cell     OPTIONAL,
    gA-AccessPointPosition            GA-AccessPointPosition      OPTIONAL,
    received-total-wide-band-power    Received-total-wide-band-power,
    not-Used-secondary-CCPCH-Info                NULL        OPTIONAL,
    dl-CodeInformation                DL-CodeInformationList-RL-AdditionFailureFDD,
    diversityIndication               DiversityIndication-RL-AdditionFailureFDD,
    -- This IE represents both the Diversity Indication IE and the choice based on the diversity indication as described in
    -- the tabular message format in subclause 9.1.
    sSDT-SupportIndicator             SSDT-SupportIndicator,
    minUL-SIR                         UL-SIR,
    maxUL-SIR                         UL-SIR,
    closedlooptimingadjustmentmode    Closedlooptimingadjustmentmode  OPTIONAL,
    maximumAllowedULTxPower           MaximumAllowedULTxPower,
    maximumDLTxPower                  DL-Power,
    minimumDLTxPower                  DL-Power,
    neighbouring-UMTS-CellInformation Neighbouring-UMTS-CellInformation OPTIONAL,
    neighbouring-GSM-CellInformation  Neighbouring-GSM-CellInformation OPTIONAL,
    primaryCPICH-Power                PrimaryCPICH-Power,
    pC-Preamble                       PC-Preamble,
```

```
    sRB-Delay                           SRB-Delay,
    iE-Extensions                       ProtocolExtensionContainer { {SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes                 CRITICALITY ignore  EXTENSION GA-CellAdditionalShapes                    PRESENCE optional
}|
    { ID id-DL-PowerBalancing-ActivationIndicator   CRITICALITY ignore  EXTENSION DL-PowerBalancing-ActivationIndicator      PRESENCE optional
}|
    { ID id-HCS-Prio                                CRITICALITY ignore  EXTENSION HCS-Prio                                    PRESENCE optional }|
    { ID id-Active-MBMS-Bearer-ServiceFDD-PFL           CRITICALITY ignore  EXTENSION Active-MBMS-Bearer-Service-ListFDD-PFL         PRESENCE
optional }|
    { ID id-EDCH-RLSet-Id                           CRITICALITY ignore  EXTENSION RL-Set-ID                                  PRESENCE optional }|
    { ID id-EDCH-FDD-DL-ControlChannelInformation   CRITICALITY ignore  EXTENSION EDCH-FDD-DL-ControlChannelInformation      PRESENCE optional }|
    { ID id-Initial-DL-DPCH-TimingAdjustment        CRITICALITY ignore  EXTENSION DL-DPCH-TimingAdjustment                   PRESENCE optional }|
    { ID id-F-DPCH-SlotFormat                       CRITICALITY ignore  EXTENSION F-DPCH-SlotFormat                          PRESENCE optional },
    ...
}

DL-CodeInformationList-RL-AdditionFailureFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-AdditionFailureFDD }}

DL-CodeInformationListIEs-RL-AdditionFailureFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FDD-DL-CodeInformation   CRITICALITY ignore TYPE FDD-DL-CodeInformation     PRESENCE mandatory }
}

DiversityIndication-RL-AdditionFailureFDD ::= CHOICE {
    combining                       Combining-RL-AdditionFailureFDD,
    nonCombining                    NonCombining-RL-AdditionFailureFDD
}

Combining-RL-AdditionFailureFDD ::= SEQUENCE {
    rL-ID                           RL-ID,
    iE-Extensions                   ProtocolExtensionContainer { { CombiningItem-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

CombiningItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DCH-InformationResponse         CRITICALITY ignore  EXTENSION DCH-InformationResponse       PRESENCE optional }|
    { ID id-EDCH-FDD-InformationResponse    CRITICALITY ignore  EXTENSION EDCH-FDD-InformationResponse       PRESENCE optional },
    ...
}

NonCombining-RL-AdditionFailureFDD ::= SEQUENCE {
    dCH-InformationResponse     DCH-InformationResponse,
    iE-Extensions                           ProtocolExtensionContainer { { NonCombiningItem-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

NonCombiningItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-EDCH-FDD-InformationResponse    CRITICALITY ignore  EXTENSION EDCH-FDD-InformationResponse       PRESENCE optional },
    ...
}
```

```
RadioLinkAdditionFailureFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HS-DSCH-serving-cell-change-informationResponse CRITICALITY ignore  EXTENSION HS-DSCH-serving-cell-change-informationResponse
    PRESENCE optional}|
    { ID id-E-DCH-Serving-cell-change-informationResponse   CRITICALITY ignore  EXTENSION E-DCH-Serving-cell-change-informationResponse
    PRESENCE optional}|
    { ID id-MAChs-ResetIndicator                            CRITICALITY ignore  EXTENSION MAChs-ResetIndicator
    PRESENCE optional},
    ...
}


-- *************************************************************
--
-- RADIO LINK ADDITION FAILURE TDD
--
-- *************************************************************

RadioLinkAdditionFailureTDD ::= SEQUENCE {
    protocolIEs                  ProtocolIE-Container     {{RadioLinkAdditionFailureTDD-IEs}},
    protocolExtensions           ProtocolExtensionContainer {{RadioLinkAdditionFailureTDD-Extensions}}                    OPTIONAL,
    ...
}

RadioLinkAdditionFailureTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-CauseLevel-RL-AdditionFailureTDD    CRITICALITY ignore  TYPE CauseLevel-RL-AdditionFailureTDD PRESENCE mandatory }|
    { ID id-CriticalityDiagnostics              CRITICALITY ignore  TYPE CriticalityDiagnostics       PRESENCE optional },
    ...
}

CauseLevel-RL-AdditionFailureTDD ::= CHOICE {
    generalCause        GeneralCauseList-RL-AdditionFailureTDD,
    rLSpecificCause     RLSpecificCauseList-RL-AdditionFailureTDD,
    ...
}

GeneralCauseList-RL-AdditionFailureTDD ::= SEQUENCE {
    cause                     Cause,
    iE-Extensions             ProtocolExtensionContainer { { GeneralCauseItem-RL-AdditionFailureTDD-ExtIEs} }    OPTIONAL,
    ...
}

GeneralCauseItem-RL-AdditionFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RLSpecificCauseList-RL-AdditionFailureTDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD   Unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD,
    iE-Extensions                                              ProtocolExtensionContainer { { RLSpecificCauseItem-RL-AdditionFailureTDD-ExtIEs} }
        OPTIONAL,
    ...
}

RLSpecificCauseItem-RL-AdditionFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

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```
Unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD ::= ProtocolIE-Single-Container { {Unsuccessful-RL-InformationRespItemIE-RL-
AdditionFailureTDD} }

Unsuccessful-RL-InformationRespItemIE-RL-AdditionFailureTDD RNSAP-PROTOCOL-IES ::= {
    { ID    id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD    CRITICALITY ignore    TYPE UnsuccessfulRL-InformationResponse-RL-
AdditionFailureTDD  PRESENCE mandatory}
}

UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    cause                       Cause,
    iE-Extensions               ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD-ExtIEs} } OPTIONAL,
    ...
}

UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkAdditionFailureTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- ****************************************************************
--
-- RADIO LINK DELETION REQUEST
--
-- ****************************************************************

RadioLinkDeletionRequest ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container     {{RadioLinkDeletionRequest-IEs}},
    protocolExtensions          ProtocolExtensionContainer {{RadioLinkDeletionRequest-Extensions}}              OPTIONAL,
    ...
}

RadioLinkDeletionRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationList-RL-DeletionRqst  CRITICALITY notify  TYPE RL-InformationList-RL-DeletionRqst     PRESENCE mandatory   },
    ...
}

RL-InformationList-RL-DeletionRqst          ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-RL-DeletionRqst-
IEs} }

RL-Information-RL-DeletionRqst-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-DeletionRqst     CRITICALITY notify  TYPE RL-Information-RL-DeletionRqst   PRESENCE mandatory   }
}

RL-Information-RL-DeletionRqst ::= SEQUENCE {
    rL-ID                       RL-ID,
    iE-Extensions               ProtocolExtensionContainer { {RL-Information-RL-DeletionRqst-ExtIEs} } OPTIONAL,
    ...
}
```

```
RL-Information-RL-DeletionRqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkDeletionRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- ****************************************************************
--
-- RADIO LINK DELETION RESPONSE
--
-- ****************************************************************

RadioLinkDeletionResponse ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container     {{RadioLinkDeletionResponse-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkDeletionResponse-Extensions}}               OPTIONAL,
    ...
}

RadioLinkDeletionResponse-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-CriticalityDiagnostics       CRITICALITY ignore  TYPE CriticalityDiagnostics       PRESENCE optional },
    ...
}

RadioLinkDeletionResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- ****************************************************************
--
-- RADIO LINK RECONFIGURATION PREPARE FDD
--
-- ****************************************************************

RadioLinkReconfigurationPrepareFDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container     {{RadioLinkReconfigurationPrepareFDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkReconfigurationPrepareFDD-Extensions}}               OPTIONAL,
    ...
}

RadioLinkReconfigurationPrepareFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-AllowedQueuingTime         CRITICALITY reject  TYPE AllowedQueuingTime             PRESENCE optional  } |
    { ID id-UL-DPCH-Information-RL-ReconfPrepFDD             CRITICALITY reject  TYPE UL-DPCH-Information-RL-ReconfPrepFDD     PRESENCE optional }
|
    { ID id-DL-DPCH-Information-RL-ReconfPrepFDD             CRITICALITY reject  TYPE DL-DPCH-Information-RL-ReconfPrepFDD     PRESENCE optional }
|
    { ID id-FDD-DCHs-to-Modify      CRITICALITY reject  TYPE FDD-DCHs-to-Modify      PRESENCE optional   } |
    { ID id-DCHs-to-Add-FDD     CRITICALITY reject  TYPE DCH-FDD-Information       PRESENCE optional   } |
    { ID id-DCH-DeleteList-RL-ReconfPrepFDD    CRITICALITY reject  TYPE DCH-DeleteList-RL-ReconfPrepFDD     PRESENCE optional } |
    { ID id-RL-InformationList-RL-ReconfPrepFDD CRITICALITY reject  TYPE RL-InformationList-RL-ReconfPrepFDD PRESENCE optional }|
    { ID id-Transmission-Gap-Pattern-Sequence-Information   CRITICALITY reject  TYPE Transmission-Gap-Pattern-Sequence-Information PRESENCE
optional },
    ...
```

```
}

UL-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    ul-ScramblingCode              UL-ScramblingCode       OPTIONAL,
    ul-SIRTarget                   UL-SIR                  OPTIONAL,
    minUL-ChannelisationCodeLength MinUL-ChannelisationCodeLength  OPTIONAL,
    maxNrOfUL-DPDCHs               MaxNrOfUL-DPCHs         OPTIONAL
    -- This IE shall be present if minUL-ChannelisationCodeLength equals to 4 --,
    ul-PunctureLimit               PunctureLimit           OPTIONAL,
    tFCS                           TFCS    OPTIONAL,
    ul-DPCCH-SlotFormat            UL-DPCCH-SlotFormat     OPTIONAL,
    diversityMode                  DiversityMode           OPTIONAL,
    not-Used-sSDT-CellIDLength     NULL         OPTIONAL,
    not-Used-s-FieldLength         NULL            OPTIONAL,
    iE-Extensions                  ProtocolExtensionContainer { {UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-DPDCHIndicatorEDCH   CRITICALITY reject      EXTENSION UL-DPDCHIndicatorEDCH PRESENCE optional },
    ...
}

DL-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    tFCS                           TFCS    OPTIONAL,
    dl-DPCH-SlotFormat             DL-DPCH-SlotFormat      OPTIONAL,
    nrOfDLchannelisationcodes      NrOfDLchannelisationcodes  OPTIONAL,
    tFCI-SignallingMode            TFCI-SignallingMode     OPTIONAL,
    tFCI-Presence                  TFCI-Presence           OPTIONAL
    -- This IE shall be present if DL DPCH Slot Format IE is from 12 to 16 --,
    multiplexingPosition           MultiplexingPosition       OPTIONAL,
    limitedPowerIncrease           LimitedPowerIncrease       OPTIONAL,
    iE-Extensions                  ProtocolExtensionContainer { {DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-DPCH-Power-Information-RL-ReconfPrepFDD CRITICALITY reject  EXTENSION DL-DPCH-Power-Information-RL-ReconfPrepFDD  PRESENCE optional
    },
    ...
}

DL-DPCH-Power-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    powerOffsetInformation                 PowerOffsetInformation-RL-ReconfPrepFDD,
    fdd-TPC-DownlinkStepSize                FDD-TPC-DownlinkStepSize,
    innerLoopDLPCStatus                     InnerLoopDLPCStatus,
    iE-Extensions                          ProtocolExtensionContainer { { DL-DPCH-Power-Information-RL-ReconfPrepFDD-ExtIEs } }  OPTIONAL,
    ...
}

DL-DPCH-Power-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
PowerOffsetInformation-RL-ReconfPrepFDD ::= SEQUENCE {
    pO1-ForTFCI-Bits                        PowerOffset,
    pO2-ForTPC-Bits                         PowerOffset,
    pO3-ForPilotBits                        PowerOffset,
    iE-Extensions                           ProtocolExtensionContainer { { PowerOffsetInformation-RL-ReconfPrepFDD-ExtIEs} }OPTIONAL,
    ...
}

PowerOffsetInformation-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-DeleteList-RL-ReconfPrepFDD            ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepFDD

DCH-DeleteItem-RL-ReconfPrepFDD ::= SEQUENCE {
    dCH-ID                      DCH-ID,
    iE-Extensions               ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-ReconfPrepFDD        ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-RL-ReconfPrepFDD-
IEs} }

RL-Information-RL-ReconfPrepFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-ReconfPrepFDD    CRITICALITY reject  TYPE RL-Information-RL-ReconfPrepFDD     PRESENCE mandatory   }
}

RL-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    rL-ID                   RL-ID,
    not-Used-sSDT-Indication            NULL      OPTIONAL,
    not-Used-sSDT-CellIdentity          NULL      OPTIONAL,
    transmitDiversityIndicator      TransmitDiversityIndicator      OPTIONAL,
    -- This IE shall be present if Diversity Mode IE is present in UL DPCH Information IE and is not equal to "none"
    iE-Extensions                   ProtocolExtensionContainer { {RL-Information-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DLReferencePower                 CRITICALITY ignore  EXTENSION   DL-Power            PRESENCE optional }|
    { ID id-RL-Specific-DCH-Info             CRITICALITY ignore  EXTENSION RL-Specific-DCH-Info  PRESENCE    optional }|
    { ID id-DL-DPCH-TimingAdjustment         CRITICALITY reject  EXTENSION DL-DPCH-TimingAdjustment PRESENCE optional }|
    { ID id-Phase-Reference-Update-Indicator CRITICALITY ignore  EXTENSION Phase-Reference-Update-Indicator  PRESENCE optional }|
    { ID id-RL-Specific-EDCH-Information     CRITICALITY reject      EXTENSION RL-Specific-EDCH-Information     PRESENCE optional }|
    { ID id-EDCH-RL-Indication               CRITICALITY reject      EXTENSION EDCH-RL-Indication              PRESENCE optional },
    ...
}

RadioLinkReconfigurationPrepareFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCH-FDD-Information                    CRITICALITY reject  EXTENSION HSDSCH-FDD-Information            PRESENCE optional}|
    { ID id-HSDSCH-Information-to-Modify              CRITICALITY reject  EXTENSION HSDSCH-Information-to-Modify      PRESENCE optional}|
```

```
   { ID id-HSDSCH-MACdFlows-to-Add                   CRITICALITY reject   EXTENSION HSDSCH-MACdFlows-Information          PRESENCE optional}|
   { ID id-HSDSCH-MACdFlows-to-Delete                CRITICALITY reject   EXTENSION HSDSCH-MACdFlows-to-Delete           PRESENCE optional}|
   { ID id-HSPDSCH-RL-ID                             CRITICALITY reject   EXTENSION RL-ID                                PRESENCE optional}|
   { ID id-EDPCH-Information                         CRITICALITY reject   EXTENSION EDPCH-Information-RLReconfPrepare-FDD
   PRESENCE optional}|
   { ID id-EDCH-FDD-Information                      CRITICALITY reject   EXTENSION EDCH-FDD-Information                 PRESENCE optional}|
   { ID id-EDCH-FDD-Information-To-Modify            CRITICALITY reject   EXTENSION EDCH-FDD-Information-To-Modify       PRESENCE optional}|
   { ID id-EDCH-MACdFlows-To-Add                     CRITICALITY reject   EXTENSION EDCH-MACdFlows-Information           PRESENCE optional}|
   { ID id-EDCH-MACdFlows-To-Delete                  CRITICALITY reject   EXTENSION EDCH-MACdFlows-To-Delete            PRESENCE optional}|
   { ID id-Serving-EDCHRL-Id                         CRITICALITY reject   EXTENSION EDCH-Serving-RL                      PRESENCE optional }|
   { ID id-F-DPCH-Information-RL-ReconfPrepFDD       CRITICALITY reject   EXTENSION F-DPCH-Information-RL-ReconfPrepFDD  PRESENCE optional}|
   { ID id-Fast-Reconfiguration-Mode                 CRITICALITY ignore   EXTENSION Fast-Reconfiguration-Mode           PRESENCE optional }|
   { ID id-CPC-Information                           CRITICALITY reject   EXTENSION CPC-Information                      PRESENCE optional},
   ...
}

F-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    powerOffsetInformation           PowerOffsetInformation-F-DPCH-RL-ReconfPrepFDD,
    fdd-dl-TPC-DownlinkStepSize       FDD-TPC-DownlinkStepSize,
    limitedPowerIncrease              LimitedPowerIncrease,
    innerLoopDLPCStatus               InnerLoopDLPCStatus,
    iE-Extensions                     ProtocolExtensionContainer { { F-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} }           OPTIONAL,
    ...
}

F-DPCH-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-F-DPCH-SlotFormatSupportRequest     CRITICALITY reject          EXTENSION F-DPCH-SlotFormatSupportRequest     PRESENCE optional }|
    { ID id-F-DPCH-SlotFormat                   CRITICALITY ignore  EXTENSION F-DPCH-SlotFormat     PRESENCE optional},
    ...
}

PowerOffsetInformation-F-DPCH-RL-ReconfPrepFDD ::= SEQUENCE {
    po2-ForTPC-Bits                  PowerOffset,
    --This IE shall be ignored by DRNS
    iE-Extensions                    ProtocolExtensionContainer { { PowerOffsetInformation-F-DPCH-RL-ReconfPrepFDD-ExtIEs} }    OPTIONAL,
    ...
}

PowerOffsetInformation-F-DPCH-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


-- *************************************************************
--
-- RADIO LINK RECONFIGURATION PREPARE TDD
--
-- *************************************************************

RadioLinkReconfigurationPrepareTDD ::= SEQUENCE {
    protocolIEs                      ProtocolIE-Container       {{RadioLinkReconfigurationPrepareTDD-IEs}},
    protocolExtensions               ProtocolExtensionContainer {{RadioLinkReconfigurationPrepareTDD-Extensions}}                      OPTIONAL,
    ...
}
```

```
RadioLinkReconfigurationPrepareTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-AllowedQueuingTime          CRITICALITY reject  TYPE AllowedQueuingTime          PRESENCE optional  } |
    { ID id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD   CRITICALITY notify  TYPE UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD PRESENCE optional
    } |
    { ID id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD   CRITICALITY notify  TYPE UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD PRESENCE
optional   } |
    { ID id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD   CRITICALITY notify  TYPE UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD PRESENCE
optional   } |
    { ID id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD   CRITICALITY notify  TYPE DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD PRESENCE optional
    } |
    { ID id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD   CRITICALITY notify  TYPE DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD PRESENCE
optional   } |
    { ID id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD   CRITICALITY notify  TYPE DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD PRESENCE
optional   } |
    { ID id-TDD-DCHs-to-Modify      CRITICALITY reject  TYPE TDD-DCHs-to-Modify      PRESENCE optional  } |
    { ID id-DCHs-to-Add-TDD     CRITICALITY reject  TYPE DCH-TDD-Information      PRESENCE optional  } |
    { ID id-DCH-DeleteList-RL-ReconfPrepTDD    CRITICALITY reject  TYPE DCH-DeleteList-RL-ReconfPrepTDD    PRESENCE optional }|
    { ID id-DSCH-ModifyList-RL-ReconfPrepTDD   CRITICALITY reject  TYPE DSCH-ModifyList-RL-ReconfPrepTDD    PRESENCE optional } |
    { ID id-DSCHs-to-Add-TDD        CRITICALITY reject  TYPE DSCH-TDD-Information         PRESENCE optional } |
    { ID id-DSCH-DeleteList-RL-ReconfPrepTDD   CRITICALITY reject  TYPE DSCH-DeleteList-RL-ReconfPrepTDD    PRESENCE optional } |
    { ID id-USCH-ModifyList-RL-ReconfPrepTDD   CRITICALITY reject  TYPE USCH-ModifyList-RL-ReconfPrepTDD    PRESENCE optional } |
    { ID id-USCHs-to-Add        CRITICALITY reject  TYPE USCH-Information         PRESENCE optional  } |
    { ID id-USCH-DeleteList-RL-ReconfPrepTDD   CRITICALITY reject  TYPE USCH-DeleteList-RL-ReconfPrepTDD    PRESENCE optional },
    ...
}

UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD       ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
AddInformation-RL-ReconfPrepTDD-IEs} }

UL-CCTrCH-AddInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-AddInformation-RL-ReconfPrepTDD  CRITICALITY notify  TYPE UL-CCTrCH-AddInformation-RL-ReconfPrepTDD  PRESENCE mandatory   }
}

UL-CCTrCH-AddInformation-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID               CCTrCH-ID,
    tFCS                    TFCS,
    tFCI-Coding             TFCI-Coding,
    punctureLimit               PunctureLimit,
    iE-Extensions               ProtocolExtensionContainer { {UL-CCTrCH-AddInformation-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCH-AddInformation-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-SIRTarget       CRITICALITY reject      EXTENSION      UL-SIR      PRESENCE optional}|
    -- This IE shall be mandatory for 1.28Mcps TDD, not applicable for 3.84Mcps TDD or 7.68Mcps TDD.
    { ID id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD CRITICALITY reject  EXTENSION TDD-TPC-UplinkStepSize-LCR  PRESENCE optional
      },
    -- Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD or 7.68Mcps TDD
    ...
}

UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD       ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
ModifyInformation-RL-ReconfPrepTDD-IEs} }
```

```
UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD   CRITICALITY notify  TYPE UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD PRESENCE
mandatory    }
}

UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID                 CCTrCH-ID,
    tFCS                      TFCS        OPTIONAL,
    tFCI-Coding               TFCI-Coding            OPTIONAL,
    punctureLimit             PunctureLimit          OPTIONAL,
    iE-Extensions             ProtocolExtensionContainer { {UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-SIRTarget      CRITICALITY reject      EXTENSION      UL-SIR     PRESENCE optional}|
    -- This IE shall be applicable for 1.28Mcps TDD only.
    { ID id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD  CRITICALITY reject  EXTENSION TDD-TPC-UplinkStepSize-LCR    PRESENCE
    optional    },
    -- Applicable to 1.28Mcps TDD only
    ...
}

UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD        ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
DeleteInformation-RL-ReconfPrepTDD-IEs} }

UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD   CRITICALITY notify  TYPE UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD PRESENCE
mandatory    }
}

UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID                 CCTrCH-ID,
    iE-Extensions             ProtocolExtensionContainer { {UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD        ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
AddInformation-RL-ReconfPrepTDD-IEs} }

DL-CCTrCH-AddInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD   CRITICALITY notify  TYPE DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD PRESENCE
mandatory    }
}

DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID                 CCTrCH-ID,
    tFCS                      TFCS,
    tFCI-Coding               TFCI-Coding,
```

```
    punctureLimit                       PunctureLimit,
    cCTrCH-TPCList                       CCTrCH-TPCAddList-RL-ReconfPrepTDD  OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { {DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD   CRITICALITY reject  EXTENSION  TDD-TPC-DownlinkStepSize   PRESENCE optional
      },
    ...
}

CCTrCH-TPCAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCAddItem-RL-ReconfPrepTDD

CCTrCH-TPCAddItem-RL-ReconfPrepTDD   ::= SEQUENCE {
    cCTrCH-ID                        CCTrCH-ID,
    iE-Extensions                    ProtocolExtensionContainer { { CCTrCH-TPCAddItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

CCTrCH-TPCAddItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD         ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
ModifyInformation-RL-ReconfPrepTDD-IEs} }

DL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD   CRITICALITY notify  TYPE DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD  PRESENCE
mandatory   }
}

DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID                        CCTrCH-ID,
    tFCS                             TFCS          OPTIONAL,
    tFCI-Coding                      TFCI-Coding            OPTIONAL,
    punctureLimit                    PunctureLimit          OPTIONAL,
    cCTrCH-TPCList                   CCTrCH-TPCModifyList-RL-ReconfPrepTDD       OPTIONAL,
    iE-Extensions                    ProtocolExtensionContainer { {DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD  CRITICALITY reject    EXTENSION TDD-TPC-DownlinkStepSize   PRESENCE
    optional},
    ...
}

CCTrCH-TPCModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCModifyItem-RL-ReconfPrepTDD

CCTrCH-TPCModifyItem-RL-ReconfPrepTDD    ::= SEQUENCE {
    cCTrCH-ID                        CCTrCH-ID,
    iE-Extensions                    ProtocolExtensionContainer { { CCTrCH-TPCModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
```

```
}

CCTrCH-TPCModifyItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD        ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
DeleteInformation-RL-ReconfPrepTDD-IEs} }

DL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD    CRITICALITY notify  TYPE DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD  PRESENCE
mandatory   }
}

DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID                    CCTrCH-ID,
    iE-Extensions                ProtocolExtensionContainer { {DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-DeleteList-RL-ReconfPrepTDD             ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepTDD

DCH-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dCH-ID                    DCH-ID,
    iE-Extensions             ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCH-ModifyItem-RL-ReconfPrepTDD

DSCH-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dSCH-ID                          DSCH-ID,
    dl-ccTrCHID                      CCTrCH-ID                    OPTIONAL,
    trChSourceStatisticsDescriptor   TrCH-SrcStatisticsDescr OPTIONAL,
    transportFormatSet               TransportFormatSet          OPTIONAL,
    allocationRetentionPriority      AllocationRetentionPriority  OPTIONAL,
    schedulingPriorityIndicator      SchedulingPriorityIndicator  OPTIONAL,
    bLER                             BLER                         OPTIONAL,
    transportBearerRequestIndicator  TransportBearerRequestIndicator,
    iE-Extensions                    ProtocolExtensionContainer { {DSCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

DSCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TrafficClass                     CRITICALITY ignore  EXTENSION TrafficClass                PRESENCE optional }|
    { ID id-BindingID                        CRITICALITY ignore     EXTENSION   BindingID              PRESENCE optional }|
```

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```
        -- Shall be ignored if bearer establishment with ALCAP.
        { ID id-TransportLayerAddress         CRITICALITY ignore     EXTENSION    TransportLayerAddress    PRESENCE optional }|
        -- Shall be ignored if bearer establishment with ALCAP.
        { ID id-TnlQos                        CRITICALITY ignore     EXTENSION    TnlQos                   PRESENCE optional },
        -- Shall be ignored if bearer establishment with ALCAP.
        ...
}

DSCH-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCH-DeleteItem-RL-ReconfPrepTDD

DSCH-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dSCH-ID                         DSCH-ID,
    iE-Extensions                   ProtocolExtensionContainer { {DSCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

DSCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

USCH-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCH-ModifyItem-RL-ReconfPrepTDD

USCH-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    uSCH-ID                         USCH-ID,
    ul-ccTrCHID                     CCTrCH-ID                       OPTIONAL,
    trChSourceStatisticsDescriptor  TrCH-SrcStatisticsDescr OPTIONAL,
    transportFormatSet              TransportFormatSet              OPTIONAL,
    allocationRetentionPriority     AllocationRetentionPriority     OPTIONAL,
    schedulingPriorityIndicator     SchedulingPriorityIndicator     OPTIONAL,
    bLER                            BLER                            OPTIONAL,
    transportBearerRequestIndicator TransportBearerRequestIndicator,
    rb-Info                         RB-Info                         OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {USCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

USCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TrafficClass          CRITICALITY ignore  EXTENSION TrafficClass              PRESENCE optional }|
    { ID id-BindingID             CRITICALITY ignore  EXTENSION  BindingID   PRESENCE        optional           }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress         CRITICALITY ignore     EXTENSION    TransportLayerAddress    PRESENCE   optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TnlQos                        CRITICALITY    ignore     EXTENSION   TnlQos     PRESENCE        optional },
    ...
}

USCH-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCH-DeleteItem-RL-ReconfPrepTDD

USCH-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    uSCH-ID                         USCH-ID,
    iE-Extensions                   ProtocolExtensionContainer { {USCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}
```

```
USCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkReconfigurationPrepareTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-PrimaryCCPCH-RSCP-RL-ReconfPrepTDD              CRITICALITY ignore    EXTENSION    PrimaryCCPCH-RSCP PRESENCE optional }|
    { ID id-DL-TimeSlot-ISCP-Info-RL-ReconfPrepTDD         CRITICALITY ignore    EXTENSION    DL-TimeSlot-ISCP-Info   PRESENCE optional }|
    { ID id-DL-Timeslot-ISCP-LCR-Information-RL-ReconfPrepTDD   CRITICALITY ignore    EXTENSION    DL-TimeSlot-ISCP-LCR-Information PRESENCE
optional    }|
    { ID id-HSDSCH-TDD-Information                          CRITICALITY reject    EXTENSION HSDSCH-TDD-Information    PRESENCE optional}|
    { ID id-HSDSCH-Information-to-Modify                    CRITICALITY reject    EXTENSION HSDSCH-Information-to-Modify    PRESENCE
optional}|
    { ID id-HSDSCH-MACdFlows-to-Add          CRITICALITY reject    EXTENSION HSDSCH-MACdFlows-Information          PRESENCE optional}|
    { ID id-HSDSCH-MACdFlows-to-Delete       CRITICALITY reject    EXTENSION HSDSCH-MACdFlows-to-Delete      PRESENCE optional}|
    { ID id-HSPDSCH-RL-ID                    CRITICALITY reject    EXTENSION RL-ID             PRESENCE optional}|
    { ID id-PDSCH-RL-ID          CRITICALITY ignore    EXTENSION RL-ID     PRESENCE optional }|
    { ID id-UL-Synchronisation-Parameters-LCR        CRITICALITY ignore    EXTENSION    UL-Synchronisation-Parameters-LCR      PRESENCE
    optional    }|  -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
    { ID id-RL-Information-RL-ReconfPrepTDD    CRITICALITY ignore    EXTENSION    RL-Information-RL-ReconfPrepTDD    PRESENCE    optional }|
    { ID id-PrimaryCCPCH-RSCP-Delta    CRITICALITY ignore    EXTENSION    PrimaryCCPCH-RSCP-Delta    PRESENCE    optional }|
    { ID id-E-DCH-Information-Reconfig         CRITICALITY reject    EXTENSION    E-DCH-Information-Reconfig         PRESENCE optional }|
    { ID id-E-DCH-Serving-RL-ID               CRITICALITY reject    EXTENSION RL-ID                       PRESENCE optional }|
    { ID id-E-DCH-768-Information-Reconfig     CRITICALITY reject    EXTENSION E-DCH-768-Information-Reconfig     PRESENCE optional }|
    { ID id-E-DCH-LCR-Information-Reconfig     CRITICALITY reject    EXTENSION E-DCH-LCR-Information-Reconfig     PRESENCE optional },
    ...
}


RL-Information-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF RL-InformationIE-RL-ReconfPrepTDD

RL-InformationIE-RL-ReconfPrepTDD ::= SEQUENCE {
    rL-ID                          RL-ID,
    rL-Specific-DCH-Info           RL-Specific-DCH-Info           OPTIONAL,
    iE-Extensions                  ProtocolExtensionContainer { { RL-InformationIE-RL-ReconfPrepTDD-ExtIEs} }    OPTIONAL,
    ...
}

RL-InformationIE-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION READY FDD
--
-- **************************************************************

RadioLinkReconfigurationReadyFDD ::= SEQUENCE {
    protocolIEs                    ProtocolIE-Container      {{RadioLinkReconfigurationReadyFDD-IEs}},
    protocolExtensions             ProtocolExtensionContainer {{RadioLinkReconfigurationReadyFDD-Extensions}}                OPTIONAL,
    ...
}

RadioLinkReconfigurationReadyFDD-IEs RNSAP-PROTOCOL-IES ::= {
```

```
    { ID id-RL-InformationResponseList-RL-ReconfReadyFDD    CRITICALITY ignore  TYPE RL-InformationResponseList-RL-ReconfReadyFDD    PRESENCE
optional    } |
    { ID id-CriticalityDiagnostics           CRITICALITY ignore  TYPE CriticalityDiagnostics       PRESENCE optional },
    ...
}

RL-InformationResponseList-RL-ReconfReadyFDD         ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationResponse-
RL-ReconfReadyFDD-IEs} }

RL-InformationResponse-RL-ReconfReadyFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseItem-RL-ReconfReadyFDD    CRITICALITY ignore  TYPE RL-InformationResponseItem-RL-ReconfReadyFDD    PRESENCE
mandatory    }
}

RL-InformationResponseItem-RL-ReconfReadyFDD ::= SEQUENCE {
    rL-ID                          RL-ID,
    max-UL-SIR                     UL-SIR           OPTIONAL,
    min-UL-SIR                     UL-SIR           OPTIONAL,
    maximumDLTxPower               DL-Power         OPTIONAL,
    minimumDLTxPower               DL-Power         OPTIONAL,
    not-Used-secondary-CCPCH-Info              NULL      OPTIONAL,
    dl-CodeInformationList         DL-CodeInformationList-RL-ReconfReadyFDD        OPTIONAL,
    dCHInformationResponse         DCH-InformationResponseList-RL-ReconfReadyFDD   OPTIONAL,
    not-Used-dSCHsToBeAddedOrModified    NULL          OPTIONAL,
    iE-Extensions                  ProtocolExtensionContainer { {RL-InformationResponseItem-RL-ReconfReadyFDD-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationResponseItem-RL-ReconfReadyFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-PowerBalancing-UpdatedIndicator          CRITICALITY ignore  EXTENSION DL-PowerBalancing-UpdatedIndicator    PRESENCE optional}|
    { ID id-Primary-CPICH-Usage-For-Channel-Estimation CRITICALITY ignore  EXTENSION Primary-CPICH-Usage-For-Channel-Estimation  PRESENCE
optional }|
    { ID id-Secondary-CPICH-Information-Change          CRITICALITY ignore  EXTENSION Secondary-CPICH-Information-Change        PRESENCE
optional }|
    { ID id-EDCH-FDD-InformationResponse               CRITICALITY ignore  EXTENSION EDCH-FDD-InformationResponse            PRESENCE optional
}|
    { ID id-EDCH-RLSet-Id                              CRITICALITY ignore  EXTENSION RL-Set-ID                                PRESENCE
optional }|
    { ID id-EDCH-FDD-DL-ControlChannelInformation       CRITICALITY ignore  EXTENSION EDCH-FDD-DL-ControlChannelInformation    PRESENCE
optional }|
    { ID id-F-DPCH-SlotFormat                          CRITICALITY ignore  EXTENSION F-DPCH-SlotFormat                        PRESENCE optional
},
...
}

DL-CodeInformationList-RL-ReconfReadyFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-ReconfReadyFDD }}

DL-CodeInformationListIEs-RL-ReconfReadyFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FDD-DL-CodeInformation   CRITICALITY ignore TYPE FDD-DL-CodeInformation     PRESENCE mandatory }
}

DCH-InformationResponseList-RL-ReconfReadyFDD                ::= ProtocolIE-Single-Container { {DCH-InformationResponseListIEs-RL-ReconfReadyFDD} }

DCH-InformationResponseListIEs-RL-ReconfReadyFDD RNSAP-PROTOCOL-IES ::= {
```

```
    { ID id-DCH-InformationResponse     CRITICALITY ignore  TYPE DCH-InformationResponse      PRESENCE mandatory }
}

RadioLinkReconfigurationReadyFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCH-RNTI                          CRITICALITY ignore     EXTENSION HSDSCH-RNTI                          PRESENCE optional }|
    { ID id-HSDSCH-FDD-Information-Response      CRITICALITY ignore     EXTENSION HSDSCH-FDD-Information-Response      PRESENCE optional }|
    { ID id-MAChs-ResetIndicator                CRITICALITY ignore     EXTENSION MAChs-ResetIndicator                PRESENCE optional }|
    { ID id-Fast-Reconfiguration-Permission     CRITICALITY ignore     EXTENSION Fast-Reconfiguration-Permission     PRESENCE optional }|
    { ID id-Continuous-Packet-Connectivity-HS-SCCH-Less-Information-Response        CRITICALITY ignore    EXTENSION Continuous-Packet-Connectivity-
HS-SCCH-Less-Information-Response       PRESENCE optional },
    ...
}

-- ****************************************************************
--
-- RADIO LINK RECONFIGURATION READY TDD
--
-- ****************************************************************

RadioLinkReconfigurationReadyTDD ::= SEQUENCE {
    protocolIEs              ProtocolIE-Container       {{RadioLinkReconfigurationReadyTDD-IEs}},
    protocolExtensions       ProtocolExtensionContainer {{RadioLinkReconfigurationReadyTDD-Extensions}}                OPTIONAL,
    ...
}

RadioLinkReconfigurationReadyTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponse-RL-ReconfReadyTDD
                        CRITICALITY ignore  TYPE RL-InformationResponse-RL-ReconfReadyTDD   PRESENCE optional  } |
    --This RL-InformationResponse-RL-ReconfReadyTDD is for the first RL repetition in the list.
    --Repetitions 2 and on are defined in Multiple-RL-InformationResponse-RL-ReconfReadyTDD.
    { ID id-CriticalityDiagnostics         CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

RL-InformationResponse-RL-ReconfReadyTDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    max-UL-SIR                  UL-SIR          OPTIONAL,
    min-UL-SIR                  UL-SIR          OPTIONAL,
    maximumDLTxPower            DL-Power        OPTIONAL,
    minimumDLTxPower            DL-Power        OPTIONAL,
    secondary-CCPCH-Info-TDD    Secondary-CCPCH-Info-TDD   OPTIONAL,
    ul-CCTrCH-Information       UL-CCTrCH-InformationList-RL-ReconfReadyTDD    OPTIONAL,
    dl-CCTrCH-Information       DL-CCTrCH-InformationList-RL-ReconfReadyTDD OPTIONAL,
    dCHInformationResponse      DCH-InformationResponseList-RL-ReconfReadyTDD   OPTIONAL,
    dSCHsToBeAddedOrModified    DSCHToBeAddedOrModified-RL-ReconfReadyTDD   OPTIONAL,
    uSCHsToBeAddedOrModified    USCHToBeAddedOrModified-RL-ReconfReadyTDD   OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {RL-InformationResponse-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationResponse-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-TimingAdvanceCtrl-LCR                         CRITICALITY ignore  EXTENSION UL-TimingAdvanceCtrl-LCR         PRESENCE optional }|
    --For 1.28Mcps TDD only
    { ID id-secondary-LCR-CCPCH-Info-TDD                     CRITICALITY ignore  EXTENSION Secondary-LCR-CCPCH-Info-TDD     PRESENCE optional }|
```

```
    --For 1.28Mcps TDD only
    { ID id-secondary-CCPCH-Info-RL-ReconfReadyTDD768      CRITICALITY ignore  EXTENSION Secondary-CCPCH-Info-TDD768      PRESENCE optional }|
    { ID id-UARFCNforNt                                    CRITICALITY ignore  EXTENSION UARFCN                           PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only
    ...
}

UL-CCTrCH-InformationList-RL-ReconfReadyTDD        ::= ProtocolIE-Single-Container {{UL-CCTrCHInformationListIEs-RL-ReconfReadyTDD}}

UL-CCTrCHInformationListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationListIE-RL-ReconfReadyTDD  CRITICALITY ignore  TYPE UL-CCTrCHInformationListIE-RL-ReconfReadyTDD    PRESENCE
mandatory }
}

UL-CCTrCHInformationListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationItem-RL-ReconfReadyTDD

UL-CCTrCH-InformationItem-RL-ReconfReadyTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    ul-DPCH-AddInformation       UL-DPCH-InformationAddList-RL-ReconfReadyTDD          OPTIONAL,
    --For 3.84Mcps TDD only
    ul-DPCH-ModifyInformation    UL-DPCH-InformationModifyList-RL-ReconfReadyTDD       OPTIONAL,
    ul-DPCH-DeleteInformation    UL-DPCH-InformationDeleteList-RL-ReconfReadyTDD       OPTIONAL,
    iE-Extensions                ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD    CRITICALITY ignore    EXTENSION UL-DPCH-LCR-InformationAddList-RL-
ReconfReadyTDD      PRESENCE optional }|
    --For 1.28Mcps TDD only
    { ID id-UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD768     CRITICALITY ignore    EXTENSION UL-DPCH-InformationAddList-RL-
ReconfReadyTDD768       PRESENCE optional },
    --For 7.68Mcps TDD only
    ...
}

UL-DPCH-LCR-InformationAddList-RL-ReconfReadyTDD ::= SEQUENCE {
    repetitionPeriod             RepetitionPeriod,
    repetitionLength             RepetitionLength,
    tDD-DPCHOffset               TDD-DPCHOffset,
    uL-TimeslotLCR-Info          UL-TimeslotLCR-Information,
    iE-Extensions                ProtocolExtensionContainer { {UL-DPCH-LCR-InformationAddItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-LCR-InformationAddItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-InformationAddList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{UL-DPCH-InformationAddListIEs-RL-ReconfReadyTDD}}

UL-DPCH-InformationAddListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD   CRITICALITY ignore TYPE UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD     PRESENCE
optional }
```

```
}

UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    rxTimingDeviationForTA          RxTimingDeviationForTA           OPTIONAL,
    uL-Timeslot-Information         UL-Timeslot-Information,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-InformationAddItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-InformationAddItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RxTimingDeviationForTAext        CRITICALITY ignore      EXTENSION RxTimingDeviationForTAext    PRESENCE optional },
    ...
}

UL-DPCH-InformationAddList-RL-ReconfReadyTDD768 ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    rxTimingDeviationForTA768       RxTimingDeviationForTA768            OPTIONAL,
    uL-Timeslot-Information768       UL-Timeslot-Information768,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-InformationAddItem-RL-ReconfReadyTDD768-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-InformationAddItem-RL-ReconfReadyTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-InformationModifyList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{UL-DPCH-InformationModifyListIEs-RL-ReconfReadyTDD}}

UL-DPCH-InformationModifyListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD   CRITICALITY ignore  TYPE UL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD
    PRESENCE mandatory }
}

UL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod           OPTIONAL,
    repetitionLength                RepetitionLength           OPTIONAL,
    tDD-DPCHOffset                  TDD-DPCHOffset             OPTIONAL,
    uL-Timeslot-InformationModifyList-RL-ReconfReadyTDD        UL-Timeslot-InformationModifyList-RL-ReconfReadyTDD      OPTIONAL,
    --For 3.84Mcps TDD only
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD   CRITICALITY ignore     EXTENSION  UL-TimeslotLCR-InformationModifyList-RL-
ReconfReadyTDD       PRESENCE optional }|
    --For 1.28Mcps TDD only
    { ID id-UL-Timeslot-InformationModifyList-RL-ReconfReadyTDD768    CRITICALITY ignore EXTENSION  UL-Timeslot-InformationModifyList-RL-
ReconfReadyTDD768        PRESENCE optional },
```

```
   --For 7.68Mcps TDD only
...
}

UL-TimeslotLCR-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfTsLCR)) OF UL-TimeslotLCR-InformationModifyItem-RL-
ReconfReadyTDD

UL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    timeSlotLCR                     TimeSlotLCR,
    midambleShiftLCR                MidambleShiftLCR              OPTIONAL,
    tFCI-Presence                   TFCI-Presence            OPTIONAL,
    tDD-uL-Code-LCR-Information          TDD-UL-Code-LCR-InformationModifyList-RL-ReconfReadyTDD      OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

TDD-UL-Code-LCR-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfDPCHsLCR)) OF TDD-UL-Code-LCR-InformationModifyItem-RL-
ReconfReadyTDD

TDD-UL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    dPCH-ID                         DPCH-ID,
    tDD-ChannelisationCodeLCR           TDD-ChannelisationCodeLCR        OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {TDD-UL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

TDD-UL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TDD-UL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD   CRITICALITY   reject   EXTENSION TDD-UL-DPCH-TimeSlotFormat-LCR
PRESENCE  optional},
    ...
}

UL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Timeslot-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD

UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    timeSlot                        TimeSlot,
    midambleShiftAndBurstType               MidambleShiftAndBurstType               OPTIONAL,
    tFCI-Presence                   TFCI-Presence            OPTIONAL,
    uL-Code-Information         TDD-UL-Code-InformationModifyList-RL-ReconfReadyTDD          OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-UL-Code-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfDPCHs)) OF TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD

TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
```

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```
    dPCH-ID                        DPCH-ID,
    tDD-ChannelisationCode         TDD-ChannelisationCode      OPTIONAL,
    iE-Extensions                  ProtocolExtensionContainer { {TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Timeslot-InformationModifyList-RL-ReconfReadyTDD768::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD768

UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD768 ::= SEQUENCE {
    timeSlot                       TimeSlot,
    midambleShiftAndBurstType768   MidambleShiftAndBurstType768            OPTIONAL,
    tFCI-Presence                  TFCI-Presence           OPTIONAL,
    uL-Code-Information768          TDD-UL-Code-InformationModifyList-RL-ReconfReadyTDD768       OPTIONAL,
    iE-Extensions                  ProtocolExtensionContainer { {UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD768-ExtIEs} } OPTIONAL,
    ...
}

UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-UL-Code-InformationModifyList-RL-ReconfReadyTDD768::= SEQUENCE ( SIZE (1..maxNrOfDPCHs768)) OF TDD-UL-Code-InformationModifyItem-RL-
ReconfReadyTDD768

TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD768 ::= SEQUENCE {
    dPCH-ID                        DPCH-ID,
    tDD-ChannelisationCode768      TDD-ChannelisationCode768       OPTIONAL,
    iE-Extensions                  ProtocolExtensionContainer { {TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD768-ExtIEs} } OPTIONAL,
    ...
}

TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


UL-DPCH-InformationDeleteList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{UL-DPCH-InformationDeleteListIEs-RL-ReconfReadyTDD}}

UL-DPCH-InformationDeleteListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD   CRITICALITY ignore  TYPE UL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD
    PRESENCE mandatory }
}

UL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfDPCHs)) OF UL-DPCH-InformationDeleteItem-RL-ReconfReadyTDD

UL-DPCH-InformationDeleteItem-RL-ReconfReadyTDD ::= SEQUENCE {
    dPCH-ID                   DPCH-ID,
    iE-Extensions              ProtocolExtensionContainer { {UL-DPCH-InformationDeleteList-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}
```

```
UL-DPCH-InformationDeleteList-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationList-RL-ReconfReadyTDD           ::= ProtocolIE-Single-Container {{DL-CCTrCHInformationListIEs-RL-ReconfReadyTDD}}

DL-CCTrCHInformationListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationListIE-RL-ReconfReadyTDD   CRITICALITY ignore  TYPE DL-CCTrCHInformationListIE-RL-ReconfReadyTDD     PRESENCE
mandatory }
}

DL-CCTrCHInformationListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationItem-RL-ReconfReadyTDD

DL-CCTrCH-InformationItem-RL-ReconfReadyTDD ::= SEQUENCE {
    cCTrCH-ID                    CCTrCH-ID,
    dl-DPCH-AddInformation        DL-DPCH-InformationAddList-RL-ReconfReadyTDD          OPTIONAL,
    --For 3.84Mcps TDD only
    dl-DPCH-ModifyInformation     DL-DPCH-InformationModifyList-RL-ReconfReadyTDD       OPTIONAL,
    dl-DPCH-DeleteInformation     DL-DPCH-InformationDeleteList-RL-ReconfReadyTDD       OPTIONAL,
    iE-Extensions                 ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD   CRITICALITY ignore       EXTENSION   DL-DPCH-LCR-InformationAddList-RL-
ReconfReadyTDD       PRESENCE  optional}|
    --For 1.28Mcps TDD only
    { ID id-CCTrCH-Maximum-DL-Power-RL-ReconfReadyTDD                CRITICALITY ignore      EXTENSION DL-Power
                    PRESENCE optional      }|
    -- Applicable to 3.84Mcps TDD and 7.68Mcps TDD only, this is a DCH type CCTrCH power
    { ID id-CCTrCH-Minimum-DL-Power-RL-ReconfReadyTDD                CRITICALITY ignore      EXTENSION DL-Power
                    PRESENCE optional      }|
    -- Applicable to 3.84Mcps TDD and 7.68Mcps TDD only, this is a DCH type CCTrCH power
    { ID id-DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD768        CRITICALITY ignore      EXTENSION DL-DPCH-InformationAddList-RL-
ReconfReadyTDD768                       PRESENCE  optional}|
    --For 7.68Mcps TDD only
    { ID id-DL-DPCH-InformationDeleteList768-RL-ReconfReadyTDD       CRITICALITY ignore      EXTENSION DL-DPCH-InformationDeleteList768-RL-
ReconfReadyTDD       PRESENCE optional},
    ...
}

DL-DPCH-LCR-InformationAddList-RL-ReconfReadyTDD ::= SEQUENCE {
    repetitionPeriod              RepetitionPeriod,
    repetitionLength              RepetitionLength,
    tDD-DPCHOffset                TDD-DPCHOffset,
    dL-TimeslotLCR-Info           DL-TimeslotLCR-Information,
    iE-Extensions                 ProtocolExtensionContainer { {DL-DPCH-LCR-InformationAddItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-LCR-InformationAddItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

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DL-DPCH-InformationAddList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{DL-DPCH-InformationAddListIEs-RL-ReconfReadyTDD}}

DL-DPCH-InformationAddListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD   CRITICALITY ignore TYPE DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD     PRESENCE
mandatory }
}

DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD ::= SEQUENCE {
    repetitionPeriod               RepetitionPeriod,
    repetitionLength               RepetitionLength,
    tDD-DPCHOffset                 TDD-DPCHOffset,
    dL-Timeslot-Information        DL-Timeslot-Information,
    iE-Extensions                  ProtocolExtensionContainer { {DL-DPCH-InformationAddItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-InformationAddItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationAddList-RL-ReconfReadyTDD768 ::= SEQUENCE {
    repetitionPeriod               RepetitionPeriod,
    repetitionLength               RepetitionLength,
    tDD-DPCHOffset                 TDD-DPCHOffset,
    dL-Timeslot-Information768     DL-Timeslot-Information768,
    iE-Extensions                  ProtocolExtensionContainer { {DL-DPCH-InformationAddItem-RL-ReconfReadyTDD768-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-InformationAddItem-RL-ReconfReadyTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationModifyList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{DL-DPCH-InformationModifyListIEs-RL-ReconfReadyTDD}}

DL-DPCH-InformationModifyListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD   CRITICALITY ignore  TYPE DL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD
    PRESENCE mandatory }
}

DL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD ::= SEQUENCE {
    repetitionPeriod               RepetitionPeriod           OPTIONAL,
    repetitionLength               RepetitionLength           OPTIONAL,
    tDD-DPCHOffset                 TDD-DPCHOffset             OPTIONAL,
    dL-Timeslot-InformationModifyList-RL-ReconfReadyTDD       DL-Timeslot-InformationModifyList-RL-ReconfReadyTDD     OPTIONAL,
    --For 3.84Mcps TDD only
    iE-Extensions                  ProtocolExtensionContainer { {DL-DPCH-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD   CRITICALITY ignore    EXTENSION  DL-TimeslotLCR-InformationModifyList-RL-
ReconfReadyTDD       PRESENCE optional }|
```

```
    --For 1.28Mcps TDD only
    { ID id-DL-Timeslot-InformationModifyList-RL-ReconfReadyTDD768   CRITICALITY ignore EXTENSION  DL-Timeslot-InformationModifyList-RL-
ReconfReadyTDD768       PRESENCE optional },
    --For 7.68Mcps TDD only
    ...
}

DL-TimeslotLCR-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfTsLCR)) OF DL-TimeslotLCR-InformationModifyItem-RL-
ReconfReadyTDD

DL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    timeSlotLCR                     TimeSlotLCR,
    midambleShiftLCR                MidambleShiftLCR          OPTIONAL,
    tFCI-Presence                   TFCI-Presence             OPTIONAL,
    tDD-dL-Code-LCR-Information      TDD-DL-Code-LCR-InformationModifyList-RL-ReconfReadyTDD       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

TDD-DL-Code-LCR-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfDPCHsLCR)) OF TDD-DL-Code-LCR-InformationModifyItem-RL-
ReconfReadyTDD

TDD-DL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    dPCH-ID                         DPCH-ID,
    tDD-ChannelisationCodeLCR       TDD-ChannelisationCodeLCR     OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {TDD-DL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

TDD-DL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TDD-DL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD     CRITICALITY reject     EXTENSION TDD-DL-DPCH-TimeSlotFormat-LCR
    PRESENCE optional},
    ...
}

DL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Maximum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD   CRITICALITY ignore   EXTENSION   DL-Power   PRESENCE optional }|
    { ID id-Minimum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD   CRITICALITY ignore   EXTENSION   DL-Power   PRESENCE optional },
    ...
}

DL-Timeslot-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD

DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    timeSlot                        TimeSlot,
    midambleShiftAndBurstType       MidambleShiftAndBurstType         OPTIONAL,
    tFCI-Presence                   TFCI-Presence          OPTIONAL,
    dL-Code-Information             TDD-DL-Code-InformationModifyList-RL-ReconfReadyTDD         OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

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}

TDD-DL-Code-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfDPCHs)) OF TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD

TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    dPCH-ID                         DPCH-ID,
    tDD-ChannelisationCode          TDD-ChannelisationCode      OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TDD-DL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD   CRITICALITY   reject   EXTENSION TDD-DL-DPCH-TimeSlotFormat-LCR
PRESENCE  optional},
    -- This IE shall not be used
    ...
}

DL-Timeslot-InformationModifyList-RL-ReconfReadyTDD768::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD768

DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD768 ::= SEQUENCE {
    timeSlot                        TimeSlot,
    midambleShiftAndBurstType768    MidambleShiftAndBurstType768            OPTIONAL,
    tFCI-Presence                   TFCI-Presence           OPTIONAL,
    dL-Code-Information768          TDD-DL-Code-InformationModifyList-RL-ReconfReadyTDD768       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD768-ExtIEs} } OPTIONAL,
    ...
}

DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-DL-Code-InformationModifyList-RL-ReconfReadyTDD768::= SEQUENCE ( SIZE (1..maxNrOfDPCHs768)) OF TDD-DL-Code-InformationModifyItem-RL-
ReconfReadyTDD768

TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD768 ::= SEQUENCE {
    dPCH-ID768                      DPCH-ID768,
    tDD-ChannelisationCode768       TDD-ChannelisationCode768       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD768-ExtIEs} } OPTIONAL,
    ...
}

TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationDeleteList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{DL-DPCH-InformationDeleteListIEs-RL-ReconfReadyTDD}}

DL-DPCH-InformationDeleteListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD   CRITICALITY ignore  TYPE DL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD
    PRESENCE mandatory }
}
```

```
DL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfDPCHs)) OF DL-DPCH-InformationDeleteItem-RL-ReconfReadyTDD

DL-DPCH-InformationDeleteItem-RL-ReconfReadyTDD ::= SEQUENCE {
    dPCH-ID                     DPCH-ID,
    iE-Extensions               ProtocolExtensionContainer { {DL-DPCH-InformationDeleteList-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-InformationDeleteList-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationDeleteList768-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfDPCHs768)) OF DL-DPCH-InformationDeleteItem768-RL-ReconfReadyTDD

DL-DPCH-InformationDeleteItem768-RL-ReconfReadyTDD ::= SEQUENCE {
    dPCH-ID768                  DPCH-ID768,
    iE-Extensions               ProtocolExtensionContainer { {DL-DPCH-InformationDeleteList768-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-InformationDeleteList768-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationResponseList-RL-ReconfReadyTDD               ::= ProtocolIE-Single-Container { {DCH-InformationResponseListIEs-RL-ReconfReadyTDD} }

DCH-InformationResponseListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponse    CRITICALITY ignore  TYPE DCH-InformationResponse        PRESENCE mandatory }
}

DSCHToBeAddedOrModified-RL-ReconfReadyTDD          ::= ProtocolIE-Single-Container { {DSCHToBeAddedOrModifiedIEs-RL-ReconfReadyTDD} }

DSCHToBeAddedOrModifiedIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCHToBeAddedOrModifiedList-RL-ReconfReadyTDD   CRITICALITY ignore  TYPE DSCHToBeAddedOrModifiedList-RL-ReconfReadyTDD    PRESENCE
mandatory   }
}

DSCHToBeAddedOrModifiedList-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNoOfDSCHs)) OF DSCHToBeAddedOrModifiedItem-RL-ReconfReadyTDD

DSCHToBeAddedOrModifiedItem-RL-ReconfReadyTDD ::= SEQUENCE {
    dsch-ID                DSCH-ID,
    transportFormatManagement   TransportFormatManagement,
    dSCH-FlowControlInformation DSCH-FlowControlInformation,
    bindingID              BindingID   OPTIONAL,
    transportLayerAddress   TransportLayerAddress   OPTIONAL,
    iE-Extensions          ProtocolExtensionContainer { {DSCHToBeAddedOrModifiedItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

DSCHToBeAddedOrModifiedItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

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USCHToBeAddedOrModified-RL-ReconfReadyTDD          ::= ProtocolIE-Single-Container { {USCHToBeAddedOrModifiedIEs-RL-ReconfReadyTDD}
}USCHToBeAddedOrModifiedIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCHToBeAddedOrModifiedList-RL-ReconfReadyTDD   CRITICALITY ignore  TYPE USCHToBeAddedOrModifiedList-RL-ReconfReadyTDD    PRESENCE
mandatory   }
}

USCHToBeAddedOrModifiedList-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNoOfUSCHs)) OF USCHToBeAddedOrModifiedItem-RL-ReconfReadyTDD

USCHToBeAddedOrModifiedItem-RL-ReconfReadyTDD ::= SEQUENCE {
    uSCH-ID               USCH-ID,
    transportFormatManagement   TransportFormatManagement,
    bindingID             BindingID  OPTIONAL,
    transportLayerAddress   TransportLayerAddress   OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { {USCHToBeAddedOrModifiedItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

USCHToBeAddedOrModifiedItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkReconfigurationReadyTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCH-RNTI                         CRITICALITY ignore    EXTENSION HSDSCH-RNTI                         PRESENCE optional }|
    { ID id-DSCH-RNTI                           CRITICALITY ignore    EXTENSION DSCH-RNTI                           PRESENCE optional }|
    { ID id-HSDSCH-TDD-Information-Response    CRITICALITY ignore    EXTENSION HSDSCH-TDD-Information-Response    PRESENCE optional }|
    { ID id-MAChs-ResetIndicator                CRITICALITY ignore    EXTENSION MAChs-ResetIndicator                PRESENCE optional }|
    { ID id-Multiple-RL-InformationResponse-RL-ReconfReadyTDD CRITICALITY ignore    EXTENSION  Multiple-RL-InformationResponse-RL-
ReconfReadyTDD      PRESENCE     optional}|
-- This is for RL repetitions 2 and on in RL list.
    { ID id-E-DCH-Information-Response          CRITICALITY ignore    EXTENSION E-DCH-Information-Response          PRESENCE optional }|
    { ID id-E-DCH-768-Information-Response     CRITICALITY ignore    EXTENSION E-DCH-768-Information-Response     PRESENCE optional }|
    { ID id-E-DCH-LCR-Information-Response     CRITICALITY ignore    EXTENSION E-DCH-LCR-Information-Response     PRESENCE optional }|
    { ID id-PowerControlGAP                     CRITICALITY ignore    EXTENSION ControlGAP                          PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only
    ...
}

Multiple-RL-InformationResponse-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF RL-InformationResponse-RL-ReconfReadyTDD


-- *************************************************************
--
-- RADIO LINK RECONFIGURATION COMMIT
--
-- *************************************************************

RadioLinkReconfigurationCommit ::= SEQUENCE {
    protocolIEs               ProtocolIE-Container     {{RadioLinkReconfigurationCommit-IEs}},
    protocolExtensions        ProtocolExtensionContainer {{RadioLinkReconfigurationCommit-Extensions}}               OPTIONAL,
    ...
}

RadioLinkReconfigurationCommit-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-CFN              CRITICALITY ignore  TYPE CFN                        PRESENCE mandatory  }|
```

```
    { ID id-Active-Pattern-Sequence-Information    CRITICALITY ignore  TYPE Active-Pattern-Sequence-Information    PRESENCE optional  },--FDD only
    ...
}

RadioLinkReconfigurationCommit-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Fast-Reconfiguration-Mode   CRITICALITY reject  EXTENSION Fast-Reconfiguration-Mode   PRESENCE optional },--FDD only
    ...
}

-- ***************************************************************
--
-- RADIO LINK RECONFIGURATION FAILURE
--
-- ***************************************************************

RadioLinkReconfigurationFailure ::= SEQUENCE {
    protocolIEs                      ProtocolIE-Container       {{RadioLinkReconfigurationFailure-IEs}},
    protocolExtensions               ProtocolExtensionContainer {{RadioLinkReconfigurationFailure-Extensions}}                OPTIONAL,
    ...
}

RadioLinkReconfigurationFailure-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-CauseLevel-RL-ReconfFailure    CRITICALITY ignore  TYPE CauseLevel-RL-ReconfFailure  PRESENCE mandatory   } |
    { ID id-CriticalityDiagnostics         CRITICALITY ignore  TYPE CriticalityDiagnostics       PRESENCE optional },
    ...
}

CauseLevel-RL-ReconfFailure ::= CHOICE {
    generalCause       GeneralCauseList-RL-ReconfFailure,
    rLSpecificCause    RLSpecificCauseList-RL-ReconfFailure,
    ...
}

GeneralCauseList-RL-ReconfFailure ::= SEQUENCE {
    cause                                 Cause,
    iE-Extensions                         ProtocolExtensionContainer { { GeneralCauseItem-RL-ReconfFailure-ExtIEs} }       OPTIONAL,
    ...
 }

GeneralCauseItem-RL-ReconfFailure-ExtIEs  RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RLSpecificCauseList-RL-ReconfFailure ::= SEQUENCE {
    rL-ReconfigurationFailureList-RL-ReconfFailure       RL-ReconfigurationFailureList-RL-ReconfFailure    OPTIONAL,
    iE-Extensions                                        ProtocolExtensionContainer { { RLSpecificCauseItem-RL-ReconfFailure-ExtIEs} }
    OPTIONAL,
    ...
 }

RLSpecificCauseItem-RL-ReconfFailure-ExtIEs  RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

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```
RL-ReconfigurationFailureList-RL-ReconfFailure ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-ReconfigurationFailure-RL-
ReconfFailure-IEs} }

RL-ReconfigurationFailure-RL-ReconfFailure-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-ReconfigurationFailure-RL-ReconfFail CRITICALITY ignore  TYPE RL-ReconfigurationFailure-RL-ReconfFail  PRESENCE mandatory  }
}

RL-ReconfigurationFailure-RL-ReconfFail ::= SEQUENCE {
    rL-ID                       RL-ID,
    cause                       Cause,
    iE-Extensions               ProtocolExtensionContainer { {RL-ReconfigurationFailure-RL-ReconfFailure-ExtIEs} } OPTIONAL,
    ...
}

RL-ReconfigurationFailure-RL-ReconfFailure-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Max-UE-DTX-Cycle         CRITICALITY ignore     EXTENSION Max-UE-DTX-Cycle          PRESENCE conditional },
    -- This IE shall be present if the Cause IE is set to "Continuous Packet Connectivity UE DTX Cycle not Available".
    ...
}

RadioLinkReconfigurationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION CANCEL
--
-- **************************************************************

RadioLinkReconfigurationCancel ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container      {{RadioLinkReconfigurationCancel-IEs}},
    protocolExtensions          ProtocolExtensionContainer {{RadioLinkReconfigurationCancel-Extensions}}                OPTIONAL,
    ...
}

RadioLinkReconfigurationCancel-IEs RNSAP-PROTOCOL-IES ::= {
    ...
}

RadioLinkReconfigurationCancel-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION REQUEST FDD
--
-- **************************************************************

RadioLinkReconfigurationRequestFDD ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container      {{RadioLinkReconfigurationRequestFDD-IEs}},
    protocolExtensions          ProtocolExtensionContainer {{RadioLinkReconfigurationRequestFDD-Extensions}}                OPTIONAL,
    ...
```

```
}

RadioLinkReconfigurationRequestFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-AllowedQueuingTime          CRITICALITY reject  TYPE AllowedQueuingTime            PRESENCE optional   } |
    { ID id-UL-DPCH-Information-RL-ReconfRqstFDD          CRITICALITY reject  TYPE UL-DPCH-Information-RL-ReconfRqstFDD PRESENCE optional } |
    { ID id-DL-DPCH-Information-RL-ReconfRqstFDD          CRITICALITY reject  TYPE DL-DPCH-Information-RL-ReconfRqstFDD PRESENCE optional } |
    { ID id-FDD-DCHs-to-Modify     CRITICALITY reject  TYPE FDD-DCHs-to-Modify     PRESENCE optional    } |
    { ID id-DCHs-to-Add-FDD     CRITICALITY reject  TYPE DCH-FDD-Information            PRESENCE optional    } |
    { ID id-DCH-DeleteList-RL-ReconfRqstFDD     CRITICALITY reject  TYPE DCH-DeleteList-RL-ReconfRqstFDD     PRESENCE optional }|
    { ID id-Transmission-Gap-Pattern-Sequence-Information   CRITICALITY reject  TYPE Transmission-Gap-Pattern-Sequence-Information PRESENCE
optional },
    ...
}

UL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
    tFCS                            TFCS    OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-DPDCHIndicatorEDCH   CRITICALITY reject       EXTENSION UL-DPDCHIndicatorEDCH    PRESENCE optional },
    ...
}

DL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
    tFCS                     TFCS    OPTIONAL,
    tFCI-SignallingMode      TFCI-SignallingMode OPTIONAL,
    limitedPowerIncrease     LimitedPowerIncrease    OPTIONAL,
    iE-Extensions            ProtocolExtensionContainer { {DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-DeleteList-RL-ReconfRqstFDD                ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfRqstFDD

DCH-DeleteItem-RL-ReconfRqstFDD ::= SEQUENCE {
    dCH-ID                   DCH-ID,
    iE-Extensions            ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-DeleteItem-RL-ReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkReconfigurationRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-ReconfigurationRequestFDD-RL-InformationList CRITICALITY ignore  EXTENSION RL-ReconfigurationRequestFDD-RL-InformationList
    PRESENCE    optional}|
    { ID id-DL-ReferencePowerInformation                    CRITICALITY ignore  EXTENSION DL-ReferencePowerInformation        PRESENCE optional }|
    { ID id-HSDSCH-FDD-Information                           CRITICALITY reject  EXTENSION HSDSCH-FDD-Information               PRESENCE optional}|
```

```
    { ID id-HSDSCH-Information-to-Modify-Unsynchronised CRITICALITY reject      EXTENSION HSDSCH-Information-to-Modify-UnsynchronisedPRESENCE
optional}|
    { ID id-HSDSCH-MACdFlows-to-Add                   CRITICALITY reject      EXTENSION HSDSCH-MACdFlows-Information        PRESENCE optional}|
    { ID id-HSDSCH-MACdFlows-to-Delete                CRITICALITY reject      EXTENSION HSDSCH-MACdFlows-to-Delete         PRESENCE optional}|
    { ID id-HSPDSCH-RL-ID                             CRITICALITY reject      EXTENSION RL-ID                              PRESENCE optional}|
    { ID id-EDPCH-Information-RLReconfRequest-FDD      CRITICALITY reject      EXTENSION EDPCH-Information-RLReconfRequest-FDD    PRESENCE optional}|
    { ID id-EDCH-FDD-Information                       CRITICALITY reject      EXTENSION EDCH-FDD-Information                PRESENCE optional}|
    { ID id-EDCH-FDD-Information-To-Modify             CRITICALITY reject      EXTENSION EDCH-FDD-Information-To-Modify      PRESENCE optional}|
    { ID id-EDCH-MACdFlows-To-Add                     CRITICALITY reject      EXTENSION EDCH-MACdFlows-Information          PRESENCE optional}|
    { ID id-EDCH-MACdFlows-To-Delete                  CRITICALITY reject      EXTENSION EDCH-MACdFlows-To-Delete           PRESENCE optional}|
    { ID id-Serving-EDCHRL-Id                         CRITICALITY reject      EXTENSION EDCH-Serving-RL                    PRESENCE optional}|
    { ID id-CPC-Information                           CRITICALITY reject      EXTENSION CPC-Information                    PRESENCE optional},
    ...
}

RL-ReconfigurationRequestFDD-RL-InformationList ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container {
    {RL-ReconfigurationRequestFDD-RL-Information-ListItem} }

RL-ReconfigurationRequestFDD-RL-Information-ListItem RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-ReconfigurationRequestFDD-RL-Information-IEs CRITICALITY ignore  TYPE RL-ReconfigurationRequestFDD-RL-Information-IEs PRESENCE
optional    }
}

RL-ReconfigurationRequestFDD-RL-Information-IEs ::= SEQUENCE {
    rL-ID                 RL-ID,
    rL-Specific-DCH-Info    RL-Specific-DCH-Info OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { { RL-ReconfigurationRequestFDD-RL-Information-ExtIEs} } OPTIONAL,
    ...
}

RL-ReconfigurationRequestFDD-RL-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-Specific-EDCH-Information          CRITICALITY reject      EXTENSION RL-Specific-EDCH-Information     PRESENCE optional }|
    { ID id-EDCH-RL-Indication                    CRITICALITY reject      EXTENSION EDCH-RL-Indication              PRESENCE optional },
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION REQUEST TDD
--
-- **************************************************************

RadioLinkReconfigurationRequestTDD ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container       {{RadioLinkReconfigurationRequestTDD-IEs}},
    protocolExtensions          ProtocolExtensionContainer {{RadioLinkReconfigurationRequestTDD-Extensions}}                OPTIONAL,
    ...
}

RadioLinkReconfigurationRequestTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-AllowedQueuingTime          CRITICALITY reject  TYPE AllowedQueuingTime              PRESENCE optional  } |
    { ID id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD    CRITICALITY notify  TYPE UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD PRESENCE
optional    } |
    { ID id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD    CRITICALITY notify  TYPE UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD PRESENCE
optional    } |
```

```
    { ID id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD    CRITICALITY notify  TYPE DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD  PRESENCE
optional    } |
    { ID id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD    CRITICALITY notify  TYPE DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD  PRESENCE
optional    } |
    { ID id-TDD-DCHs-to-Modify      CRITICALITY reject  TYPE TDD-DCHs-to-Modify      PRESENCE optional    } |
    { ID id-DCHs-to-Add-TDD    CRITICALITY reject  TYPE DCH-TDD-Information      PRESENCE optional    } |
    { ID id-DCH-DeleteList-RL-ReconfRqstTDD    CRITICALITY reject  TYPE DCH-DeleteList-RL-ReconfRqstTDD      PRESENCE optional },
    ...
}

UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD        ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
InformationModifyList-RL-ReconfRqstTDD-IEs} }

UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD    CRITICALITY notify  TYPE UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD  PRESENCE
mandatory    }
}

UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID                CCTrCH-ID,
    tFCS                     TFCS        OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-SIRTarget    CRITICALITY reject    EXTENSION    UL-SIR    PRESENCE  optional   },
    -- Applicable to 1.28Mcps TDD only
    ...
}

UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD        ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
InformationDeleteList-RL-ReconfRqstTDD-IEs} }

UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD    CRITICALITY notify  TYPE UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD  PRESENCE
mandatory    }
}

UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID                CCTrCH-ID,
    iE-Extensions               ProtocolExtensionContainer { {UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD        ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
InformationModifyList-RL-ReconfRqstTDD-IEs} }

DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD-IEs RNSAP-PROTOCOL-IES ::= {
```

```
    { ID id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD    CRITICALITY notify  TYPE DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD  PRESENCE
mandatory   }
}

DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    tFCS                        TFCS        OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD        ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
InformationDeleteList-RL-ReconfRqstTDD-IEs} }

DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD    CRITICALITY notify  TYPE DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD  PRESENCE
mandatory   }
}

DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    iE-Extensions               ProtocolExtensionContainer { {DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-DeleteList-RL-ReconfRqstTDD                ::= SEQUENCE (SIZE(0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfRqstTDD

DCH-DeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
    dCH-ID                      DCH-ID,
    iE-Extensions               ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-DeleteItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkReconfigurationRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  { ID id-RL-ReconfigurationRequestTDD-RL-Information   CRITICALITY ignore     EXTENSION   Multiple-RL-ReconfigurationRequestTDD-RL-Information
    PRESENCE    optional}|
    { ID id-HSDSCH-TDD-Information               CRITICALITY reject     EXTENSION HSDSCH-TDD-Information           PRESENCE optional}|
    { ID id-HSDSCH-Information-to-Modify-Unsynchronised CRITICALITY reject     EXTENSION HSDSCH-Information-to-Modify-UnsynchronisedPRESENCE
optional}|
    { ID id-HSDSCH-MACdFlows-to-Add             CRITICALITY reject     EXTENSION HSDSCH-MACdFlows-Information       PRESENCE optional}|
    { ID id-HSDSCH-MACdFlows-to-Delete          CRITICALITY reject     EXTENSION HSDSCH-MACdFlows-to-Delete        PRESENCE optional}|
    { ID id-HSPDSCH-RL-ID                       CRITICALITY reject     EXTENSION RL-ID                             PRESENCE optional}|
```

```
    { ID id-E-DCH-Information-Reconfig          CRITICALITY reject      EXTENSION E-DCH-Information-Reconfig          PRESENCE optional }|
    { ID id-E-DCH-Serving-RL-ID                 CRITICALITY reject      EXTENSION RL-ID                               PRESENCE optional }|
    { ID id-E-DCH-768-Information-Reconfig       CRITICALITY reject      EXTENSION E-DCH-768-Information-Reconfig      PRESENCE optional }|
    { ID id-E-DCH-LCR-Information-Reconfig       CRITICALITY reject      EXTENSION E-DCH-LCR-Information-Reconfig      PRESENCE optional },
    ...
}

Multiple-RL-ReconfigurationRequestTDD-RL-Information ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF RL-ReconfigurationRequestTDD-RL-Information

RL-ReconfigurationRequestTDD-RL-Information ::= SEQUENCE {
    rL-ID                 RL-ID,
    rL-Specific-DCH-Info  RL-Specific-DCH-Info OPTIONAL,
    iE-Extensions         ProtocolExtensionContainer { { RL-ReconfigurationRequestTDD-RL-Information-ExtIEs} } OPTIONAL,
    ...
}

RL-ReconfigurationRequestTDD-RL-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID   id-UL-Synchronisation-Parameters-LCR           CRITICALITY ignore      EXTENSION   UL-Synchronisation-Parameters-LCR    PRESENCE
    optional   },  -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
    ...
}

-- ****************************************************************
--
-- RADIO LINK RECONFIGURATION RESPONSE FDD
--
-- ****************************************************************

RadioLinkReconfigurationResponseFDD ::= SEQUENCE {
    protocolIEs                   ProtocolIE-Container       {{RadioLinkReconfigurationResponseFDD-IEs}},
    protocolExtensions            ProtocolExtensionContainer {{RadioLinkReconfigurationResponseFDD-Extensions}}          OPTIONAL,
    ...
}

RadioLinkReconfigurationResponseFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseList-RL-ReconfRspFDD     CRITICALITY ignore  TYPE RL-InformationResponseList-RL-ReconfRspFDD       PRESENCE
optional   } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics        PRESENCE optional },
    ...
}

RL-InformationResponseList-RL-ReconfRspFDD     ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationResponse-RL-
ReconfRspFDD-IEs} }

RL-InformationResponse-RL-ReconfRspFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseItem-RL-ReconfRspFDD     CRITICALITY ignore  TYPE RL-InformationResponseItem-RL-ReconfRspFDD     PRESENCE
mandatory   }
}

RL-InformationResponseItem-RL-ReconfRspFDD ::= SEQUENCE {
    rL-ID                        RL-ID,
    max-UL-SIR                   UL-SIR          OPTIONAL,
    min-UL-SIR                   UL-SIR          OPTIONAL,
    maximumDLTxPower             DL-Power        OPTIONAL,
```

```
    minimumDLTxPower                  DL-Power        OPTIONAL,
    not-Used-secondary-CCPCH-Info              NULL         OPTIONAL,
    dCHsInformationResponseList    DCH-InformationResponseList-RL-ReconfRspFDD OPTIONAL,
    dL-CodeInformationList-RL-ReconfResp    DL-CodeInformationList-RL-ReconfRspFDD  OPTIONAL,
    iE-Extensions                  ProtocolExtensionContainer { {RL-InformationResponseItem-RL-ReconfRspFDD-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationResponseItem-RL-ReconfRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-PowerBalancing-UpdatedIndicator  CRITICALITY ignore     EXTENSION     DL-PowerBalancing-UpdatedIndicator    PRESENCE optional}|
    { ID id-EDCH-FDD-InformationResponse        CRITICALITY ignore  EXTENSION EDCH-FDD-InformationResponse                PRESENCE optional }|
    { ID id-EDCH-RLSet-Id                       CRITICALITY ignore  EXTENSION RL-Set-ID                                   PRESENCE optional }|
    { ID id-EDCH-FDD-DL-ControlChannelInformation   CRITICALITY ignore  EXTENSION EDCH-FDD-DL-ControlChannelInformation  PRESENCE optional }|
    { ID id-F-DPCH-SlotFormat                   CRITICALITY ignore  EXTENSION F-DPCH-SlotFormat                           PRESENCE optional },
    ...
}

DCH-InformationResponseList-RL-ReconfRspFDD               ::= ProtocolIE-Single-Container { {DCH-InformationResponseListIEs-RL-ReconfRspFDD} }

DCH-InformationResponseListIEs-RL-ReconfRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponse     CRITICALITY ignore  TYPE DCH-InformationResponse      PRESENCE mandatory }
}

DL-CodeInformationList-RL-ReconfRspFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-ReconfRspFDD }}

DL-CodeInformationListIEs-RL-ReconfRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FDD-DL-CodeInformation   CRITICALITY ignore TYPE FDD-DL-CodeInformation     PRESENCE optional }
}

RadioLinkReconfigurationResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCH-RNTI                         CRITICALITY ignore     EXTENSION HSDSCH-RNTI                         PRESENCE optional }|
    { ID id-HSDSCH-FDD-Information-Response      CRITICALITY ignore     EXTENSION HSDSCH-FDD-Information-Response     PRESENCE optional }|
    { ID id-MAChs-ResetIndicator                CRITICALITY ignore     EXTENSION MAChs-ResetIndicator               PRESENCE optional }|
    { ID id-Continuous-Packet-Connectivity-HS-SCCH-Less-Information-Response           CRITICALITY ignore     EXTENSION Continuous-Packet-
Connectivity-HS-SCCH-Less-Information-Response                      PRESENCE optional },
    ...
}

-- *************************************************************
--
-- RADIO LINK RECONFIGURATION RESPONSE TDD
--
-- *************************************************************

RadioLinkReconfigurationResponseTDD ::= SEQUENCE {
    protocolIEs                  ProtocolIE-Container    {{RadioLinkReconfigurationResponseTDD-IEs}},
    protocolExtensions           ProtocolExtensionContainer {{RadioLinkReconfigurationResponseTDD-Extensions}}           OPTIONAL,
    ...
}

RadioLinkReconfigurationResponseTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponse-RL-ReconfRspTDD     CRITICALITY ignore  TYPE RL-InformationResponse-RL-ReconfRspTDD       PRESENCE optional }
|
    --This RL-InformationResponse-RL-ReconfRspTDD is for the first RL repetition in the list.
```

```
    --Repetitions 2 and on are defined in Multiple-RL-InformationResponse-RL-ReconfRspTDD.
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

RL-InformationResponse-RL-ReconfRspTDD ::= SEQUENCE {
    rL-ID                           RL-ID,
    max-UL-SIR                      UL-SIR          OPTIONAL,
    min-UL-SIR                      UL-SIR          OPTIONAL,
    maximumDLTxPower                DL-Power        OPTIONAL,
    minimumDLTxPower                DL-Power        OPTIONAL,
    dCHsInformationResponseList     DCH-InformationResponseList-RL-ReconfRspTDD OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {RL-InformationResponse-RL-ReconfRspTDD-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationResponse-RL-ReconfRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-CCTrCH-InformationList-RL-ReconfRspTDD   CRITICALITY ignore  EXTENSION DL-CCTrCH-InformationList-RL-ReconfRspTDD   PRESENCE optional
}|
    { ID id-UL-TimingAdvanceCtrl-LCR                    CRITICALITY ignore  EXTENSION UL-TimingAdvanceCtrl-LCR     PRESENCE optional },
    --For 1.28Mcps TDD only
    ...
}

DL-CCTrCH-InformationList-RL-ReconfRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationItem-RL-ReconfRspTDD

DL-CCTrCH-InformationItem-RL-ReconfRspTDD ::= SEQUENCE {
    cCTrCH-ID                               CCTrCH-ID,
    dl-DPCH-ModifyInformation-LCR           DL-DPCH-InformationModifyList-LCR-RL-ReconfRspTDD     OPTIONAL,
    --For 1.28Mcps TDD only
    cCTrCH-Maximum-DL-Power                         DL-Power                OPTIONAL,
    --For 3.84Mcps TDD and 7.68Mcps TDD only, this is a DCH type CCTrCH power
    cCTrCH-Minimum-DL-Power                         DL-Power                OPTIONAL,
    --For 3.84Mcps TDD and 7.68Mcps TDD only, this is a DCH type CCTrCH power
    iE-Extensions                           ProtocolExtensionContainer { { DL-CCTrCH-InformationItem-RL-ReconfRspTDD-ExtIEs} }   OPTIONAL,
    ...
}

DL-CCTrCH-InformationItem-RL-ReconfRspTDD-ExtIEs   RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationModifyList-LCR-RL-ReconfRspTDD  ::= ProtocolIE-Single-Container {{ DL-DPCH-InformationModifyListIEs-LCR-RL-ReconfRspTDD }}

DL-DPCH-InformationModifyListIEs-LCR-RL-ReconfRspTDD RNSAP-PROTOCOL-IES ::= {
    {ID id-DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD   CRITICALITY ignore   TYPE  DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD
    PRESENCE optional },
    ...
}

DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD  ::= SEQUENCE {
    dL-Timeslot-LCR-InformationModifyList-RL-ReconfRqstTDD      DL-Timeslot-LCR-InformationModifyList-RL-ReconfRspTDD     OPTIONAL,
    iE-ExtensionsProtocolExtensionContainer { { DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD-ExtIEs} }               OPTIONAL,
    ...
```

```
}

DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD-ExtIEs  RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Timeslot-LCR-InformationModifyList-RL-ReconfRspTDD ::= SEQUENCE (SIZE (1..maxNrOfDLTsLCR)) OF DL-Timeslot-LCR-InformationModifyItem-RL-
ReconfRspTDD

DL-Timeslot-LCR-InformationModifyItem-RL-ReconfRspTDD    ::= SEQUENCE {
    timeSlotLCR                              TimeSlotLCR,
    maxPowerLCR                              DL-Power   OPTIONAL,
    minPowerLCR                              DL-Power   OPTIONAL,
    iE-Extensions                            ProtocolExtensionContainer { { DL-Timeslot-LCR-InformationModifyItem-RL-ReconfRspTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-Timeslot-LCR-InformationModifyItem-RL-ReconfRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationResponseList-RL-ReconfRspTDD                 ::= ProtocolIE-Single-Container { {DCH-InformationResponseListIEs-RL-ReconfRspTDD} }

DCH-InformationResponseListIEs-RL-ReconfRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponse CRITICALITY ignore  TYPE DCH-InformationResponse    PRESENCE optional }
}

RadioLinkReconfigurationResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCH-RNTI                         CRITICALITY ignore      EXTENSION HSDSCH-RNTI                          PRESENCE optional }|
    { ID id-HSDSCH-TDD-Information-Response      CRITICALITY ignore      EXTENSION HSDSCH-TDD-Information-Response       PRESENCE optional }|
    { ID id-MAChs-ResetIndicator                CRITICALITY ignore      EXTENSION MAChs-ResetIndicator                 PRESENCE optional }|
    { ID id-RL-ReconfigurationResponseTDD-RL-Information   CRITICALITY ignore      EXTENSION  Multiple-RL-InformationResponse-RL-ReconfRspTDD
    PRESENCE     optional}|
    { ID id-E-DCH-Information-Response           CRITICALITY ignore      EXTENSION E-DCH-Information-Response           PRESENCE optional }|
    { ID id-E-DCH-768-Information-Response       CRITICALITY ignore      EXTENSION E-DCH-768-Information-Response       PRESENCE optional }|
    { ID id-E-DCH-LCR-Information-Response       CRITICALITY ignore      EXTENSION E-DCH-LCR-Information-Response       PRESENCE optional }|
    { ID id-PowerControlGAP                      CRITICALITY ignore      EXTENSION ControlGAP                           PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only
    ...
}

Multiple-RL-InformationResponse-RL-ReconfRspTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF RL-InformationResponse-RL-ReconfRspTDD
--Includes the 2^nd through the max number of radio link information repetitions.

-- **************************************************************
--
-- RADIO LINK FAILURE INDICATION
--
-- **************************************************************

RadioLinkFailureIndication ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container      {{RadioLinkFailureIndication-IEs}},
    protocolExtensions          ProtocolExtensionContainer {{RadioLinkFailureIndication-Extensions}}                 OPTIONAL,
```

```
    ...
}

RadioLinkFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-Reporting-Object-RL-FailureInd  CRITICALITY ignore  TYPE Reporting-Object-RL-FailureInd    PRESENCE mandatory  },
    ...
}

Reporting-Object-RL-FailureInd ::= CHOICE {
    rL                      RL-RL-FailureInd,
    rL-Set                  RL-Set-RL-FailureInd, --FDD only
    ...,
    cCTrCH                  CCTrCH-RL-FailureInd  --TDD only
}

RL-RL-FailureInd            ::= SEQUENCE {
    rL-InformationList-RL-FailureInd       RL-InformationList-RL-FailureInd,
    iE-Extensions                          ProtocolExtensionContainer { { RLItem-RL-FailureInd-ExtIEs} } OPTIONAL,
    ...
}

RLItem-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-FailureInd            ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-RL-FailureInd-IEs}
}

RL-Information-RL-FailureInd-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-FailureInd       CRITICALITY ignore  TYPE RL-Information-RL-FailureInd     PRESENCE mandatory   }
}

RL-Information-RL-FailureInd ::= SEQUENCE {
    rL-ID                   RL-ID,
    cause                   Cause,
    iE-Extensions           ProtocolExtensionContainer { {RL-Information-RL-FailureInd-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-RL-FailureInd            ::= SEQUENCE {
    rL-Set-InformationList-RL-FailureInd    RL-Set-InformationList-RL-FailureInd,
    iE-Extensions                           ProtocolExtensionContainer { { RL-SetItem-RL-FailureInd-ExtIEs} } OPTIONAL,
    ...
}

RL-SetItem-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
RL-Set-InformationList-RL-FailureInd                    ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-RL-
FailureInd-IEs} }

RL-Set-Information-RL-FailureInd-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-Information-RL-FailureInd       CRITICALITY ignore  TYPE RL-Set-Information-RL-FailureInd    PRESENCE mandatory   }
}

RL-Set-Information-RL-FailureInd ::= SEQUENCE {
    rL-Set-ID                       RL-Set-ID,
    cause                           Cause,
    iE-Extensions                   ProtocolExtensionContainer { {RL-Set-Information-RL-FailureInd-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-Information-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CCTrCH-RL-FailureInd ::= SEQUENCE {
    rL-ID                                   RL-ID,
    cCTrCH-InformationList-RL-FailureInd        CCTrCH-InformationList-RL-FailureInd,
    iE-Extensions                           ProtocolExtensionContainer { { CCTrCHItem-RL-FailureInd-ExtIEs } }     OPTIONAL,
    ...
 }

CCTrCHItem-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CCTrCH-InformationList-RL-FailureInd ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ CCTrCH-InformationItemIE-RL-
FailureInd}}

CCTrCH-InformationItemIE-RL-FailureInd RNSAP-PROTOCOL-IES ::= {
    { ID   id-CCTrCH-InformationItem-RL-FailureInd       CRITICALITY    ignore       TYPE CCTrCH-InformationItem-RL-FailureInd
    PRESENCE    mandatory}
 }

CCTrCH-InformationItem-RL-FailureInd ::= SEQUENCE {
    cCTrCH-ID                       CCTrCH-ID,
    cause                           Cause,
    iE-Extensions                   ProtocolExtensionContainer { { CCTrCH-InformationItem-RL-FailureInd-ExtIEs } }   OPTIONAL,
    ...
 }

CCTrCH-InformationItem-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *************************************************************
--
```

```
-- RADIO LINK PREEMPTION REQUIRED INDICATION
--
-- ****************************************************************

RadioLinkPreemptionRequiredIndication ::= SEQUENCE {
    protocolIEs                    ProtocolIE-Container       {{RadioLinkPreemptionRequiredIndication-IEs}},
    protocolExtensions             ProtocolExtensionContainer {{RadioLinkPreemptionRequiredIndication-Extensions}}              OPTIONAL,
    ...
}

RadioLinkPreemptionRequiredIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationList-RL-PreemptRequiredInd   CRITICALITY ignore  TYPE RL-InformationList-RL-PreemptRequiredInd   PRESENCE optional },
    ...
}

RL-InformationList-RL-PreemptRequiredInd               ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationItemIEs-RL-
PreemptRequiredInd} }

RL-InformationItemIEs-RL-PreemptRequiredInd RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-RL-PreemptRequiredInd       CRITICALITY ignore  TYPE RL-InformationItem-RL-PreemptRequiredInd     PRESENCE
mandatory   }
}

RL-InformationItem-RL-PreemptRequiredInd::= SEQUENCE {
    rL-ID                     RL-ID,
    iE-Extensions             ProtocolExtensionContainer { {RL-Information-RL-PreemptRequiredInd-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-RL-PreemptRequiredInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-EDCH-MacdFlowSpecificInformationList-RL-PreemptRequiredInd  CRITICALITY ignore  EXTENSION EDCH-MacdFlowSpecificInformationList-RL-
PreemptRequiredInd PRESENCE optional },
    ...
}

RadioLinkPreemptionRequiredIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCHMacdFlowSpecificInformationList-RL-PreemptRequiredInd  CRITICALITY ignore EXTENSION HSDSCHMacdFlowSpecificInformationList-RL-
PreemptRequiredInd PRESENCE optional },
    ...
}

HSDSCHMacdFlowSpecificInformationList-RL-PreemptRequiredInd ::= SEQUENCE (SIZE (1.. maxNrOfMACdFlows)) OF ProtocolIE-Single-Container {
{HSDSCHMacdFlowSpecificInformationItemIEs-RL-PreemptRequiredInd} }

HSDSCHMacdFlowSpecificInformationItemIEs-RL-PreemptRequiredInd RNSAP-PROTOCOL-IES ::= {
    { ID id-HSDSCHMacdFlowSpecificInformationItem-RL-PreemptRequiredInd     CRITICALITY ignore  TYPE HSDSCHMacdFlowSpecificInformationItem-RL-
PreemptRequiredInd   PRESENCE mandatory   }
}

HSDSCHMacdFlowSpecificInformationItem-RL-PreemptRequiredInd ::= SEQUENCE {
    hSDSCH-MACdFlow-ID                         HSDSCH-MACdFlow-ID,
    iE-Extensions                   ProtocolExtensionContainer { { HSDSCHMacdFlowSpecificInformation-RL-PreemptRequiredInd-ExtIEs} } OPTIONAL,
    ...
}
```

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```
HSDSCHMacdFlowSpecificInformation-RL-PreemptRequiredInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

EDCH-MacdFlowSpecificInformationList-RL-PreemptRequiredInd  ::= SEQUENCE (SIZE (1.. maxNrOfEDCHMACdFlows)) OF ProtocolIE-Single-Container { {EDCH-
MacdFlowSpecificInformationItemIEs-RL-PreemptRequiredInd} }

EDCH-MacdFlowSpecificInformationItemIEs-RL-PreemptRequiredInd RNSAP-PROTOCOL-IES ::= {
    { ID id-EDCH-MacdFlowSpecificInformationItem-RL-PreemptRequiredInd    CRITICALITY ignore  TYPE EDCH-MacdFlowSpecificInformationItem-RL-
PreemptRequiredInd  PRESENCE mandatory  }
}

EDCH-MacdFlowSpecificInformationItem-RL-PreemptRequiredInd ::= SEQUENCE {
    eDCH-MACdFlow-ID            EDCH-MACdFlow-ID,
    iE-Extensions              ProtocolExtensionContainer { { EDCH-MacdFlowSpecificInformation-RL-PreemptRequiredInd-ExtIEs} } OPTIONAL,
    ...
}

EDCH-MacdFlowSpecificInformation-RL-PreemptRequiredInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


-- ***************************************************************
--
-- RADIO LINK RESTORE INDICATION
--
-- ***************************************************************

RadioLinkRestoreIndication ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container       {{RadioLinkRestoreIndication-IEs}},
    protocolExtensions          ProtocolExtensionContainer {{RadioLinkRestoreIndication-Extensions}}                OPTIONAL,
    ...
}

RadioLinkRestoreIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-Reporing-Object-RL-RestoreInd   CRITICALITY ignore  TYPE Reporting-Object-RL-RestoreInd    PRESENCE mandatory  },
    ...
}

Reporting-Object-RL-RestoreInd ::= CHOICE {
    rL                RL-RL-RestoreInd, --TDD only
    rL-Set            RL-Set-RL-RestoreInd, --FDD only
    ...,
    cCTrCH            CCTrCH-RL-RestoreInd  --TDD only
}

RL-RL-RestoreInd ::= SEQUENCE {
    rL-InformationList-RL-RestoreInd        RL-InformationList-RL-RestoreInd,
    iE-Extensions                           ProtocolExtensionContainer { { RLItem-RL-RestoreInd-ExtIEs} } OPTIONAL,
    ...
}
```

```
RLItem-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-RestoreInd                ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-RL-RestoreInd-IEs}
}

RL-Information-RL-RestoreInd-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-RestoreInd      CRITICALITY ignore  TYPE RL-Information-RL-RestoreInd     PRESENCE mandatory   }
}

RL-Information-RL-RestoreInd ::= SEQUENCE {
    rL-ID                       RL-ID,
    iE-Extensions               ProtocolExtensionContainer { {RL-Information-RL-RestoreInd-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-RL-RestoreInd ::= SEQUENCE {
    rL-Set-InformationList-RL-RestoreInd    RL-Set-InformationList-RL-RestoreInd,
    iE-Extensions                           ProtocolExtensionContainer { { RL-SetItem-RL-RestoreInd-ExtIEs} } OPTIONAL,
    ...
}

RL-SetItem-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-InformationList-RL-RestoreInd            ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-RL-
RestoreInd-IEs} }

RL-Set-Information-RL-RestoreInd-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-Information-RL-RestoreInd      CRITICALITY ignore  TYPE RL-Set-Information-RL-RestoreInd    PRESENCE mandatory   }
}

RL-Set-Information-RL-RestoreInd ::= SEQUENCE {
    rL-Set-ID                   RL-Set-ID,
    iE-Extensions               ProtocolExtensionContainer { {RL-Set-Information-RL-RestoreInd-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-Information-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkRestoreIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CCTrCH-RL-RestoreInd ::= SEQUENCE {
    rL-ID                                   RL-ID,
```

```
    cCTrCH-InformationList-RL-RestoreInd        CCTrCH-InformationList-RL-RestoreInd,
    iE-Extensions                               ProtocolExtensionContainer { { CCTrCHItem-RL-RestoreInd-ExtIEs } }     OPTIONAL,
    ...
 }

CCTrCHItem-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CCTrCH-InformationList-RL-RestoreInd ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ CCTrCH-InformationItemIE-RL-
RestoreInd}}

CCTrCH-InformationItemIE-RL-RestoreInd RNSAP-PROTOCOL-IES ::= {
    { ID   id-CCTrCH-InformationItem-RL-RestoreInd       CRITICALITY   ignore       TYPE CCTrCH-InformationItem-RL-RestoreInd
    PRESENCE    mandatory}
 }

CCTrCH-InformationItem-RL-RestoreInd ::= SEQUENCE {
    cCTrCH-ID                                   CCTrCH-ID,
    iE-Extensions                               ProtocolExtensionContainer { { CCTrCH-InformationItem-RL-RestoreInd-ExtIEs } }     OPTIONAL,
    ...
 }

CCTrCH-InformationItem-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- ****************************************************************
--
-- DOWNLINK POWER CONTROL REQUEST
--
-- ****************************************************************

DL-PowerControlRequest ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container        {{DL-PowerControlRequest-IEs}},
    protocolExtensions          ProtocolExtensionContainer {{DL-PowerControlRequest-Extensions}}                        OPTIONAL,
    ...
}

DL-PowerControlRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-PowerAdjustmentType          CRITICALITY ignore  TYPE PowerAdjustmentType            PRESENCE mandatory} |
    { ID id-DLReferencePower             CRITICALITY ignore  TYPE DL-Power                       PRESENCE conditional} |
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common'
    { ID id-InnerLoopDLPCStatus          CRITICALITY ignore  TYPE InnerLoopDLPCStatus            PRESENCE optional } |
    { ID id-DLReferencePowerList-DL-PC-Rqst    CRITICALITY ignore  TYPE DL-ReferencePowerInformationList-DL-PC-Rqst  PRESENCE conditional} |
    -- This IE shall be present if Power Adjustment Type IE equals to 'Individual'
    { ID id-MaxAdjustmentStep            CRITICALITY ignore  TYPE MaxAdjustmentStep         PRESENCE conditional } |
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    { ID id-AdjustmentPeriod             CRITICALITY ignore  TYPE AdjustmentPeriod          PRESENCE conditional }|
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    { ID id-AdjustmentRatio              CRITICALITY ignore  TYPE ScaledAdjustmentRatio          PRESENCE conditional },
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    ...
}
```

```
DL-ReferencePowerInformationList-DL-PC-Rqst               ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {DL-
ReferencePowerInformation-DL-PC-Rqst-IEs} }

DL-ReferencePowerInformation-DL-PC-Rqst-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-ReferencePowerInformation-DL-PC-Rqst CRITICALITY ignore  TYPE DL-ReferencePowerInformation-DL-PC-Rqst  PRESENCE mandatory  }
}

DL-ReferencePowerInformation-DL-PC-Rqst ::= SEQUENCE {
    rL-ID                       RL-ID,
    dl-Reference-Power                      DL-Power,
    iE-Extensions                      ProtocolExtensionContainer { {DL-ReferencePowerInformation-DL-PC-Rqst-ExtIEs} } OPTIONAL,
    ...
}

DL-ReferencePowerInformation-DL-PC-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {

    ...
}

DL-PowerControlRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {

    ...
}

-- **************************************************************
--
-- DOWNLINK POWER TIMESLOT CONTROL REQUEST TDD
--
-- **************************************************************

DL-PowerTimeslotControlRequest ::= SEQUENCE {
    protocolIEs                      ProtocolIE-Container      {{DL-PowerTimeslotControlRequest-IEs}},
    protocolExtensions                      ProtocolExtensionContainer {{DL-PowerTimeslotControlRequest-Extensions}}                      OPTIONAL,
    ...
}

DL-PowerTimeslotControlRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-timeSlot-ISCP   CRITICALITY ignore  TYPE DL-TimeSlot-ISCP-Info  PRESENCE optional},
    --Mandatory for 3.84Mcps TDD and 7.68 Mcps TDD only
    ...
}

DL-PowerTimeslotControlRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-timeSlot-ISCP-LCR-List-DL-PC-Rqst-TDD   CRITICALITY     ignore EXTENSION    DL-TimeSlot-ISCP-LCR-Information    PRESENCE optional}|
    --Mandatory for 1.28Mcps TDD only
    { ID id-PrimCCPCH-RSCP-DL-PC-RqstTDD            CRITICALITY ignore     EXTENSION PrimaryCCPCH-RSCP        PRESENCE optional }|
    { ID id-PrimaryCCPCH-RSCP-Delta    CRITICALITY ignore     EXTENSION   PrimaryCCPCH-RSCP-Delta   PRESENCE   optional },
    ...
}

-- **************************************************************
--
-- PHYSICAL CHANNEL RECONFIGURATION REQUEST FDD
--
-- **************************************************************
```

```
PhysicalChannelReconfigurationRequestFDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{PhysicalChannelReconfigurationRequestFDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{PhysicalChannelReconfigurationRequestFDD-Extensions}}         OPTIONAL,
    ...
}

PhysicalChannelReconfigurationRequestFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-PhyChReconfRqstFDD   CRITICALITY reject  TYPE RL-Information-PhyChReconfRqstFDD    PRESENCE mandatory   },
    ...
}

RL-Information-PhyChReconfRqstFDD ::= SEQUENCE {
    rL-ID                      RL-ID,
    dl-CodeInformation             DL-CodeInformationList-PhyChReconfRqstFDD,
    iE-Extensions                  ProtocolExtensionContainer { {RL-Information-PhyChReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-PhyChReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-F-DPCH-SlotFormat               CRITICALITY ignore  EXTENSION F-DPCH-SlotFormat     PRESENCE optional},
    ...
}

DL-CodeInformationList-PhyChReconfRqstFDD       ::= ProtocolIE-Single-Container { {DL-CodeInformationListIEs-PhyChReconfRqstFDD} }

DL-CodeInformationListIEs-PhyChReconfRqstFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FDD-DL-CodeInformation  CRITICALITY notify  TYPE FDD-DL-CodeInformation PRESENCE mandatory  }
}

PhysicalChannelReconfigurationRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {

    ...
}

-- ****************************************************************
--
-- PHYSICAL CHANNEL RECONFIGURATION REQUEST TDD
--
-- ****************************************************************

PhysicalChannelReconfigurationRequestTDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{PhysicalChannelReconfigurationRequestTDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{PhysicalChannelReconfigurationRequestTDD-Extensions}}         OPTIONAL,
    ...
}

PhysicalChannelReconfigurationRequestTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-PhyChReconfRqstTDD   CRITICALITY reject  TYPE RL-Information-PhyChReconfRqstTDD    PRESENCE mandatory   },
    ...
}

RL-Information-PhyChReconfRqstTDD ::= SEQUENCE {
    rL-ID                      RL-ID,
    ul-CCTrCH-Information           UL-CCTrCH-InformationList-PhyChReconfRqstTDD    OPTIONAL,
```

```
    dl-CCTrCH-Information              DL-CCTrCH-InformationList-PhyChReconfRqstTDD    OPTIONAL,
    iE-Extensions                     ProtocolExtensionContainer { {RL-Information-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD       CRITICALITY reject  EXTENSION HSPDSCH-Timeslot-InformationList-
PhyChReconfRqstTDD      PRESENCE optional } |
    --For 3.84Mcps TDD only
    { ID id-HSPDSCH-Timeslot-InformationListLCR-PhyChReconfRqstTDD     CRITICALITY reject  EXTENSION HSPDSCH-Timeslot-InformationListLCR-
PhyChReconfRqstTDD  PRESENCE optional }|
    --For 1.28Mcps TDD only
    { ID id-HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD768     CRITICALITY reject  EXTENSION HSPDSCH-Timeslot-InformationList-
PhyChReconfRqstTDD768       PRESENCE optional }|
    --For 7.68Mcps TDD only
    { ID id-UARFCNforNt                                               CRITICALITY ignore  EXTENSION UARFCN          PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only
    ...
}

UL-CCTrCH-InformationList-PhyChReconfRqstTDD        ::= ProtocolIE-Single-Container { {UL-CCTrCH-InformationListIEs-PhyChReconfRqstTDD} }

UL-CCTrCH-InformationListIEs-PhyChReconfRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD     CRITICALITY reject  TYPE UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD     PRESENCE
mandatory   }
}

UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationItem-PhyChReconfRqstTDD

UL-CCTrCH-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID                    CCTrCH-ID,
    ul-DPCH-Information          UL-DPCH-InformationList-PhyChReconfRqstTDD,
    iE-Extensions               ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCH-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-InformationList-PhyChReconfRqstTDD ::= ProtocolIE-Single-Container {{UL-DPCH-InformationListIEs-PhyChReconfRqstTDD}}

UL-DPCH-InformationListIEs-PhyChReconfRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationItem-PhyChReconfRqstTDD   CRITICALITY notify TYPE UL-DPCH-InformationItem-PhyChReconfRqstTDD     PRESENCE mandatory }
}

UL-DPCH-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    repetitionPeriod              RepetitionPeriod        OPTIONAL,
    repetitionLength              RepetitionLength        OPTIONAL,
    tDD-DPCHOffset                TDD-DPCHOffset          OPTIONAL,
    uL-Timeslot-InformationList-PhyChReconfRqstTDD        UL-Timeslot-InformationList-PhyChReconfRqstTDD    OPTIONAL,
    --For 3.84Mcps TDD only
    iE-Extensions                 ProtocolExtensionContainer { {UL-DPCH-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
```

```
}

UL-DPCH-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-Timeslot-LCR-InformationList-PhyChReconfRqstTDD   CRITICALITY reject     EXTENSION  UL-TimeslotLCR-InformationList-
PhyChReconfRqstTDD       PRESENCE optional }|
    --For 1.28Mcps TDD only
    { ID id-UL-Timeslot-InformationList-PhyChReconfRqstTDD768   CRITICALITY reject     EXTENSION  UL-Timeslot-InformationList-
PhyChReconfRqstTDD768       PRESENCE optional },
    --For 7.68Mcps TDD only
    ...
}

UL-TimeslotLCR-InformationList-PhyChReconfRqstTDD::= SEQUENCE ( SIZE (1..maxNrOfTsLCR)) OF UL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD

UL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    timeSlotLCR                    TimeSlotLCR,
    midambleShiftLCR               MidambleShiftLCR        OPTIONAL,
    tFCI-Presence                  TFCI-Presence          OPTIONAL,
    uL-Code-LCR-Information         TDD-UL-Code-LCR-Information     OPTIONAL,
    iE-Extensions                  ProtocolExtensionContainer { {UL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-PLCCH-Information-PhyChReconfRqstTDD         CRITICALITY reject     EXTENSION PLCCHinformation   PRESENCE optional },
    ...
}

UL-Timeslot-InformationList-PhyChReconfRqstTDD::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF UL-Timeslot-InformationItem-PhyChReconfRqstTDD

UL-Timeslot-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    timeSlot                       TimeSlot,
    midambleShiftAndBurstType               MidambleShiftAndBurstType       OPTIONAL,
    tFCI-Presence                  TFCI-Presence          OPTIONAL,
    uL-Code-Information         TDD-UL-Code-Information       OPTIONAL,
    iE-Extensions                  ProtocolExtensionContainer { {UL-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Timeslot-InformationList-PhyChReconfRqstTDD768::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF UL-Timeslot-InformationItem-PhyChReconfRqstTDD768

UL-Timeslot-InformationItem-PhyChReconfRqstTDD768 ::= SEQUENCE {
    timeSlot                       TimeSlot,
    midambleShiftAndBurstType768   MidambleShiftAndBurstType768        OPTIONAL,
    tFCI-Presence                  TFCI-Presence          OPTIONAL,
    uL-Code-Information768          TDD-UL-Code-Information768      OPTIONAL,
    iE-Extensions                  ProtocolExtensionContainer { {UL-Timeslot-InformationItem-PhyChReconfRqstTDD768-ExtIEs} } OPTIONAL,
    ...
}
```

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```
UL-Timeslot-InformationItem-PhyChReconfRqstTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationList-PhyChReconfRqstTDD        ::= ProtocolIE-Single-Container { {DL-CCTrCH-InformationListIEs-PhyChReconfRqstTDD} }

DL-CCTrCH-InformationListIEs-PhyChReconfRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD    CRITICALITY reject  TYPE DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD    PRESENCE
mandatory    }
}

DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationItem-PhyChReconfRqstTDD

DL-CCTrCH-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID                    CCTrCH-ID,
    dl-DPCH-Information           DL-DPCH-InformationList-PhyChReconfRqstTDD,
    iE-Extensions                ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationList-PhyChReconfRqstTDD ::= ProtocolIE-Single-Container {{DL-DPCH-InformationListIEs-PhyChReconfRqstTDD}}

DL-DPCH-InformationListIEs-PhyChReconfRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationItem-PhyChReconfRqstTDD   CRITICALITY notify TYPE DL-DPCH-InformationItem-PhyChReconfRqstTDD    PRESENCE mandatory }
}

DL-DPCH-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    repetitionPeriod             RepetitionPeriod        OPTIONAL,
    repetitionLength             RepetitionLength        OPTIONAL,
    tDD-DPCHOffset               TDD-DPCHOffset          OPTIONAL,
    dL-Timeslot-InformationList-PhyChReconfRqstTDD       DL-Timeslot-InformationList-PhyChReconfRqstTDD   OPTIONAL,
    iE-Extensions                ProtocolExtensionContainer { {DL-DPCH-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-Timeslot-LCR-InformationList-PhyChReconfRqstTDD    CRITICALITY reject     EXTENSION DL-TimeslotLCR-InformationList-
PhyChReconfRqstTDD      PRESENCE optional }|
    --For 1.28Mcps TDD only
    { ID id-DL-Timeslot-InformationList-PhyChReconfRqstTDD768     CRITICALITY reject     EXTENSION DL-Timeslot-InformationList-
PhyChReconfRqstTDD768      PRESENCE optional },
    --For 7.68Mcps TDD only
    ...
}

DL-TimeslotLCR-InformationList-PhyChReconfRqstTDD::= SEQUENCE ( SIZE (1..maxNrOfTsLCR)) OF DL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD

DL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    timeSlotLCR                  TimeSlotLCR,
    midambleShiftLCR             MidambleShiftLCR        OPTIONAL,
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```
    tFCI-Presence                       TFCI-Presence        OPTIONAL,
    dL-Code-LCR-Information              TDD-DL-Code-LCR-Information      OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { {DL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Timeslot-InformationList-PhyChReconfRqstTDD::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF DL-Timeslot-InformationItem-PhyChReconfRqstTDD

DL-Timeslot-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    timeSlot                        TimeSlot,
    midambleShiftAndBurstType                   MidambleShiftAndBurstType        OPTIONAL,
    tFCI-Presence                   TFCI-Presence        OPTIONAL,
    dL-Code-Information         TDD-DL-Code-Information    OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DL-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Timeslot-InformationList-PhyChReconfRqstTDD768::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF DL-Timeslot-InformationItem-PhyChReconfRqstTDD768

DL-Timeslot-InformationItem-PhyChReconfRqstTDD768 ::= SEQUENCE {
    timeSlot                        TimeSlot,
    midambleShiftAndBurstType768    MidambleShiftAndBurstType768         OPTIONAL,
    tFCI-Presence                   TFCI-Presence        OPTIONAL,
    dL-Code-Information768          TDD-DL-Code-Information768       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DL-Timeslot-InformationItem-PhyChReconfRqstTDD768-ExtIEs} } OPTIONAL,
    ...
}

DL-Timeslot-InformationItem-PhyChReconfRqstTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDLTs)) OF HSPDSCH-Timeslot-InformationItem-PhyChReconfRqstTDD

HSPDSCH-Timeslot-InformationItem-PhyChReconfRqstTDD::= SEQUENCE {
    timeslot                                        TimeSlot,
    midambleShiftAndBurstType                       MidambleShiftAndBurstType,
    iE-Extensions                                   ProtocolExtensionContainer { { HSPDSCH-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs } }
            OPTIONAL,
    ...
}

HSPDSCH-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
HSPDSCH-Timeslot-InformationListLCR-PhyChReconfRqstTDD::= SEQUENCE (SIZE (1..maxNrOfDLTsLCR)) OF HSPDSCH-Timeslot-InformationItemLCR-
PhyChReconfRqstTDD

HSPDSCH-Timeslot-InformationItemLCR-PhyChReconfRqstTDD::= SEQUENCE {
    timeslotLCR                             TimeSlotLCR,
    midambleShiftLCR                        MidambleShiftLCR,
    iE-Extensions                           ProtocolExtensionContainer { { HSPDSCH-Timeslot-InformationItemLCR-PhyChReconfRqstTDD-ExtIEs } }
        OPTIONAL,
    ...
}

HSPDSCH-Timeslot-InformationItemLCR-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD768 ::= SEQUENCE (SIZE (1..maxNrOfDLTs)) OF HSPDSCH-Timeslot-InformationItem-
PhyChReconfRqstTDD768

HSPDSCH-Timeslot-InformationItem-PhyChReconfRqstTDD768::= SEQUENCE {
    timeslot                                TimeSlot,
    midambleShiftAndBurstType768            MidambleShiftAndBurstType768,
    iE-Extensions                           ProtocolExtensionContainer { { HSPDSCH-Timeslot-InformationItem-PhyChReconfRqstTDD768-ExtIEs }
}         OPTIONAL,
    ...
}

HSPDSCH-Timeslot-InformationItem-PhyChReconfRqstTDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

PhysicalChannelReconfigurationRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- PHYSICAL CHANNEL RECONFIGURATION COMMAND
--
-- **************************************************************

PhysicalChannelReconfigurationCommand ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container       {{PhysicalChannelReconfigurationCommand-IEs}},
    protocolExtensions          ProtocolExtensionContainer {{PhysicalChannelReconfigurationCommand-Extensions}}           OPTIONAL,
    ...
}

PhysicalChannelReconfigurationCommand-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-CFN                 CRITICALITY ignore  TYPE CFN                        PRESENCE mandatory   } |
    { ID id-CriticalityDiagnostics      CRITICALITY ignore  TYPE CriticalityDiagnostics     PRESENCE optional },
    ...
}

PhysicalChannelReconfigurationCommand-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

-- ***************************************************************
--
-- PHYSICAL CHANNEL RECONFIGURATION FAILURE
--
-- ***************************************************************

PhysicalChannelReconfigurationFailure ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{PhysicalChannelReconfigurationFailure-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{PhysicalChannelReconfigurationFailure-Extensions}}             OPTIONAL,
    ...
}

PhysicalChannelReconfigurationFailure-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-Cause                   CRITICALITY ignore  TYPE Cause                      PRESENCE mandatory } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics     PRESENCE optional },
    ...
}

PhysicalChannelReconfigurationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- ***************************************************************
--
-- RADIO LINK CONGESTION INDICATION
--
-- ***************************************************************

RadioLinkCongestionIndication ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkCongestionIndication-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkCongestionIndication-Extensions}}             OPTIONAL,
    ...
}

RadioLinkCongestionIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-CongestionCause                 CRITICALITY ignore  TYPE CongestionCause                    PRESENCE optional }|
    { ID id-RL-InformationList-RL-CongestInd    CRITICALITY ignore  TYPE RL-InformationList-RL-CongestInd    PRESENCE mandatory },
    ...
}

RL-InformationList-RL-CongestInd                 ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationItemIEs-RL-
CongestInd} }

RL-InformationItemIEs-RL-CongestInd RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-RL-CongestInd        CRITICALITY ignore  TYPE RL-InformationItem-RL-CongestInd    PRESENCE mandatory   }
}

RL-InformationItem-RL-CongestInd ::= SEQUENCE {
    rL-ID                       RL-ID,
    dCH-Rate-Information         DCH-Rate-Information-RL-CongestInd,
    iE-Extensions               ProtocolExtensionContainer { {RL-Information-RL-CongestInd-ExtIEs} } OPTIONAL,
    ...
```

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}

DCH-Rate-Information-RL-CongestInd ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF ProtocolIE-Single-Container { {DCH-Rate-InformationItemIEs-RL-
CongestInd} }

DCH-Rate-InformationItemIEs-RL-CongestInd RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-Rate-InformationItem-RL-CongestInd    CRITICALITY ignore  TYPE DCH-Rate-InformationItem-RL-CongestInd    PRESENCE mandatory   }
}

DCH-Rate-InformationItem-RL-CongestInd ::= SEQUENCE {
    dCH-ID                      DCH-ID,
    allowed-Rate-Information    Allowed-Rate-Information OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {DCH-Rate-InformationItem-RL-CongestInd-ExtIEs} } OPTIONAL,
    ...
}

DCH-Rate-InformationItem-RL-CongestInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Information-RL-CongestInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-EDCH-MacdFlowSpecificInformationList-RL-CongestInd  CRITICALITY ignore  EXTENSION EDCH-MacdFlowSpecificInformationList-RL-CongestInd
PRESENCE optional }|
    { ID id-DCH-Indicator-For-E-DCH-HSDPA-Operation    CRITICALITY ignore  EXTENSION DCH-Indicator-For-E-DCH-HSDPA-Operation
          PRESENCE optional },
    ...
}

RadioLinkCongestionIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

EDCH-MacdFlowSpecificInformationList-RL-CongestInd  ::= SEQUENCE (SIZE (1.. maxNrOfEDCHMACdFlows)) OF ProtocolIE-Single-Container { {EDCH-
MacdFlowSpecificInformationItemIEs-RL-CongestInd} }

EDCH-MacdFlowSpecificInformationItemIEs-RL-CongestInd RNSAP-PROTOCOL-IES ::= {
    { ID id-EDCH-MacdFlowSpecificInformationItem-RL-CongestInd    CRITICALITY ignore  TYPE EDCH-MacdFlowSpecificInformationItem-RL-CongestInd
    PRESENCE mandatory   }
}

EDCH-MacdFlowSpecificInformationItem-RL-CongestInd ::= SEQUENCE {
    eDCH-MACdFlow-ID            EDCH-MACdFlow-ID,
    iE-Extensions              ProtocolExtensionContainer { { EDCH-MacdFlowSpecificInformation-RL-CongestInd-ExtIEs} } OPTIONAL,
    ...
}

EDCH-MacdFlowSpecificInformation-RL-CongestInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- ****************************************************************
--
-- UPLINK SIGNALLING TRANSFER INDICATION FDD
--
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-- **************************************************************

UplinkSignallingTransferIndicationFDD ::= SEQUENCE {
    protocolIEs                   ProtocolIE-Container     {{UplinkSignallingTransferIndicationFDD-IEs}},
    protocolExtensions            ProtocolExtensionContainer {{UplinkSignallingTransferIndicationFDD-Extensions}}                OPTIONAL,
    ...
}

UplinkSignallingTransferIndicationFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UC-ID                     CRITICALITY ignore  TYPE UC-ID                    PRESENCE mandatory } |
    { ID id-SAI                       CRITICALITY ignore  TYPE SAI                      PRESENCE mandatory } |
    { ID id-GA-Cell                   CRITICALITY ignore  TYPE GA-Cell                  PRESENCE optional } |
    { ID id-C-RNTI                    CRITICALITY ignore  TYPE C-RNTI                   PRESENCE mandatory } |
    { ID id-S-RNTI                    CRITICALITY ignore  TYPE S-RNTI                   PRESENCE mandatory } |
    { ID id-D-RNTI                    CRITICALITY ignore  TYPE D-RNTI                   PRESENCE optional  } |
    { ID id-PropagationDelay          CRITICALITY ignore  TYPE PropagationDelay         PRESENCE mandatory } |
    { ID id-STTD-SupportIndicator             CRITICALITY ignore  TYPE STTD-SupportIndicator  PRESENCE mandatory } |
    { ID id-ClosedLoopMode1-SupportIndicator  CRITICALITY ignore  TYPE ClosedLoopMode1-SupportIndicator PRESENCE mandatory } |
    { ID id-L3-Information            CRITICALITY ignore  TYPE L3-Information            PRESENCE mandatory } |
    { ID id-CN-PS-DomainIdentifier            CRITICALITY ignore  TYPE CN-PS-DomainIdentifier    PRESENCE optional } |
    { ID id-CN-CS-DomainIdentifier            CRITICALITY ignore  TYPE CN-CS-DomainIdentifier    PRESENCE optional } |
    { ID id-URA-Information                    CRITICALITY ignore  TYPE URA-Information           PRESENCE optional },
    ...
}

UplinkSignallingTransferIndicationFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes           CRITICALITY ignore  EXTENSION GA-CellAdditionalShapes       PRESENCE optional }|
    { ID id-DPC-Mode-Change-SupportIndicator  CRITICALITY ignore  EXTENSION DPC-Mode-Change-SupportIndicator  PRESENCE optional }|
    { ID id-CommonTransportChannelResourcesInitialisationNotRequired   CRITICALITY ignore  EXTENSION
CommonTransportChannelResourcesInitialisationNotRequired    PRESENCE optional }|
    { ID id-CellCapabilityContainer-FDD       CRITICALITY ignore  EXTENSION CellCapabilityContainer-FDD      PRESENCE optional }|
    { ID id-SNA-Information                    CRITICALITY ignore  EXTENSION SNA-Information                  PRESENCE optional }|
    { ID id-CellPortionID                     CRITICALITY ignore  EXTENSION CellPortionID                    PRESENCE optional }|
    { ID id-Active-MBMS-Bearer-ServiceFDD      CRITICALITY ignore  EXTENSION Active-MBMS-Bearer-Service-ListFDD    PRESENCE optional}|
    { ID id-Inter-Frequency-Cell-List         CRITICALITY ignore  EXTENSION Inter-Frequency-Cell-List        PRESENCE optional }|
    { ID id-ExtendedPropagationDelay          CRITICALITY ignore  EXTENSION ExtendedPropagationDelay         PRESENCE optional }|
    { ID id-HSDSCH-RNTI                        CRITICALITY ignore  EXTENSION HSDSCH-RNTI                      PRESENCE optional }|
    { ID id-Multiple-PLMN-List                CRITICALITY ignore  EXTENSION Multiple-PLMN-List               PRESENCE optional }|
    { ID id-Max-UE-DTX-Cycle   CRITICALITY ignore  EXTENSION Max-UE-DTX-Cycle  PRESENCE conditional },
    -- This IE shall be present if the Continuous Packet Connectivity DTX-DRX Support Indicator IE in Cell Capability Container FDD IE is set to 1.
    ...
}

-- **************************************************************
--
-- UPLINK SIGNALLING TRANSFER INDICATION TDD
--
-- **************************************************************

UplinkSignallingTransferIndicationTDD ::= SEQUENCE {
    protocolIEs                   ProtocolIE-Container     {{UplinkSignallingTransferIndicationTDD-IEs}},
    protocolExtensions            ProtocolExtensionContainer {{UplinkSignallingTransferIndicationTDD-Extensions}}                OPTIONAL,
    ...
}
```

```
UplinkSignallingTransferIndicationTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UC-ID                       CRITICALITY ignore  TYPE UC-ID                  PRESENCE mandatory } |
    { ID id-SAI                         CRITICALITY ignore  TYPE SAI                    PRESENCE mandatory  } |
    { ID id-GA-Cell                     CRITICALITY ignore  TYPE GA-Cell                PRESENCE optional } |
    { ID id-C-RNTI                      CRITICALITY ignore  TYPE C-RNTI                 PRESENCE mandatory } |
    { ID id-S-RNTI                      CRITICALITY ignore  TYPE S-RNTI                 PRESENCE mandatory } |
    { ID id-D-RNTI                      CRITICALITY ignore  TYPE D-RNTI                 PRESENCE optional   } |
    { ID id-RxTimingDeviationForTA      CRITICALITY ignore  TYPE RxTimingDeviationForTA PRESENCE mandatory } |
    { ID id-L3-Information              CRITICALITY ignore  TYPE L3-Information          PRESENCE mandatory   } |
    { ID id-CN-PS-DomainIdentifier      CRITICALITY ignore  TYPE CN-PS-DomainIdentifier     PRESENCE optional } |
    { ID id-CN-CS-DomainIdentifier      CRITICALITY ignore  TYPE CN-CS-DomainIdentifier     PRESENCE optional } |
    { ID id-URA-Information             CRITICALITY ignore  TYPE URA-Information             PRESENCE optional },
    ...
}

UplinkSignallingTransferIndicationTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes         CRITICALITY ignore EXTENSION  GA-CellAdditionalShapes     PRESENCE optional }|
    { ID id-CommonTransportChannelResourcesInitialisationNotRequired    CRITICALITY ignore  EXTENSION
CommonTransportChannelResourcesInitialisationNotRequired          PRESENCE optional    }|
    { ID id-CellCapabilityContainer-TDD     CRITICALITY ignore  EXTENSION   CellCapabilityContainer-TDD    PRESENCE optional }|
        -- Applicable to 3.84Mcps TDD only
    { ID id-CellCapabilityContainer-TDD-LCR CRITICALITY ignore  EXTENSION   CellCapabilityContainer-TDD-LCR     PRESENCE optional }|
        -- Applicable to 1.28Mcps TDD only
    { ID id-SNA-Information                  CRITICALITY ignore  EXTENSION   SNA-Information                PRESENCE optional }|
    { ID id-Active-MBMS-Bearer-ServiceTDD        CRITICALITY ignore   EXTENSION Active-MBMS-Bearer-Service-ListTDD      PRESENCE optional}|
    { ID id-CellCapabilityContainer-TDD768       CRITICALITY ignore  EXTENSION CellCapabilityContainer-TDD768     PRESENCE optional }|
    -- Applicable to 7.68Mcps TDD only
    { ID id-RxTimingDeviationForTA768       CRITICALITY ignore  EXTENSION  RxTimingDeviationForTA768     PRESENCE optional }|
    { ID id-RxTimingDeviationForTAext       CRITICALITY ignore  EXTENSION  RxTimingDeviationForTAext     PRESENCE optional }|
    { ID id-Multiple-PLMN-List              CRITICALITY ignore  EXTENSION Multiple-PLMN-List             PRESENCE optional },
    ...

}

-- ****************************************************************
--
-- DOWNLINK SIGNALLING TRANSFER REQUEST
--
-- ****************************************************************

DownlinkSignallingTransferRequest ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container        {{DownlinkSignallingTransferRequest-IEs}},
    protocolExtensions          ProtocolExtensionContainer {{DownlinkSignallingTransferRequest-Extensions}}          OPTIONAL,
    ...
}

DownlinkSignallingTransferRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-C-ID                      CRITICALITY ignore  TYPE C-ID                   PRESENCE mandatory } |
    -- May be a GERAN cell identifier
    { ID id-D-RNTI                    CRITICALITY ignore  TYPE D-RNTI                 PRESENCE mandatory } |
    { ID id-L3-Information            CRITICALITY ignore  TYPE L3-Information          PRESENCE mandatory } |
    { ID id-D-RNTI-ReleaseIndication     CRITICALITY ignore  TYPE D-RNTI-ReleaseIndication     PRESENCE mandatory  },
    ...
```

```
}

DownlinkSignallingTransferRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-URA-ID                      CRITICALITY ignore    EXTENSION   URA-ID                        PRESENCE optional}|
    { ID id-MBMS-Bearer-Service-List    CRITICALITY ignore  EXTENSION MBMS-Bearer-Service-List          PRESENCE optional}|
    { ID id-Old-URA-ID                  CRITICALITY ignore    EXTENSION   URA-ID                        PRESENCE optional}|
    { ID id-SRNC-ID                     CRITICALITY ignore    EXTENSION   RNC-ID                        PRESENCE conditional}|
    -- This IE shall be present if the URA-ID IE or Old URA-ID IE is present.
    { ID id-Extended-SRNC-ID            CRITICALITY reject    EXTENSION   Extended-RNC-ID               PRESENCE optional}|
    { ID id-Enhanced-PCH-Capability     CRITICALITY ignore    EXTENSION   Enhanced-PCH-Capability       PRESENCE optional},
    -- FDD only
    ...
}


-- **************************************************************
--
-- RELOCATION COMMIT
--
-- **************************************************************

RelocationCommit ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container       {{RelocationCommit-IEs}},
    protocolExtensions          ProtocolExtensionContainer {{RelocationCommit-Extensions}}             OPTIONAL,
    ...
}

RelocationCommit-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-D-RNTI                      CRITICALITY ignore  TYPE D-RNTI                      PRESENCE optional   } |
    { ID id-RANAP-RelocationInformation     CRITICALITY ignore  TYPE RANAP-RelocationInformation     PRESENCE optional },
    ...
}

RelocationCommit-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- PAGING REQUEST
--
-- **************************************************************

PagingRequest ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container       {{PagingRequest-IEs}},
    protocolExtensions          ProtocolExtensionContainer {{PagingRequest-Extensions}}               OPTIONAL,
    ...
}

PagingRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-PagingArea-PagingRqst           CRITICALITY ignore  TYPE PagingArea-PagingRqst       PRESENCE mandatory   } |
    { ID id-SRNC-ID                     CRITICALITY ignore  TYPE RNC-ID                          PRESENCE mandatory } | -- May be a BSC-Id.
    { ID id-S-RNTI                      CRITICALITY ignore  TYPE S-RNTI                          PRESENCE mandatory } |
    { ID id-IMSI                        CRITICALITY ignore  TYPE IMSI                            PRESENCE mandatory } |
```

```
    { ID id-DRXCycleLengthCoefficient              CRITICALITY ignore  TYPE DRXCycleLengthCoefficient              PRESENCE mandatory   }|
    { ID id-CNOriginatedPage-PagingRqst            CRITICALITY ignore  TYPE CNOriginatedPage-PagingRqst            PRESENCE optional    },
    ...
}

PagingArea-PagingRqst ::= CHOICE {
    uRA                     URA-PagingRqst, -- May be a GRA-ID.
    cell                    Cell-PagingRqst, -- UTRAN only
    ...
}

URA-PagingRqst ::= SEQUENCE {
    uRA-ID                  URA-ID,
    iE-Extensions           ProtocolExtensionContainer { { URAItem-PagingRqst-ExtIEs} } OPTIONAL,
    ...
}

URAItem-PagingRqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Cell-PagingRqst ::= SEQUENCE {
    c-ID                    C-ID,
    iE-Extensions           ProtocolExtensionContainer { { CellItem-PagingRqst-ExtIEs} } OPTIONAL,
    ...
}

CellItem-PagingRqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CNOriginatedPage-PagingRqst::= SEQUENCE {
    pagingCause             PagingCause,
    cNDomainType            CNDomainType,
    pagingRecordType        PagingRecordType,
    iE-Extensions           ProtocolExtensionContainer { { CNOriginatedPage-PagingRqst-ExtIEs} } OPTIONAL,
    ...
}

CNOriginatedPage-PagingRqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

PagingRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-SRNC-ID         CRITICALITY reject     EXTENSION   Extended-RNC-ID         PRESENCE optional}|
    { ID id-Enhanced-PCH-Capability  CRITICALITY ignore     EXTENSION   Enhanced-PCH-Capability PRESENCE optional},
    -- FDD only
    ...
}

-- **************************************************************
--
-- DEDICATED MEASUREMENT INITIATION REQUEST
--
```

```
-- **************************************************************

DedicatedMeasurementInitiationRequest ::= SEQUENCE {
    protocolIEs                      ProtocolIE-Container        {{DedicatedMeasurementInitiationRequest-IEs}},
    protocolExtensions               ProtocolExtensionContainer {{DedicatedMeasurementInitiationRequest-Extensions}}                        OPTIONAL,
    ...
}

DedicatedMeasurementInitiationRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID                      CRITICALITY reject  TYPE MeasurementID                      PRESENCE mandatory   } |
    { ID id-DedicatedMeasurementObjectType-DM-Rqst CRITICALITY reject  TYPE DedicatedMeasurementObjectType-DM-Rqst PRESENCE mandatory   } |

    { ID id-DedicatedMeasurementType           CRITICALITY reject  TYPE DedicatedMeasurementType           PRESENCE mandatory   } |
    { ID id-MeasurementFilterCoefficient       CRITICALITY reject  TYPE MeasurementFilterCoefficient       PRESENCE optional } |
    { ID id-ReportCharacteristics              CRITICALITY reject  TYPE ReportCharacteristics              PRESENCE mandatory   }|
    { ID id-CFNReportingIndicator              CRITICALITY reject  TYPE FNReportingIndicator               PRESENCE mandatory   }|
    { ID id-CFN                                CRITICALITY reject  TYPE CFN                                PRESENCE optional   },
    ...
}

DedicatedMeasurementObjectType-DM-Rqst ::= CHOICE {
    rL                      RL-DM-Rqst,
    rLS                     RL-Set-DM-Rqst,
    allRL                   All-RL-DM-Rqst,
    allRLS                  All-RL-Set-DM-Rqst,
    ...
}

RL-DM-Rqst ::= SEQUENCE {
    rL-InformationList-DM-Rqst      RL-InformationList-DM-Rqst,
    iE-Extensions                   ProtocolExtensionContainer { { RLItem-DM-Rqst-ExtIEs} } OPTIONAL,
    ...
    }

RLItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-DM-Rqst                  ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-DM-Rqst-IEs} }

RL-Information-DM-Rqst-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rqst     CRITICALITY reject  TYPE RL-InformationItem-DM-Rqst     PRESENCE mandatory   }
}

RL-InformationItem-DM-Rqst ::= SEQUENCE {
    rL-ID                   RL-ID,
    dPCH-ID                 DPCH-ID    OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { {RL-InformationItem-DM-Rqst-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSSICH-Info-DM-Rqst                CRITICALITY reject           EXTENSION HSSICH-Info-DM-Rqst                          PRESENCE
optional}|
```

```
    -- TDD only
    { ID id-DPCH-ID768-DM-Rqst                 CRITICALITY reject            EXTENSION DPCH-ID768                          PRESENCE optional}|
    { ID id-HSSICH-Info-DM-Rqst-Extension      CRITICALITY reject            EXTENSION HSSICH-Info-DM-Rqst-Extension       PRESENCE optional},
    -- Applicable for 1.28Mcps TDD only when the HS-SICH ID IE is more than 31
    ...
}

HSSICH-Info-DM-Rqst ::= SEQUENCE (SIZE (1..maxNrOfHSSICHs)) OF HS-SICH-ID

HSSICH-Info-DM-Rqst-Extension ::= SEQUENCE (SIZE (1..maxNrOfHSSICHs)) OF HS-SICH-ID-Extension

RL-Set-DM-Rqst ::= SEQUENCE {
    rL-Set-InformationList-DM-Rqst  RL-Set-InformationList-DM-Rqst,
    iE-Extensions                   ProtocolExtensionContainer { { RL-SetItem-DM-Rqst-ExtIEs} } OPTIONAL,
    ...
    }

RL-SetItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-InformationList-DM-Rqst                  ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-DM-
Rqst-IEs} }

RL-Set-Information-DM-Rqst-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-DM-Rqst     CRITICALITY reject  TYPE RL-Set-InformationItem-DM-Rqst     PRESENCE mandatory  }
}

RL-Set-InformationItem-DM-Rqst ::= SEQUENCE {
    rL-Set-ID                     RL-Set-ID,
    iE-Extensions                 ProtocolExtensionContainer { {RL-Set-InformationItem-DM-Rqst-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-InformationItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

All-RL-DM-Rqst ::= NULL

All-RL-Set-DM-Rqst ::= NULL

DedicatedMeasurementInitiationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-PartialReportingIndicator      CRITICALITY ignore           EXTENSION  PartialReportingIndicator                      PRESENCE optional
    }|
    { ID   id-MeasurementRecoveryBehavior              CRITICALITY ignore              EXTENSION MeasurementRecoveryBehavior       PRESENCE optional
    }|
    { ID id-AlternativeFormatReportingIndicator    CRITICALITY ignore            EXTENSION   AlternativeFormatReportingIndicator      PRESENCE
optional },
    ...
}

-- **************************************************************
--
```

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```
-- DEDICATED MEASUREMENT INITIATION RESPONSE
--
-- *****************************************************************

DedicatedMeasurementInitiationResponse ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container      {{DedicatedMeasurementInitiationResponse-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{DedicatedMeasurementInitiationResponse-Extensions}}                    OPTIONAL,
    ...
}

DedicatedMeasurementInitiationResponse-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID                CRITICALITY ignore  TYPE MeasurementID                PRESENCE mandatory   } |
    { ID id-DedicatedMeasurementObjectType-DM-Rsp  CRITICALITY ignore  TYPE DedicatedMeasurementObjectType-DM-Rsp PRESENCE optional } |
    { ID id-CriticalityDiagnostics       CRITICALITY ignore  TYPE CriticalityDiagnostics       PRESENCE optional },
    ...
}

DedicatedMeasurementObjectType-DM-Rsp ::= CHOICE {
    rLs                     RL-DM-Rsp,
    rLS                     RL-Set-DM-Rsp,
    allRL                   RL-DM-Rsp,
    allRLS                  RL-Set-DM-Rsp,
    ...
}

RL-DM-Rsp ::= SEQUENCE {
    rL-InformationList-DM-Rsp       RL-InformationList-DM-Rsp,
    iE-Extensions                   ProtocolExtensionContainer { { RLItem-DM-Rsp-ExtIEs} } OPTIONAL,
    ...
}

RLItem-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-DM-Rsp ::= SEQUENCE {
    rL-Set-InformationList-DM-Rsp   RL-Set-InformationList-DM-Rsp,
    iE-Extensions                   ProtocolExtensionContainer { { RL-SetItem-DM-Rsp-ExtIEs} } OPTIONAL,
    ...
}

RL-SetItem-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-DM-Rsp                       ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-DM-Rsp-IEs} }

RL-Information-DM-Rsp-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rsp       CRITICALITY ignore  TYPE RL-InformationItem-DM-Rsp    PRESENCE mandatory   }
}

RL-InformationItem-DM-Rsp ::= SEQUENCE {
    rL-ID                   RL-ID,
    dPCH-ID                 DPCH-ID             OPTIONAL,
```

```
    dedicatedMeasurementValue        DedicatedMeasurementValue,
    cFN                      CFN                     OPTIONAL,
    iE-Extensions                 ProtocolExtensionContainer { {RL-InformationItem-DM-Rsp-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationItem-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-HSSICH-Info-DM      CRITICALITY reject          EXTENSION   HS-SICH-ID     PRESENCE optional}|
    -- TDD only
    { ID    id-multiple-DedicatedMeasurementValueList-TDD-DM-Rsp   CRITICALITY ignore  EXTENSION Multiple-DedicatedMeasurementValueList-TDD-DM-Rsp
    PRESENCE optional    }|
    -- Applicable to 3.84Mcps TDD only. This list of dedicated measurement values is used for the 2nd and beyond measurements of a RL when multiple
dedicated measurement values need to be reported.
    { ID    id-multiple-DedicatedMeasurementValueList-LCR-TDD-DM-Rsp   CRITICALITY ignore  EXTENSION Multiple-DedicatedMeasurementValueList-LCR-
TDD-DM-Rsp PRESENCE optional    }|
    -- Applicable to 1.28Mcps TDD only. This list of dedicated measurement values is used for the 2nd and beyond measurements of a RL when multiple
dedicated measurement values need to be reported.
    { ID    id-multiple-HSSICHMeasurementValueList-TDD-DM-Rsp         CRITICALITY ignore  EXTENSION Multiple-HSSICHMeasurementValueList-TDD-DM-
Rsp PRESENCE optional    }|
    -- TDD only. This list of HS-SICH measurement values is used for the 2nd and beyond measurements of a RL when multiple HS-SICH measurement
values need to be reported.
    { ID    id-multiple-DedicatedMeasurementValueList-TDD768-DM-Rsp   CRITICALITY ignore  EXTENSION Multiple-DedicatedMeasurementValueList-
TDD768-DM-Rsp    PRESENCE optional    }|
    -- Applicable to 7.68Mcps TDD only. This list of dedicated measurement values is used for the 2nd and beyond measurements of a RL when multiple
dedicated measurement values need to be reported.
    { ID    id-DPCH-ID768-DM-Rsp                      CRITICALITY ignore  EXTENSION DPCH-ID768
    PRESENCE optional}|
    { ID id-HS-SICH-ID-Extension                      CRITICALITY ignore  EXTENSION HS-SICH-ID-Extension
    PRESENCE optional},
    -- Applicable for 1.28Mcps TDD only when the HS-SICH ID IE is more than 31
    ...
}

RL-Set-InformationList-DM-Rsp   ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-DM-Rsp-IEs} }

RL-Set-Information-DM-Rsp-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-DM-Rsp      CRITICALITY ignore  TYPE RL-Set-InformationItem-DM-Rsp     PRESENCE mandatory   }
}

RL-Set-InformationItem-DM-Rsp ::= SEQUENCE {
    rL-Set-ID                 RL-Set-ID,
    dedicatedMeasurementValue        DedicatedMeasurementValue,
    cFN                      CFN                     OPTIONAL,
    iE-Extensions                 ProtocolExtensionContainer { {RL-Set-InformationItem-DM-Rspns-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-InformationItem-DM-Rspns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DedicatedMeasurementInitiationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID    id-MeasurementRecoverySupportIndicator    CRITICALITY ignore      EXTENSION   MeasurementRecoverySupportIndicator    PRESENCE optional
    },
```

```
    ...
}

Multiple-DedicatedMeasurementValueList-TDD-DM-Rsp ::= SEQUENCE (SIZE (1.. maxNrOfDPCHsPerRL-1)) OF Multiple-DedicatedMeasurementValueItem-TDD-DM-
Rsp

Multiple-DedicatedMeasurementValueItem-TDD-DM-Rsp ::= SEQUENCE {
    dPCH-ID                         DPCH-ID,
    dedicatedMeasurementValue       DedicatedMeasurementValue,
    iE-Extensions                   ProtocolExtensionContainer { { Multiple-DedicatedMeasurementValueItem-TDD-DM-Rsp-ExtIEs} }   OPTIONAL,
    ...

}

Multiple-DedicatedMeasurementValueItem-TDD-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Multiple-DedicatedMeasurementValueList-LCR-TDD-DM-Rsp ::= SEQUENCE (SIZE (1.. maxNrOfDPCHsLCRPerRL-1)) OF Multiple-DedicatedMeasurementValueItem-
LCR-TDD-DM-Rsp

Multiple-DedicatedMeasurementValueItem-LCR-TDD-DM-Rsp ::= SEQUENCE {
    dPCH-ID                         DPCH-ID,
    dedicatedMeasurementValue       DedicatedMeasurementValue,
    iE-Extensions                   ProtocolExtensionContainer { { Multiple-DedicatedMeasurementValueItem-LCR-TDD-DM-Rsp-ExtIEs} }
    OPTIONAL,
    ...
}

Multiple-DedicatedMeasurementValueItem-LCR-TDD-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Multiple-HSSICHMeasurementValueList-TDD-DM-Rsp ::= SEQUENCE (SIZE (1.. maxNrOfHSSICHs-1)) OF Multiple-HSSICHMeasurementValueItem-TDD-DM-Rsp

Multiple-HSSICHMeasurementValueItem-TDD-DM-Rsp ::= SEQUENCE {
    hsSICH-ID                       HS-SICH-ID,
    dedicatedMeasurementValue       DedicatedMeasurementValue,
    iE-Extensions                   ProtocolExtensionContainer { { Multiple-HSSICHMeasurementValueItem-TDD-DM-Rsp-ExtIEs} }   OPTIONAL,
    ...
}


Multiple-HSSICHMeasurementValueItem-TDD-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HS-SICH-ID-Extension          CRITICALITY ignore     EXTENSION HS-SICH-ID-Extension     PRESENCE optional},
    -- Applicable for 1.28Mcps TDD only when the HS-SICH ID IE is more than 31
    ...
}

Multiple-DedicatedMeasurementValueList-TDD768-DM-Rsp ::= SEQUENCE (SIZE (1.. maxNrOfDPCHs768PerRL-1)) OF Multiple-DedicatedMeasurementValueItem-
TDD768-DM-Rsp

Multiple-DedicatedMeasurementValueItem-TDD768-DM-Rsp ::= SEQUENCE {
    dPCH-ID768                      DPCH-ID768,
```

```
    dedicatedMeasurementValue            DedicatedMeasurementValue,
    iE-Extensions                        ProtocolExtensionContainer { { Multiple-DedicatedMeasurementValueItem-TDD768-DM-Rsp-ExtIEs} }   OPTIONAL,
    ...

}

Multiple-DedicatedMeasurementValueItem-TDD768-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *************************************************************
--
-- DEDICATED MEASUREMENT INITIATION FAILURE
--
-- *************************************************************

DedicatedMeasurementInitiationFailure ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container      {{DedicatedMeasurementInitiationFailure-IEs}},
    protocolExtensions          ProtocolExtensionContainer {{DedicatedMeasurementInitiationFailure-Extensions}}                    OPTIONAL,
    ...
}

DedicatedMeasurementInitiationFailure-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID             CRITICALITY ignore  TYPE MeasurementID             PRESENCE mandatory  } |
    { ID id-Cause                     CRITICALITY ignore  TYPE Cause                     PRESENCE mandatory  } |
    { ID id-CriticalityDiagnostics        CRITICALITY ignore  TYPE CriticalityDiagnostics     PRESENCE optional },
    ...
}

DedicatedMeasurementInitiationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DedicatedMeasurementObjectType-DM-Fail  CRITICALITY ignore  EXTENSION DedicatedMeasurementObjectType-DM-Fail PRESENCE optional },
    ...
}

DedicatedMeasurementObjectType-DM-Fail ::= CHOICE {
    rL                RL-DM-Fail,
    rLS               RL-Set-DM-Fail,
    allRL             RL-DM-Fail,
    allRLS            RL-Set-DM-Fail,
    ...
}

RL-DM-Fail ::= SEQUENCE {
    rL-unsuccessful-InformationRespList-DM-Fail     RL-Unsuccessful-InformationRespList-DM-Fail,
    rL-successful-InformationRespList-DM-Fail       RL-Successful-InformationRespList-DM-Fail       OPTIONAL,
    iE-Extensions                     ProtocolExtensionContainer { { RLItem-DM-Fail-ExtIEs} } OPTIONAL,
    ...
}

RLItem-DM-Fail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-DM-Fail ::= SEQUENCE {
```

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```
    rL-Set-unsuccessful-InformationRespList-DM-Fail RL-Set-Unsuccessful-InformationRespList-DM-Fail,
    rL-Set-successful-InformationRespList-DM-Fail   RL-Set-Successful-InformationRespList-DM-Fail        OPTIONAL,
    iE-Extensions                        ProtocolExtensionContainer { { RL-SetItem-DM-Fail-ExtIEs} } OPTIONAL,
    ...
}

RL-SetItem-DM-Fail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Unsuccessful-InformationRespList-DM-Fail            ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Unsuccessful-
InformationResp-DM-Fail-IEs} }

RL-Unsuccessful-InformationResp-DM-Fail-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Unsuccessful-InformationItem-DM-Fail    CRITICALITY ignore  TYPE RL-Unsuccessful-InformationItem-DM-Fail    PRESENCE mandatory   }
}

RL-Unsuccessful-InformationItem-DM-Fail ::= SEQUENCE {
    rL-ID                    RL-ID,
    individualcause          Cause   OPTIONAL,
    iE-Extensions            ProtocolExtensionContainer { {RL-Unsuccessful-InformationItem-DM-Fail-ExtIEs} } OPTIONAL,
    ...
}

RL-Unsuccessful-InformationItem-DM-Fail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Successful-InformationRespList-DM-Fail            ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { {RL-Successful-
InformationResp-DM-Fail-IEs} }

RL-Successful-InformationResp-DM-Fail-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Successful-InformationItem-DM-Fail     CRITICALITY ignore  TYPE RL-Successful-InformationItem-DM-Fail   PRESENCE mandatory   }
}

RL-Successful-InformationItem-DM-Fail ::= SEQUENCE {
    rL-ID                    RL-ID,
    dPCH-ID                  DPCH-ID              OPTIONAL,
    dedicatedMeasurementValue   DedicatedMeasurementValue,
    cFN                      CFN              OPTIONAL,
    iE-Extensions            ProtocolExtensionContainer { {RL-Successful-InformationItem-DM-Fail-ExtIEs} } OPTIONAL,
    ...
}

RL-Successful-InformationItem-DM-Fail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-HSSICH-Info-DM                      CRITICALITY reject                 EXTENSION   HS-SICH-ID              PRESENCE optional}|
    -- TDD only
    { ID id-HS-SICH-ID-Extension               CRITICALITY ignore                 EXTENSION HS-SICH-ID-Extension       PRESENCE optional},
    -- Applicable for 1.28Mcps TDD only when the HS-SICH ID IE is more than 31
    ...
}

RL-Set-Unsuccessful-InformationRespList-DM-Fail               ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-
Unsuccessful-InformationResp-DM-Fail-IEs} }
```

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```
RL-Set-Unsuccessful-InformationResp-DM-Fail-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-Unsuccessful-InformationItem-DM-Fail    CRITICALITY ignore  TYPE RL-Set-Unsuccessful-InformationItem-DM-Fail    PRESENCE
mandatory   }
}

RL-Set-Unsuccessful-InformationItem-DM-Fail ::= SEQUENCE {
    rL-Set-ID                      RL-Set-ID,
    individualcause                Cause     OPTIONAL,
    iE-Extensions                  ProtocolExtensionContainer { {RL-Set-Unsuccessful-InformationItem-DM-Failns-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-Unsuccessful-InformationItem-DM-Failns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-Successful-InformationRespList-DM-Fail                ::= SEQUENCE (SIZE (1..maxNrOfRLSets-1)) OF ProtocolIE-Single-Container { {RL-Set-
Successful-InformationResp-DM-Fail-IEs} }

RL-Set-Successful-InformationResp-DM-Fail-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-Successful-InformationItem-DM-Fail       CRITICALITY ignore  TYPE RL-Set-Successful-InformationItem-DM-Fail    PRESENCE
mandatory   }
}

RL-Set-Successful-InformationItem-DM-Fail ::= SEQUENCE {
    rL-Set-ID                      RL-Set-ID,
    dedicatedMeasurementValue      DedicatedMeasurementValue,
    cFN                            CFN                     OPTIONAL,
    iE-Extensions                  ProtocolExtensionContainer { {RL-Set-Successful-InformationItem-DM-Failns-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-Successful-InformationItem-DM-Failns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- ************************************************************
--
-- DEDICATED MEASUREMENT REPORT
--
-- ************************************************************

DedicatedMeasurementReport ::= SEQUENCE {
    protocolIEs                ProtocolIE-Container     {{DedicatedMeasurementReport-IEs}},
    protocolExtensions         ProtocolExtensionContainer {{DedicatedMeasurementReport-Extensions}}                 OPTIONAL,
    ...
}

DedicatedMeasurementReport-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID             CRITICALITY ignore  TYPE MeasurementID               PRESENCE mandatory   } |
    { ID id-DedicatedMeasurementObjectType-DM-Rprt  CRITICALITY ignore  TYPE DedicatedMeasurementObjectType-DM-Rprt PRESENCE mandatory   },
    ...
}
```

```
DedicatedMeasurementObjectType-DM-Rprt ::= CHOICE {
    rLs                     RL-DM-Rprt,
    rLS                     RL-Set-DM-Rprt,
    allRL                   RL-DM-Rprt,
    allRLS                  RL-Set-DM-Rprt,
    ...
}

RL-DM-Rprt ::= SEQUENCE {
    rL-InformationList-DM-Rprt      RL-InformationList-DM-Rprt,
    iE-Extensions                   ProtocolExtensionContainer { { RLItem-DM-Rprt-ExtIEs} } OPTIONAL,
    ...
}

RLItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-DM-Rprt ::= SEQUENCE {
    rL-Set-InformationList-DM-Rprt  RL-Set-InformationList-DM-Rprt,
    iE-Extensions                   ProtocolExtensionContainer { { RL-SetItem-DM-Rprt-ExtIEs} } OPTIONAL,
    ...
}

RL-SetItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-DM-Rprt                      ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-DM-Rprt-IEs} }

RL-Information-DM-Rprt-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rprt    CRITICALITY ignore  TYPE RL-InformationItem-DM-Rprt    PRESENCE mandatory   }
}

RL-InformationItem-DM-Rprt ::= SEQUENCE {
    rL-ID                           RL-ID,
    dPCH-ID                         DPCH-ID             OPTIONAL,
    dedicatedMeasurementValueInformation    DedicatedMeasurementValueInformation,
    iE-Extensions                   ProtocolExtensionContainer { {RL-InformationItem-DM-Rprt-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-HSSICH-Info-DM-Rprt      CRITICALITY ignore          EXTENSION   HS-SICH-ID      PRESENCE optional}|
    -- TDD only
    { ID    id-DPCH-ID768-DM-Rprt       CRITICALITY ignore          EXTENSION   DPCH-ID768                      PRESENCE optional}|
    { ID id-HS-SICH-ID-Extension        CRITICALITY ignore          EXTENSION HS-SICH-ID-Extension             PRESENCE optional},
    -- Applicable for 1.28Mcps TDD only when the HS-SICH ID IE is more than 31
    ...
}

RL-Set-InformationList-DM-Rprt                  ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-DM-
Rprt-IEs} }
```

```
RL-Set-Information-DM-Rprt-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-DM-Rprt     CRITICALITY ignore  TYPE RL-Set-InformationItem-DM-Rprt     PRESENCE mandatory  }
}

RL-Set-InformationItem-DM-Rprt ::= SEQUENCE {
    rL-Set-ID                       RL-Set-ID,
    dedicatedMeasurementValueInformation    DedicatedMeasurementValueInformation,
    iE-Extensions                   ProtocolExtensionContainer { {RL-Set-InformationItem-DM-Rprt-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-InformationItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DedicatedMeasurementReport-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID   id-MeasurementRecoveryReportingIndicator     CRITICALITY ignore     EXTENSION   MeasurementRecoveryReportingIndicator   PRESENCE
optional },
    ...
}

-- *************************************************************
--
-- DEDICATED MEASUREMENT TERMINATION REQUEST
--
-- *************************************************************

DedicatedMeasurementTerminationRequest ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container     {{DedicatedMeasurementTerminationRequest-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{DedicatedMeasurementTerminationRequest-Extensions}}            OPTIONAL,
    ...
}

DedicatedMeasurementTerminationRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID              CRITICALITY ignore  TYPE MeasurementID            PRESENCE mandatory  },
    ...
}

DedicatedMeasurementTerminationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *************************************************************
--
-- DEDICATED MEASUREMENT FAILURE INDICATION
--
-- *************************************************************

DedicatedMeasurementFailureIndication ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container     {{DedicatedMeasurementFailureIndication-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{DedicatedMeasurementFailureIndication-Extensions}}            OPTIONAL,
    ...
}
```

```
DedicatedMeasurementFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID             CRITICALITY ignore  TYPE MeasurementID          PRESENCE mandatory  } |
    { ID id-Cause                     CRITICALITY ignore  TYPE Cause                  PRESENCE mandatory  },
    ...
}

DedicatedMeasurementFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DedicatedMeasurementObjectType-DM-Fail-Ind  CRITICALITY ignore  EXTENSION DedicatedMeasurementObjectType-DM-Fail-Ind   PRESENCE optional
    },
    ...
}

DedicatedMeasurementObjectType-DM-Fail-Ind ::= CHOICE {
    rL                    RL-DM-Fail-Ind,
    rLS                   RL-Set-DM-Fail-Ind,
    allRL                 RL-DM-Fail-Ind,
    allRLS                RL-Set-DM-Fail-Ind,
    ...
}

RL-DM-Fail-Ind ::= SEQUENCE {
    rL-unsuccessful-InformationRespList-DM-Fail-Ind      RL-Unsuccessful-InformationRespList-DM-Fail-Ind,
    iE-Extensions                                        ProtocolExtensionContainer { { RLItem-DM-Fail-Ind-ExtIEs} } OPTIONAL,
    ...
}

RLItem-DM-Fail-Ind-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-DM-Fail-Ind ::= SEQUENCE {
    rL-Set-unsuccessful-InformationRespList-DM-Fail-Ind     RL-Set-Unsuccessful-InformationRespList-DM-Fail-Ind,
    iE-Extensions                                        ProtocolExtensionContainer { { RL-SetItem-DM-Fail-Ind-ExtIEs} } OPTIONAL,
    ...
}

RL-SetItem-DM-Fail-Ind-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Unsuccessful-InformationRespList-DM-Fail-Ind          ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Unsuccessful-
InformationResp-DM-Fail-Ind-IEs} }

RL-Unsuccessful-InformationResp-DM-Fail-Ind-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Unsuccessful-InformationItem-DM-Fail-Ind     CRITICALITY ignore  TYPE RL-Unsuccessful-InformationItem-DM-Fail-Ind     PRESENCE
mandatory   }
}

RL-Unsuccessful-InformationItem-DM-Fail-Ind ::= SEQUENCE {
    rL-ID                    RL-ID,
    individualcause          Cause       OPTIONAL,
    iE-Extensions            ProtocolExtensionContainer { {RL-Unsuccessful-InformationItem-DM-Fail-Ind-ExtIEs} } OPTIONAL,
    ...
```

```
}

RL-Unsuccessful-InformationItem-DM-Fail-Ind-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-Unsuccessful-InformationRespList-DM-Fail-Ind                ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-
Unsuccessful-InformationResp-DM-Fail-Ind-IEs} }

RL-Set-Unsuccessful-InformationResp-DM-Fail-Ind-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind    CRITICALITY ignore  TYPE RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind   PRESENCE
mandatory   }
}

RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind ::= SEQUENCE {
    rL-Set-ID                        RL-Set-ID,
    individualcause                  Cause      OPTIONAL,
    iE-Extensions                    ProtocolExtensionContainer { {RL-Set-Unsuccessful-InformationItem-DM-Fail-Indns-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-Unsuccessful-InformationItem-DM-Fail-Indns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- ***************************************************************
--
-- COMMON TRANSPORT CHANNEL RESOURCES RELEASE REQUEST
--
-- ***************************************************************

CommonTransportChannelResourcesReleaseRequest ::= SEQUENCE {
    protocolIEs                      ProtocolIE-Container     {{CommonTransportChannelResourcesReleaseRequest-IEs}},
    protocolExtensions               ProtocolExtensionContainer {{CommonTransportChannelResourcesReleaseRequest-Extensions}}
OPTIONAL,
    ...
}

CommonTransportChannelResourcesReleaseRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-D-RNTI                   CRITICALITY ignore  TYPE D-RNTI                 PRESENCE mandatory },
    ...
}

CommonTransportChannelResourcesReleaseRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- ***************************************************************
--
-- COMMON TRANSPORT CHANNEL RESOURCES REQUEST
--
-- ***************************************************************

CommonTransportChannelResourcesRequest ::= SEQUENCE {
```

```
    protocolIEs                      ProtocolIE-Container      {{CommonTransportChannelResourcesRequest-IEs}},
    protocolExtensions               ProtocolExtensionContainer {{CommonTransportChannelResourcesRequest-Extensions}}      OPTIONAL,
    ...
}

CommonTransportChannelResourcesRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-D-RNTI                   CRITICALITY reject  TYPE D-RNTI                   PRESENCE mandatory } |
    { ID id-C-ID                     CRITICALITY reject  TYPE C-ID                     PRESENCE optional  } |
    { ID id-TransportBearerRequestIndicator   CRITICALITY reject  TYPE TransportBearerRequestIndicator    PRESENCE mandatory  } |
    { ID id-TransportBearerID        CRITICALITY reject  TYPE TransportBearerID        PRESENCE mandatory },
    ...
}

CommonTransportChannelResourcesRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Permanent-NAS-UE-Identity     CRITICALITY ignore         EXTENSION Permanent-NAS-UE-Identity        PRESENCE optional }|
    { ID id-BindingID                     CRITICALITY ignore         EXTENSION  BindingID                       PRESENCE optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress     CRITICALITY ignore         EXTENSION   TransportLayerAddress              PRESENCE optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-MBMS-Bearer-Service-List      CRITICALITY notify         EXTENSION MBMS-Bearer-Service-List          PRESENCE optional}|
    { ID id-TnlQos                        CRITICALITY ignore         EXTENSION   TnlQos                          PRESENCE optional }|
    { ID id-Enhanced-FACH-Support-Indicator   CRITICALITY ignore     EXTENSION Enhanced-FACH-Support-Indicator   PRESENCE optional },
     -- FDD only
    ...}

-- ****************************************************************
--
-- COMMON TRANSPORT CHANNEL RESOURCES RESPONSE FDD
--
-- ****************************************************************

CommonTransportChannelResourcesResponseFDD ::= SEQUENCE {
    protocolIEs                      ProtocolIE-Container      {{CommonTransportChannelResourcesResponseFDD-IEs}},
    protocolExtensions               ProtocolExtensionContainer {{CommonTransportChannelResourcesResponseFDD-Extensions}}      OPTIONAL,
    ...
}

CommonTransportChannelResourcesResponseFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-S-RNTI                   CRITICALITY ignore  TYPE S-RNTI                   PRESENCE mandatory } |
    { ID id-C-RNTI                   CRITICALITY ignore  TYPE C-RNTI                   PRESENCE optional  } |
    { ID id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD   CRITICALITY ignore  TYPE FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD
    PRESENCE mandatory } |
    { ID id-TransportLayerAddress            CRITICALITY ignore  TYPE TransportLayerAddress       PRESENCE optional } |
    { ID id-BindingID                CRITICALITY ignore  TYPE BindingID                PRESENCE optional } |
    { ID id-CriticalityDiagnostics           CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD ::= SEQUENCE {
    fACH-FlowControlInformation      FACH-FlowControlInformation-CTCH-ResourceRspFDD,
-- If the Enhanced FACH Information Response IE is included in the message, the FACH Flow Control Information IE shall be ignored.
    iE-Extensions                    ProtocolExtensionContainer { {FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD-ExtIEs} } OPTIONAL,
    ...
}
```

```
FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-FlowControlInformation-CTCH-ResourceRspFDD ::= ProtocolIE-Single-Container {{ FACH-FlowControlInformationIEs-CTCH-ResourceRspFDD }}

FACH-FlowControlInformationIEs-CTCH-ResourceRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FACH-FlowControlInformation CRITICALITY ignore  TYPE    FACH-FlowControlInformation PRESENCE mandatory }
}

CommonTransportChannelResourcesResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-C-ID                                  CRITICALITY ignore     EXTENSION   C-ID                                 PRESENCE mandatory
}|
    { ID id-Active-MBMS-Bearer-ServiceFDD         CRITICALITY ignore     EXTENSION Active-MBMS-Bearer-Service-ListFDD   PRESENCE optional}|
    { ID id-Enhanced-FACH-Information-ResponseFDD CRITICALITY ignore     EXTENSION Enhanced-FACH-Information-ResponseFDD  PRESENCE
optional},
    ...
}

-- ****************************************************************
--
-- COMMON TRANSPORT CHANNEL RESOURCES RESPONSE TDD
--
-- ****************************************************************

CommonTransportChannelResourcesResponseTDD ::= SEQUENCE {
    protocolIEs                  ProtocolIE-Container      {{CommonTransportChannelResourcesResponseTDD-IEs}},
    protocolExtensions           ProtocolExtensionContainer {{CommonTransportChannelResourcesResponseTDD-Extensions}}     OPTIONAL,
    ...
}

CommonTransportChannelResourcesResponseTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-S-RNTI               CRITICALITY ignore  TYPE S-RNTI                   PRESENCE mandatory } |
    { ID id-C-RNTI               CRITICALITY ignore  TYPE C-RNTI                   PRESENCE optional  } |
    { ID id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD  CRITICALITY ignore  TYPE FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD
    PRESENCE mandatory  } |
    { ID id-TransportLayerAddress         CRITICALITY ignore  TYPE TransportLayerAddress       PRESENCE optional } |
    { ID id-BindingID            CRITICALITY ignore  TYPE BindingID                PRESENCE optional } |
    { ID id-CriticalityDiagnostics        CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD ::= SEQUENCE {
    fACH-FlowControlInformation     FACH-FlowControlInformation-CTCH-ResourceRspTDD,
    iE-Extensions                   ProtocolExtensionContainer { {FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD-ExtIEs} } OPTIONAL,
    ...
}

FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-FlowControlInformation-CTCH-ResourceRspTDD ::= ProtocolIE-Single-Container {{ FACH-FlowControlInformationIEs-CTCH-ResourceRspTDD }}
```

```
FACH-FlowControlInformationIEs-CTCH-ResourceRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FACH-FlowControlInformation CRITICALITY ignore  TYPE    FACH-FlowControlInformation PRESENCE mandatory }
}

CommonTransportChannelResourcesResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-C-ID                              CRITICALITY ignore     EXTENSION   C-ID                                PRESENCE mandatory  }|
    { ID id-Active-MBMS-Bearer-ServiceTDD     CRITICALITY ignore     EXTENSION Active-MBMS-Bearer-Service-ListTDD    PRESENCE optional},
    ...
}

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL RESOURCES FAILURE
--
-- **************************************************************

CommonTransportChannelResourcesFailure ::= SEQUENCE {
    protocolIEs                  ProtocolIE-Container       {{CommonTransportChannelResourcesFailure-IEs}},
    protocolExtensions           ProtocolExtensionContainer {{CommonTransportChannelResourcesFailure-Extensions}}        OPTIONAL,
    ...
}

CommonTransportChannelResourcesFailure-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-S-RNTI                   CRITICALITY ignore  TYPE S-RNTI                  PRESENCE mandatory } |
    { ID id-Cause                    CRITICALITY ignore  TYPE Cause                   PRESENCE mandatory } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics     PRESENCE optional },
    ...
}

CommonTransportChannelResourcesFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMPRESSED MODE COMMAND
--
-- **************************************************************

CompressedModeCommand ::= SEQUENCE {
    protocolIEs                  ProtocolIE-Container       {{CompressedModeCommand-IEs}},
    protocolExtensions           ProtocolExtensionContainer {{CompressedModeCommand-Extensions}}                    OPTIONAL,
    ...
}

CompressedModeCommand-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-Active-Pattern-Sequence-Information     CRITICALITY ignore  TYPE Active-Pattern-Sequence-Information     PRESENCE mandatory },
    ...
}

CompressedModeCommand-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
-- ************************************************************
--
-- ERROR INDICATION
--
-- ************************************************************

ErrorIndication ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container      {{ErrorIndication-IEs}},
    protocolExtensions          ProtocolExtensionContainer {{ErrorIndication-Extensions}}                OPTIONAL,
    ...
}

ErrorIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-Cause                     CRITICALITY ignore  TYPE Cause                    PRESENCE optional} |
    { ID id-CriticalityDiagnostics         CRITICALITY ignore  TYPE CriticalityDiagnostics     PRESENCE optional },
    ...
}

ErrorIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-S-RNTI                   CRITICALITY ignore  EXTENSION S-RNTI              PRESENCE optional } |
    { ID id-D-RNTI                   CRITICALITY ignore  EXTENSION D-RNTI              PRESENCE optional },
    ...
}

-- ************************************************************
--
-- COMMON MEASUREMENT INITIATION REQUEST
--
-- ************************************************************

CommonMeasurementInitiationRequest ::= SEQUENCE {
    protocolIEs           ProtocolIE-Container    {{CommonMeasurementInitiationRequest-IEs}},
    protocolExtensions    ProtocolExtensionContainer {{CommonMeasurementInitiationRequest-Extensions}}    OPTIONAL,
    ...
}

CommonMeasurementInitiationRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID    id-MeasurementID                            CRITICALITY reject      TYPE    MeasurementID                    PRESENCE
    mandatory    }|
    { ID    id-CommonMeasurementObjectType-CM-Rqst      CRITICALITY reject      TYPE    CommonMeasurementObjectType-CM-Rqst    PRESENCE
    mandatory    }|

    { ID    id-CommonMeasurementType                    CRITICALITY reject      TYPE    CommonMeasurementType            PRESENCE
    mandatory    }|
    { ID    id-MeasurementFilterCoefficient             CRITICALITY reject      TYPE    MeasurementFilterCoefficient     PRESENCE optional
    }|
    -- UTRAN only
    { ID    id-ReportCharacteristics                    CRITICALITY reject      TYPE    ReportCharacteristics            PRESENCE
    mandatory    }|
    { ID    id-SFNReportingIndicator                    CRITICALITY reject      TYPE    FNReportingIndicator             PRESENCE
    mandatory
    } |
    { ID    id-SFN                                      CRITICALITY reject      TYPE    SFN                              PRESENCE optional
```

```
    }|
    -- UTRAN only
    { ID   id-CommonMeasurementAccuracy                         CRITICALITY reject        TYPE   CommonMeasurementAccuracy       PRESENCE optional
    },
    -- UTRAN only
    ...
}

CommonMeasurementInitiationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-MeasurementRecoveryBehavior              CRITICALITY ignore           EXTENSION   MeasurementRecoveryBehavior   PRESENCE optional
    },
    -- UTRAN only
    ...
}

CommonMeasurementObjectType-CM-Rqst ::= CHOICE {
    cell                        Cell-CM-Rqst,
    ...
}

Cell-CM-Rqst ::= SEQUENCE {
    uC-ID                       UC-ID,
    -- May be a GERAN cell identifier
    timeSlot                    TimeSlot      OPTIONAL,    --3.84Mcps TDD and 7.68Mcps TDD only
    timeSlotLCR                 TimeSlotLCR   OPTIONAL,    --1.28Mcps TDD only
    neighbouringCellMeasurementInformation       NeighbouringCellMeasurementInfo    OPTIONAL,
    -- UTRAN only
    iE-Extensions               ProtocolExtensionContainer { { CellItem-CM-Rqst-ExtIEs} }   OPTIONAL,
    ...
}

NeighbouringCellMeasurementInfo ::= SEQUENCE (SIZE (1..maxNrOfMeasNCell)) OF
        CHOICE {
                neighbouringFDDCellMeasurementInformation       NeighbouringFDDCellMeasurementInformation,
                neighbouringTDDCellMeasurementInformation       NeighbouringTDDCellMeasurementInformation,
                ...,
                extension-neighbouringCellMeasurementInformation    Extension-neighbouringCellMeasurementInformation,
                extension-neighbouringCellMeasurementInformation768 Extension-neighbouringCellMeasurementInformation768
            }

Extension-neighbouringCellMeasurementInformation    ::= ProtocolIE-Single-Container {{ Extension-neighbouringCellMeasurementInformationIE }}

Extension-neighbouringCellMeasurementInformationIE RNSAP-PROTOCOL-IES ::= {
    { ID id-neighbouringTDDCellMeasurementInformationLCR    CRITICALITY reject  TYPE NeighbouringTDDCellMeasurementInformationLCR PRESENCE
mandatory },
    ...
}

Extension-neighbouringCellMeasurementInformation768 ::= ProtocolIE-Single-Container {{ Extension-neighbouringCellMeasurementInformation768IE }}

Extension-neighbouringCellMeasurementInformation768IE RNSAP-PROTOCOL-IES ::= {
    { ID id-neighbouringTDDCellMeasurementInformation768    CRITICALITY reject  TYPE NeighbouringTDDCellMeasurementInformation768 PRESENCE
mandatory },
```

ETSI

```
    ...
}

CellItem-CM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UARFCNforNt               CRITICALITY ignore  EXTENSION UARFCN              PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-UPPCHPositionLCR          CRITICALITY reject  EXTENSION UPPCHPositionLCR    PRESENCE optional},
    -- Applicable to 1.28Mcps TDD only
    ...
}

-- **************************************************************
--
-- COMMON MEASUREMENT INITIATION RESPONSE
--
-- **************************************************************

CommonMeasurementInitiationResponse ::= SEQUENCE {
    protocolIEs           ProtocolIE-Container    {{CommonMeasurementInitiationResponse-IEs}},
    protocolExtensions    ProtocolExtensionContainer {{CommonMeasurementInitiationResponse-Extensions}}    OPTIONAL,
    ...
}

CommonMeasurementInitiationResponse-IEs RNSAP-PROTOCOL-IES ::= {
    { ID    id-MeasurementID                          CRITICALITY ignore      TYPE    MeasurementID                        PRESENCE
    mandatory   }|
    { ID    id-CommonMeasurementObjectType-CM-Rsp     CRITICALITY ignore      TYPE    CommonMeasurementObjectType-CM-Rsp   PRESENCE optional
    }|
    { ID    id-SFN                                    CRITICALITY ignore      TYPE    SFN                                  PRESENCE optional
    }|
    -- UTRAN only
    { ID    id-CriticalityDiagnostics                 CRITICALITY ignore      TYPE    CriticalityDiagnostics               PRESENCE optional
    }|
    { ID    id-CommonMeasurementAccuracy              CRITICALITY reject      TYPE    CommonMeasurementAccuracy            PRESENCE optional
    },
    -- UTRAN only
    ...
}

CommonMeasurementInitiationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID    id-MeasurementRecoverySupportIndicator    CRITICALITY ignore      EXTENSION   MeasurementRecoverySupportIndicator    PRESENCE optional
    },
    -- UTRAN only
    ...
}

CommonMeasurementObjectType-CM-Rsp ::= CHOICE {
    cell                      Cell-CM-Rsp,
    ...
 }

Cell-CM-Rsp ::= SEQUENCE {
    commonMeasurementValue                  CommonMeasurementValue,
    iE-Extensions                           ProtocolExtensionContainer { { CellItem-CM-Rsp-ExtIEs} }    OPTIONAL,
```

```
    ...
 }

CellItem-CM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON MEASUREMENT INITIATION FAILURE
--
-- **************************************************************

CommonMeasurementInitiationFailure ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{CommonMeasurementInitiationFailure-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{CommonMeasurementInitiationFailure-Extensions}}    OPTIONAL,
    ...
}

CommonMeasurementInitiationFailure-IEs RNSAP-PROTOCOL-IES ::= {
    { ID    id-MeasurementID            CRITICALITY    ignore      TYPE    MeasurementID            PRESENCE mandatory   }|
    { ID    id-Cause                    CRITICALITY    ignore      TYPE    Cause                    PRESENCE mandatory   }|
    { ID    id-CriticalityDiagnostics   CRITICALITY    ignore      TYPE    CriticalityDiagnostics   PRESENCE optional },
    ...
}

CommonMeasurementInitiationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON MEASUREMENT REPORT
--
-- **************************************************************

CommonMeasurementReport ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{CommonMeasurementReport-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{CommonMeasurementReport-Extensions}}    OPTIONAL,
    ...
}

CommonMeasurementReport-IEs RNSAP-PROTOCOL-IES ::= {
    { ID    id-MeasurementID                         CRITICALITY ignore      TYPE    MeasurementID                     PRESENCE mandatory   }|
    { ID    id-CommonMeasurementObjectType-CM-Rprt   CRITICALITY ignore      TYPE    CommonMeasurementObjectType-CM-Rprt   PRESENCE
    mandatory   }|
    { ID    id-SFN                                   CRITICALITY ignore      TYPE    SFN                               PRESENCE optional },
    -- UTRAN only
    ...
}

CommonMeasurementReport-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID    id-MeasurementRecoveryReportingIndicator   CRITICALITY ignore     EXTENSION   MeasurementRecoveryReportingIndicator   PRESENCE
optional },
```

```
    -- UTRAN only
    ...
}

CommonMeasurementObjectType-CM-Rprt ::= CHOICE {
    cell                            Cell-CM-Rprt,
    ...
 }

Cell-CM-Rprt ::= SEQUENCE {
    commonMeasurementValueInformation   CommonMeasurementValueInformation,
    iE-Extensions                   ProtocolExtensionContainer {{ CellItem-CM-Rprt-ExtIEs }}    OPTIONAL,
    ...

 }

CellItem-CM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- ************************************************************
--
-- COMMON MEASUREMENT TERMINATION REQUEST
--
-- ************************************************************

CommonMeasurementTerminationRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CommonMeasurementTerminationRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer {{CommonMeasurementTerminationRequest-Extensions}}    OPTIONAL,
    ...
}

CommonMeasurementTerminationRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID   id-MeasurementID           CRITICALITY   ignore          TYPE   MeasurementID      PRESENCE mandatory},
    ...
}

CommonMeasurementTerminationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- ************************************************************
--
-- COMMON MEASUREMENT FAILURE INDICATION
--
-- ************************************************************

CommonMeasurementFailureIndication ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{CommonMeasurementFailureIndication-IEs}},
    protocolExtensions      ProtocolExtensionContainer {{CommonMeasurementFailureIndication-Extensions}}        OPTIONAL,
    ...
}

CommonMeasurementFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
```

```
    { ID    id-MeasurementID              CRITICALITY ignore      TYPE    MeasurementID       PRESENCE mandatory  }|
    { ID    id-Cause                      CRITICALITY ignore      TYPE    Cause               PRESENCE mandatory  },
    ...
}

CommonMeasurementFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- INFORMATION EXCHANGE INITIATION REQUEST
--
-- **************************************************************

InformationExchangeInitiationRequest ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{InformationExchangeInitiationRequest-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{InformationExchangeInitiationRequest-Extensions}}     OPTIONAL,
    ...
}

InformationExchangeInitiationRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID    id-InformationExchangeID                      CRITICALITY reject      TYPE    InformationExchangeID                PRESENCE mandatory
    }|
    { ID    id-InformationExchangeObjectType-InfEx-Rqst   CRITICALITY reject      TYPE    InformationExchangeObjectType-InfEx-Rqst    PRESENCE
    mandatory   }|

    { ID    id-InformationType                            CRITICALITY reject      TYPE    InformationType                      PRESENCE mandatory
    }|
    { ID    id-InformationReportCharacteristics           CRITICALITY reject      TYPE    InformationReportCharacteristics     PRESENCE mandatory
    },
    ...
}

InformationExchangeInitiationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

InformationExchangeObjectType-InfEx-Rqst ::= CHOICE {
    cell                                            Cell-InfEx-Rqst,
    ...,
    extension-InformationExchangeObjectType-InfEx-Rqst      Extension-InformationExchangeObjectType-InfEx-Rqst

}

Cell-InfEx-Rqst ::= SEQUENCE {
    c-ID                       C-ID, --May be a GERAN cell identifier
    iE-Extensions              ProtocolExtensionContainer { { CellItem-InfEx-Rqst-ExtIEs} }    OPTIONAL,
    ...
}

CellItem-InfEx-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
Extension-InformationExchangeObjectType-InfEx-Rqst  ::= ProtocolIE-Single-Container {{ Extension-InformationExchangeObjectType-InfEx-RqstIE }}

Extension-InformationExchangeObjectType-InfEx-RqstIE RNSAP-PROTOCOL-IES ::= {
    { ID id-GSM-Cell-InfEx-Rqst CRITICALITY reject  TYPE GSM-Cell-InfEx-Rqst     PRESENCE mandatory }|
    { ID id-MBMS-Bearer-Service-List        CRITICALITY    reject    TYPE    MBMS-Bearer-Service-List     PRESENCE mandatory}

}

GSM-Cell-InfEx-Rqst ::= SEQUENCE {
    cGI                             CGI,
    iE-Extensions                   ProtocolExtensionContainer  { { GSMCellItem-InfEx-Rqst-ExtIEs} }   OPTIONAL,
    ...
}

GSMCellItem-InfEx-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {

    ...
}


-- ****************************************************************
--
-- INFORMATION EXCHANGE INITIATION RESPONSE
--
-- ****************************************************************

InformationExchangeInitiationResponse ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container     {{InformationExchangeInitiationResponse-IEs}},
    protocolExtensions      ProtocolExtensionContainer {{InformationExchangeInitiationResponse-Extensions}}    OPTIONAL,
    ...
}

InformationExchangeInitiationResponse-IEs RNSAP-PROTOCOL-IES ::= {
    { ID    id-InformationExchangeID                        CRITICALITY ignore      TYPE    InformationExchangeID               PRESENCE
    mandatory   }|
    { ID    id-InformationExchangeObjectType-InfEx-Rsp      CRITICALITY ignore      TYPE    InformationExchangeObjectType-InfEx-Rsp    PRESENCE
    optional    }|
    { ID    id-CriticalityDiagnostics                       CRITICALITY ignore      TYPE    CriticalityDiagnostics              PRESENCE optional
    },
    ...
}

InformationExchangeInitiationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {

    ...
}

InformationExchangeObjectType-InfEx-Rsp ::= CHOICE {
    cell                    Cell-InfEx-Rsp,
    ...,
    extension-InformationExchangeObjectType-InfEx-Rsp      Extension-InformationExchangeObjectType-InfEx-Rsp
}

Cell-InfEx-Rsp ::= SEQUENCE {
    requestedDataValue          RequestedDataValue,
```

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```
    iE-Extensions                    ProtocolExtensionContainer { { CellItem-InfEx-Rsp-ExtIEs} }     OPTIONAL,
    ...
}

CellItem-InfEx-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


Extension-InformationExchangeObjectType-InfEx-Rsp   ::= ProtocolIE-Single-Container {{ Extension-InformationExchangeObjectType-InfEx-RspIE }}

Extension-InformationExchangeObjectType-InfEx-RspIE RNSAP-PROTOCOL-IES ::= {
    { ID id-MBMS-Bearer-Service-List-InfEx-Rsp CRITICALITY    ignore    TYPE    MBMS-Bearer-Service-List-InfEx-Rsp    PRESENCE mandatory}
}

MBMS-Bearer-Service-List-InfEx-Rsp  ::= SEQUENCE (SIZE (1..maxNrOfMBMSServices)) OF MBMS-Bearer-ServiceItemIEs-InfEx-Rsp


MBMS-Bearer-ServiceItemIEs-InfEx-Rsp    ::=SEQUENCE{
    tmgi    TMGI,
    requestedDataValue       RequestedDataValue,
    iE-Extensions                    ProtocolExtensionContainer { { MBMS-Bearer-ServiceItem-InfEx-Rsp-ExtIEs} } OPTIONAL,
    ...
}

MBMS-Bearer-ServiceItem-InfEx-Rsp-ExtIEs    RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
-- ***************************************************************
--
-- INFORMATION EXCHANGE INITIATION FAILURE
--
-- ***************************************************************

InformationExchangeInitiationFailure ::= SEQUENCE {
    protocolIEs            ProtocolIE-Container    {{InformationExchangeInitiationFailure-IEs}},
    protocolExtensions     ProtocolExtensionContainer  {{InformationExchangeInitiationFailure-Extensions}}    OPTIONAL,
    ...
}

InformationExchangeInitiationFailure-IEs RNSAP-PROTOCOL-IES ::= {
    { ID    id-InformationExchangeID             CRITICALITY    ignore       TYPE    InformationExchangeID         PRESENCE mandatory   }|
    { ID    id-Cause                             CRITICALITY    ignore       TYPE    Cause                         PRESENCE mandatory   }|
    { ID    id-CriticalityDiagnostics            CRITICALITY    ignore       TYPE    CriticalityDiagnostics        PRESENCE optional },
    ...
}

InformationExchangeInitiationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- ***************************************************************
--
```

```
-- INFORMATION REPORT
--
-- *************************************************************

InformationReport ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{InformationReport-IEs}},
    protocolExtensions      ProtocolExtensionContainer {{InformationReport-Extensions}}        OPTIONAL,
    ...
}

InformationReport-IEs RNSAP-PROTOCOL-IES ::= {
    { ID    id-InformationExchangeID                              CRITICALITY ignore       TYPE    InformationExchangeID                          PRESENCE
    mandatory   }|
    { ID    id-InformationExchangeObjectType-InfEx-Rprt     CRITICALITY ignore       TYPE    InformationExchangeObjectType-InfEx-Rprt   PRESENCE
    mandatory   },
    ...
}

InformationReport-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

InformationExchangeObjectType-InfEx-Rprt ::= CHOICE {
    cell                        Cell-InfEx-Rprt,
    ...
 }

Cell-InfEx-Rprt ::= SEQUENCE {
    requestedDataValueInformation   RequestedDataValueInformation,
    iE-Extensions                   ProtocolExtensionContainer {{ CellItem-InfEx-Rprt-ExtIEs }}    OPTIONAL,
    ...

 }

CellItem-InfEx-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


-- *************************************************************
--
-- INFORMATION EXCHANGE TERMINATION REQUEST
--
-- *************************************************************

InformationExchangeTerminationRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{InformationExchangeTerminationRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer {{InformationExchangeTerminationRequest-Extensions}}    OPTIONAL,
    ...
}

InformationExchangeTerminationRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID    id-InformationExchangeID            CRITICALITY    ignore           TYPE    InformationExchangeID        PRESENCE mandatory},
    ...
```

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```
}

InformationExchangeTerminationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


-- *************************************************************
--
-- INFORMATION EXCHANGE FAILURE INDICATION
--
-- *************************************************************

InformationExchangeFailureIndication ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{InformationExchangeFailureIndication-IEs}},
    protocolExtensions          ProtocolExtensionContainer  {{InformationExchangeFailureIndication-Extensions}}        OPTIONAL,
    ...
}

InformationExchangeFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID    id-InformationExchangeID              CRITICALITY ignore        TYPE    InformationExchangeID       PRESENCE mandatory   }|
    { ID    id-Cause                              CRITICALITY ignore        TYPE    Cause                       PRESENCE mandatory   },
    ...
}

InformationExchangeFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *************************************************************
--
-- RESET REQUEST
--
-- *************************************************************

ResetRequest ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{ResetRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{ResetRequest-Extensions}}     OPTIONAL,
    ...
}

ResetRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RNC-ID            CRITICALITY reject TYPE RNC-ID     PRESENCE mandatory} |
    { ID id-ResetIndicator    CRITICALITY reject     TYPE    ResetIndicator    PRESENCE   mandatory},
    ...
}

ResetRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-RNC-ID              CRITICALITY reject  EXTENSION Extended-RNC-ID       PRESENCE optional},
    ...
}

ResetIndicator ::= CHOICE {
    context        ContextList-Reset,
```

```
    all-contexts          NULL,
    ...,
    contextGroup     ContextGroupList-Reset
}

ContextList-Reset ::= SEQUENCE {
    contextInfoList-Reset      ContextInfoList-Reset,
    iE-Extensions                         ProtocolExtensionContainer { {ContextItem-Reset-ExtIEs} }    OPTIONAL,
    ...
}

ContextItem-Reset-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

ContextInfoList-Reset ::= SEQUENCE (SIZE (1.. maxResetContext)) OF ProtocolIE-Single-Container {{ ContextInfoItemIE-Reset }}

ContextInfoItemIE-Reset RNSAP-PROTOCOL-IES ::= {
    {ID id-ContextInfoItem-Reset       CRITICALITY reject      TYPE ContextInfoItem-Reset      PRESENCE mandatory}
}

ContextInfoItem-Reset ::= SEQUENCE {
    contextType-Reset          ContextType-Reset,
    iE-Extensions              ProtocolExtensionContainer { { ContextInfoItem-Reset-ExtIEs} }   OPTIONAL,
    ...
}

ContextInfoItem-Reset-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

ContextType-Reset ::= CHOICE {
    sRNTI           S-RNTI,
    dRNTI           D-RNTI,
    ...
}

ContextGroupList-Reset ::= SEQUENCE {
    contextGroupInfoList-Reset      ContextGroupInfoList-Reset,
    iE-Extensions                         ProtocolExtensionContainer { {ContextGroupItem-Reset-ExtIEs} }    OPTIONAL,
    ...
}

ContextGroupItem-Reset-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

ContextGroupInfoList-Reset ::= SEQUENCE (SIZE (1.. maxResetContextGroup))  OF ProtocolIE-Single-Container {{ ContextGroupInfoItemIE-Reset }}

ContextGroupInfoItemIE-Reset RNSAP-PROTOCOL-IES ::= {
    {ID id-ContextGroupInfoItem-Reset       CRITICALITY reject      TYPE ContextGroupInfoItem-Reset      PRESENCE mandatory}
}

ContextGroupInfoItem-Reset ::= SEQUENCE {
```

```
    s-RNTI-Group               S-RNTI-Group,
    iE-Extensions              ProtocolExtensionContainer { { ContextGroupInfoItem-Reset-ExtIEs} }    OPTIONAL,
    ...
}

ContextGroupInfoItem-Reset-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *************************************************************
--
-- RESET RESPONSE
--
-- *************************************************************

ResetResponse ::= SEQUENCE {
    protocolIEs           ProtocolIE-Container    {{ResetResponse-IEs}},
    protocolExtensions    ProtocolExtensionContainer {{ResetResponse-Extensions}}          OPTIONAL,
    ...
}

ResetResponse-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RNC-ID              CRITICALITY ignore  TYPE RNC-ID      PRESENCE mandatory} |
    { ID id-CriticalityDiagnostics     CRITICALITY     ignore      TYPE    CriticalityDiagnostics    PRESENCE optional},
    ...
}

ResetResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-RNC-ID             CRITICALITY reject  EXTENSION Extended-RNC-ID       PRESENCE optional},
    ...
}

-- *************************************************************
--
-- RADIO LINK ACTIVATION COMMAND FDD
--
-- *************************************************************

RadioLinkActivationCommandFDD ::= SEQUENCE {
    protocolIEs           ProtocolIE-Container    {{RadioLinkActivationCommandFDD-IEs}},
    protocolExtensions    ProtocolExtensionContainer {{RadioLinkActivationCommandFDD-Extensions}}     OPTIONAL,
    ...
}

RadioLinkActivationCommandFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DelayedActivationList-RL-ActivationCmdFDD      CRITICALITY ignore  TYPE    DelayedActivationInformationList-RL-ActivationCmdFDD
    PRESENCE    mandatory   },
    ...
}

RadioLinkActivationCommandFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

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```
DelayedActivationInformationList-RL-ActivationCmdFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {
    { DelayedActivationInformation-RL-ActivationCmdFDD-IEs} }

DelayedActivationInformation-RL-ActivationCmdFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DelayedActivationInformation-RL-ActivationCmdFDD   CRITICALITY ignore  TYPE DelayedActivationInformation-RL-ActivationCmdFDD  PRESENCE
optional   }
}

DelayedActivationInformation-RL-ActivationCmdFDD ::= SEQUENCE {
    rL-ID                     RL-ID,
    delayed-activation-update  DelayedActivationUpdate,
    iE-Extensions             ProtocolExtensionContainer { { DelayedActivationInformation-RL-ActivationCmdFDD-ExtIEs} } OPTIONAL,
    ...
}

DelayedActivationInformation-RL-ActivationCmdFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {

    ...
}

-- *************************************************************
--
-- RADIO LINK ACTIVATION COMMAND TDD
--
-- *************************************************************

RadioLinkActivationCommandTDD ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{RadioLinkActivationCommandTDD-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{RadioLinkActivationCommandTDD-Extensions}}      OPTIONAL,
    ...
}

RadioLinkActivationCommandTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DelayedActivationList-RL-ActivationCmdTDD      CRITICALITY ignore  TYPE   DelayedActivationInformationList-RL-ActivationCmdTDD
    PRESENCE    mandatory   },
    ...
}

RadioLinkActivationCommandTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {

    ...
}

DelayedActivationInformationList-RL-ActivationCmdTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {
    { DelayedActivationInformation-RL-ActivationCmdTDD-IEs} }

DelayedActivationInformation-RL-ActivationCmdTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DelayedActivationInformation-RL-ActivationCmdTDD   CRITICALITY ignore  TYPE DelayedActivationInformation-RL-ActivationCmdTDD  PRESENCE
optional   }
}

DelayedActivationInformation-RL-ActivationCmdTDD ::= SEQUENCE {
    rL-ID                     RL-ID,
    delayed-activation-update  DelayedActivationUpdate,
    iE-Extensions             ProtocolExtensionContainer { { DelayedActivationInformation-RL-ActivationCmdTDD-ExtIEs} } OPTIONAL,
    ...
```

```
}

DelayedActivationInformation-RL-ActivationCmdTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- ****************************************************************
--
-- GERAN UPLINK SIGNALLING TRANSFER INDICATION
--
-- ****************************************************************

GERANUplinkSignallingTransferIndication ::= SEQUENCE {
    protocolIEs                    ProtocolIE-Container      {{GERANUplinkSignallingTransferIndication-IEs}},
    protocolExtensions             ProtocolExtensionContainer {{GERANUplinkSignallingTransferIndication-Extensions}} OPTIONAL,
    ...
}

GERANUplinkSignallingTransferIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UC-ID                      CRITICALITY ignore  TYPE UC-ID                      PRESENCE mandatory } |
    -- UC-Id may be GERAN cell identifier.
    { ID id-SAI                        CRITICALITY ignore  TYPE SAI                        PRESENCE mandatory } |
    { ID id-S-RNTI                     CRITICALITY ignore  TYPE S-RNTI                     PRESENCE mandatory } |
    { ID id-D-RNTI                     CRITICALITY ignore  TYPE D-RNTI                     PRESENCE optional  } |
    { ID id-L3-Information             CRITICALITY ignore  TYPE L3-Information             PRESENCE mandatory } |
    { ID id-CN-PS-DomainIdentifier     CRITICALITY ignore  TYPE CN-PS-DomainIdentifier     PRESENCE optional  } |
    { ID id-CN-CS-DomainIdentifier     CRITICALITY ignore  TYPE CN-CS-DomainIdentifier     PRESENCE optional  } |
    { ID id-URA-Information            CRITICALITY ignore  TYPE URA-Information            PRESENCE optional  },
    -- URA information may be GRA information
    ...
}

GERANUplinkSignallingTransferIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- ****************************************************************
--
-- RADIO LINK PARAMETER UPDATE INDICATION FDD
--
-- ****************************************************************

RadioLinkParameterUpdateIndicationFDD ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{RadioLinkParameterUpdateIndicationFDD-IEs}},
    protocolExtensions   ProtocolExtensionContainer  {{RadioLinkParameterUpdateIndicationFDD-Extensions}}         OPTIONAL,
    ...
}

RadioLinkParameterUpdateIndicationFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID    id-HSDSCH-FDD-Update-Information                          CRITICALITY ignore  TYPE    HSDSCH-FDD-Update-Information        PRESENCE
    optional}|
    { ID    id-RL-ParameterUpdateIndicationFDD-RL-InformationList  CRITICALITY ignore  TYPE    RL-ParameterUpdateIndicationFDD-RL-InformationList
      PRESENCE optional   },
    ...
```

```
}

RL-ParameterUpdateIndicationFDD-RL-InformationList ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { { RL-
ParameterUpdateIndicationFDD-RL-InformationList-IEs} }

RL-ParameterUpdateIndicationFDD-RL-InformationList-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-ParameterUpdateIndicationFDD-RL-Information-Item    CRITICALITY ignore  TYPE RL-ParameterUpdateIndicationFDD-RL-Information-Item
    PRESENCE mandatory  }
}

RL-ParameterUpdateIndicationFDD-RL-Information-Item::= SEQUENCE {
    rL-ID                            RL-ID,
    phase-Reference-Update-Indicator      Phase-Reference-Update-Indicator    OPTIONAL,
    iE-Extensions                    ProtocolExtensionContainer { { RL-ParameterUpdateIndicationFDD-RL-Information-ExtIEs} } OPTIONAL,
    ...
}

RL-ParameterUpdateIndicationFDD-RL-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkParameterUpdateIndicationFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-FDD-Update-Information    CRITICALITY ignore      EXTENSION E-DCH-FDD-Update-Information PRESENCE optional },
    ...
}

-- *************************************************************
--
-- RADIO LINK PARAMETER UPDATE INDICATION TDD
--
-- *************************************************************

RadioLinkParameterUpdateIndicationTDD ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container   {{RadioLinkParameterUpdateIndicationTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkParameterUpdateIndicationTDD-Extensions}}        OPTIONAL,
    ...
}

RadioLinkParameterUpdateIndicationTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID   id-HSDSCH-TDD-Update-Information          CRITICALITY    ignore     TYPE    HSDSCH-TDD-Update-Information        PRESENCE optional},
    ...
}

RadioLinkParameterUpdateIndicationTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *************************************************************
--
-- UE MEASUREMENT INITIATION REQUEST
--
-- *************************************************************

UEMeasurementInitiationRequest ::= SEQUENCE {
```

```
    protocolIEs                     ProtocolIE-Container      {{UEMeasurementInitiationRequest-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{UEMeasurementInitiationRequest-Extensions}}                  OPTIONAL,
    ...
}

UEMeasurementInitiationRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-AllowedQueuingTime                CRITICALITY reject  TYPE AllowedQueuingTime                PRESENCE optional    } |
    { ID id-MeasurementID                     CRITICALITY reject  TYPE MeasurementID                     PRESENCE mandatory   } |
    { ID id-UEMeasurementType                 CRITICALITY reject  TYPE UEMeasurementType                 PRESENCE mandatory   } |
    { ID id-UEMeasurementTimeslotInfoHCR      CRITICALITY reject  TYPE UEMeasurementTimeslotInfoHCR      PRESENCE optional    } |
    { ID id-UEMeasurementTimeslotInfoLCR      CRITICALITY reject  TYPE UEMeasurementTimeslotInfoLCR      PRESENCE optional    } |
    { ID id-MeasurementFilterCoefficient      CRITICALITY reject  TYPE MeasurementFilterCoefficient      PRESENCE optional    } |
    { ID id-UEMeasurementReportCharacteristics  CRITICALITY reject  TYPE UEMeasurementReportCharacteristics  PRESENCE mandatory   } |
    { ID id-UEMeasurementParameterModAllow    CRITICALITY reject  TYPE UEMeasurementParameterModAllow    PRESENCE mandatory   },
    ...
}

UEMeasurementInitiationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UEMeasurementTimeslotInfo768                 CRITICALITY reject  EXTENSION UEMeasurementTimeslotInfo768 PRESENCE optional},
    ...
}

-- ***************************************************************
--
-- UE MEASUREMENT INITIATION RESPONSE
--
-- ***************************************************************

UEMeasurementInitiationResponse ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container      {{UEMeasurementInitiationResponse-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{UEMeasurementInitiationResponse-Extensions}}                 OPTIONAL,
    ...
}

UEMeasurementInitiationResponse-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID                     CRITICALITY ignore  TYPE MeasurementID                     PRESENCE mandatory   } |
    { ID id-MeasurementFilterCoefficient      CRITICALITY reject  TYPE MeasurementFilterCoefficient      PRESENCE optional    } |
    { ID id-UEMeasurementReportCharacteristics  CRITICALITY reject  TYPE UEMeasurementReportCharacteristics  PRESENCE optional    } |
    { ID id-CriticalityDiagnostics            CRITICALITY ignore  TYPE CriticalityDiagnostics            PRESENCE optional },
    ...
}

UEMeasurementInitiationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- ***************************************************************
--
-- UE MEASUREMENT INITIATION FAILURE
--
-- ***************************************************************

UEMeasurementInitiationFailure ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container      {{UEMeasurementInitiationFailure-IEs}},
```

```
    protocolExtensions              ProtocolExtensionContainer {{UEMeasurementInitiationFailure-Extensions}}          OPTIONAL,
    ...
}

UEMeasurementInitiationFailure-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID                 CRITICALITY ignore  TYPE MeasurementID                  PRESENCE mandatory   } |
    { ID id-Cause                         CRITICALITY ignore  TYPE Cause                          PRESENCE mandatory   } |
    { ID id-CriticalityDiagnostics        CRITICALITY ignore  TYPE CriticalityDiagnostics         PRESENCE optional },
    ...
}

UEMeasurementInitiationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- UE MEASUREMENT REPORT
--
-- **************************************************************

UEMeasurementReport ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{UEMeasurementReport-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{UEMeasurementReport-Extensions}}                OPTIONAL,
    ...
}

UEMeasurementReport-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID                 CRITICALITY ignore  TYPE MeasurementID                  PRESENCE mandatory   } |
    { ID id-UEMeasurementValueInformation  CRITICALITY ignore  TYPE UEMeasurementValueInformation  PRESENCE mandatory   },
    ...
}

UEMeasurementReport-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- UE MEASUREMENT TERMINATION REQUEST
--
-- **************************************************************

UEMeasurementTerminationRequest ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{UEMeasurementTerminationRequest-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{UEMeasurementTerminationRequest-Extensions}}          OPTIONAL,
    ...
}

UEMeasurementTerminationRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID                 CRITICALITY ignore  TYPE MeasurementID                  PRESENCE mandatory   },
    ...
}
```

```
UEMeasurementTerminationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


-- **************************************************************
--
-- UE MEASUREMENT FAILURE INDICATION
--
-- **************************************************************

UEMeasurementFailureIndication ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container      {{UEMeasurementFailureIndication-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{UEMeasurementFailureIndication-Extensions}}                 OPTIONAL,
    ...
}

UEMeasurementFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID             CRITICALITY ignore  TYPE MeasurementID            PRESENCE mandatory  } |
    { ID id-Cause                     CRITICALITY ignore  TYPE Cause                    PRESENCE mandatory  },
    ...
}

UEMeasurementFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- IUR INVOKE TRACE
--
-- **************************************************************

IurInvokeTrace ::= SEQUENCE {
    protocolIEs                         ProtocolIE-Container      {{IurInvokeTrace-IEs}},
    protocolExtensions                  ProtocolExtensionContainer {{IurInvokeTrace-Extensions}}    OPTIONAL,
    ...
}

IurInvokeTrace-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-D-RNTI                           CRITICALITY ignore  TYPE D-RNTI                            PRESENCE optional   }|
    { ID id-TraceReference                   CRITICALITY ignore  TYPE TraceReference                    PRESENCE mandatory  }|
    { ID id-UEIdentity                       CRITICALITY ignore  TYPE UEIdentity                        PRESENCE mandatory  }|
    { ID id-TraceRecordingSessionReference   CRITICALITY ignore  TYPE TraceRecordingSessionReference    PRESENCE mandatory  }|
    { ID id-ListOfInterfacesToTrace          CRITICALITY ignore  TYPE ListOfInterfacesToTrace           PRESENCE optional   }|
    { ID id-TraceDepth                       CRITICALITY ignore  TYPE TraceDepth                        PRESENCE mandatory  },
    ...
}

ListOfInterfacesToTrace ::= SEQUENCE (SIZE (1..maxNrOfInterfaces)) OF ProtocolIE-Single-Container {{ InterfacesToBeTracedItemIE }}

InterfacesToBeTracedItemIE RNSAP-PROTOCOL-IES ::= {
    { ID id-InterfacesToTraceItem            CRITICALITY ignore  TYPE InterfacesToTraceItem             PRESENCE mandatory  }
}
```

```
InterfacesToTraceItem ::= SEQUENCE {
    interface                  ENUMERATED {iub,iur,...},
    iE-Extensions              ProtocolExtensionContainer { {InterfacesToTraceItem-ExtIEs} }   OPTIONAL,
    ...
}

InterfacesToTraceItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


IurInvokeTrace-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- IUR DEACTIVATE TRACE
--
-- **************************************************************

IurDeactivateTrace ::= SEQUENCE {
    protocolIEs                          ProtocolIE-Container       {{IurDeactivateTrace-IEs}},
    protocolExtensions                   ProtocolExtensionContainer  {{IurDeactivateTrace-Extensions}}OPTIONAL,
    ...
}

IurDeactivateTrace-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-D-RNTI                           CRITICALITY ignore  TYPE D-RNTI                          PRESENCE optional    }|
    { ID id-TraceReference                   CRITICALITY ignore  TYPE TraceReference                  PRESENCE mandatory   },
    ...
}

IurDeactivateTrace-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- MBMS ATTACH COMMAND
--
-- **************************************************************

MBMSAttachCommand ::= SEQUENCE {
    protocolIEs         ProtocolIE-Container   {{MBMSAttachCommand-IEs}},
    protocolExtensions  ProtocolExtensionContainer {{MBMSAttachCommand-Extensions}}        OPTIONAL,
    ...
}

MBMSAttachCommand-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MBMS-Bearer-Service-List       CRITICALITY    ignore      TYPE MBMS-Bearer-Service-List PRESENCE  mandatory} |
    { ID id-UE-State                       CRITICALITY    ignore      TYPE   UE-State               PRESENCE optional},
    ...
}
```

```
MBMSAttachCommand-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- MBMS DETACH COMMAND
--
-- **************************************************************

MBMSDetachCommand ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container     {{MBMSDetachCommand-IEs}},
    protocolExtensions      ProtocolExtensionContainer {{MBMSDetachCommand-Extensions}}      OPTIONAL,
    ...
}

MBMSDetachCommand-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MBMS-Bearer-Service-List   CRITICALITY    ignore    TYPE MBMS-Bearer-Service-List PRESENCE mandatory} |
    { ID id-UE-State                   CRITICALITY    ignore    TYPE   UE-State                PRESENCE optional},
    ...
}

MBMSDetachCommand-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- DIRECT INFORMATION TRANSFER
--
-- **************************************************************

DirectInformationTransfer ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container       {{DirectInformationTransfer-IEs}},
    protocolExtensions      ProtocolExtensionContainer {{DirectInformationTransfer-Extensions}}                OPTIONAL,
    ...
}

DirectInformationTransfer-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RNC-ID                            CRITICALITY ignore  TYPE RNC-ID                        PRESENCE mandatory} |
    { ID id-ProvidedInformation               CRITICALITY ignore  TYPE ProvidedInformation           PRESENCE mandatory} ,
    ...
}

DirectInformationTransfer-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-RNC-ID                   CRITICALITY reject  EXTENSION Extended-RNC-ID   PRESENCE optional },
    ...
}


-- **************************************************************
--
-- PRIVATE MESSAGE
```

ETSI

```
--
-- ****************************************************************

PrivateMessage ::= SEQUENCE {
    privateIEs      PrivateIE-Container  {{PrivateMessage-IEs}},
    ...
}

PrivateMessage-IEs RNSAP-PRIVATE-IES ::= {
    ...
}

END
```

9.3.4   Information Element Definitions

```
-- ****************************************************************
--
-- Information Element Definitions
--
-- ****************************************************************

RNSAP-IEs {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS
    maxCellSIB11OrSIB12,
    maxNrOfFACHs,
    maxIBSEG,
    maxCellsMeas,
    maxNoOfDSCHs,
    maxNoOfUSCHs,
    maxNrOfDCHs,
    maxNrOfDL-Codes,
    maxNrOfDLTs,
    maxNrOfDLTsLCR,
    maxNrOfDPCHs,
    maxNrOfDPCHs768,
    maxNrOfDPCHsLCR,
    maxNrOfEDCH-HARQ-PO-QUANTSTEPs,
    maxNrOfEDCHHARQProcesses2msEDCH,
    maxNrOfBits-MACe-PDU-non-scheduled,
    maxNrOfEDPCCH-PO-QUANTSTEPs,
    maxNrOfRefETFCI-PO-QUANTSTEPs,
    maxNrOfRefETFCIs,
    maxNrOfErrors,
    maxNrOfFDDNeighboursPerRNC,
    maxNrOfMACcshSDU-Length,
```

ETSI

```
    maxNrOfNeighbouringRNCs,
    maxNrOfTDDNeighboursPerRNC,
    maxNrOfLCRTDDNeighboursPerRNC,
    maxNrOfTS,
    maxNrOfTsLCR,
    maxNrOfULTs,
    maxNrOfULTsLCR,
    maxNrOfGSMNeighboursPerRNC,
    maxRateMatching,
    maxNrOfPoints,
    maxNoOfRB,
    maxNrOfRLs,
    maxNrOfTFCs,
    maxNrOfTFs,
    maxCTFC,
    maxRNCinURA-1,
    maxNrOfSCCPCHs,
    maxNrOfSCCPCHs768,
    maxTGPS,
    maxTTI-Count,
    maxNoGPSTypes,
    maxNoSat,
    maxNrOfActiveMBMSServices,
    maxNrOfCells,
    maxNrOfSNAs,
    maxNrOfHARQProc,
    maxNrOfHSSCCHCodes,
    maxNrOfMACdFlows,
    maxNrOfMACdFlows-1,
    maxNrOfMACdPDUSize,
    maxNrOfEDCHMACdFlows,
    maxNrOfEDCHMACdFlows-1,
    maxNrOfMBMSServices,
    maxNrOfPDUIndexes,
    maxNrOfPDUIndexes-1,
    maxNrOfPrioQueues,
    maxNrOfPrioQueues-1,
    maxNrOfSatAlmanac-maxNoSat,
    maxNrOfGERANSI,
    maxNrofSigSeqERGHICH-1,
    maxNrOfUEs,
    maxNrOfAddFreq,
    maxNrOfCellsPerFreq,
    maxNoOfLogicalChannels,
    maxNrOfRefBetas,
    maxNrOfEAGCHCodes,
    maxNrOfHS-DSCHTBSs,
    maxNrOfHS-DSCHTBSs-HS-SCCHless,
    maxHS-PDSCHCodeNrComp-1,
    maxNrOfEHICHCodes,
    maxGANSSSat,
    maxNoGANSS,
    maxSgnType,
    maxNrOfBroadcastPLMNs,
```

```
        maxHSDPAFrequency,
        maxHSDPAFrequency-1,
        maxFrequencyinCell,
        maxFrequencyinCell-1,
        maxGANSSSatAlmanac,
        maxGANSSClockMod,
        maxNrOfEDCHRLs,



        id-Allowed-Rate-Information,
        id-AntennaColocationIndicator,
        id-BindingID,
        id-Cell-Capacity-Class-Value,
        id-CellCapabilityContainer-FDD,
        id-CellCapabilityContainer-TDD,
        id-CellCapabilityContainer-TDD-LCR,
        id-Continuous-Packet-Connectivity-HS-SCCH-Less-Information,
        id-Continuous-Packet-Connectivity-HS-SCCH-Less-Information-Response,
        id-CoverageIndicator,
        id-DPC-Mode-Change-SupportIndicator,
        id-E-DCH-Minimum-Set-E-TFCIValidityIndicator,
        id-E-RGCH-E-HICH-ChannelisationCodeValidityIndicator,
        id-Extended-Round-Trip-Time-Value,
        id-ExtendedPropagationDelay,
        id-Extended-SRNC-ID,
        id-Extended-RNC-ID,
        id-GERAN-Cell-Capability,
        id-GERAN-Classmark,
        id-Guaranteed-Rate-Information,
        id-HARQ-Preamble-Mode-Activation-Indicator,
        id-HCS-Prio,
        id-Inter-Frequency-Cell-Information,
        id-Load-Value,
        id-Load-Value-IncrDecrThres,
        id-Neighbouring-GSM-CellInformation,
        id-Neighbouring-UMTS-CellInformationItem,
        id-neighbouring-LCR-TDD-CellInformation,
        id-NRT-Load-Information-Value,
        id-NRT-Load-Information-Value-IncrDecrThres,
        id-OnModification,
        id-Received-Total-Wideband-Power-Value,
        id-Received-Total-Wideband-Power-Value-IncrDecrThres,
        id-RT-Load-Value,
        id-RT-Load-Value-IncrDecrThres,
        id-SFNSFNMeasurementThresholdInformation,
        id-SNA-Information,
        id-TrafficClass,
        id-Transmitted-Carrier-Power-Value,
        id-Transmitted-Carrier-Power-Value-IncrDecrThres,
        id-TUTRANGPSMeasurementThresholdInformation,
        id-UL-Timeslot-ISCP-Value,
        id-UL-Timeslot-ISCP-Value-IncrDecrThres,
        maxNrOfLevels,
```

ETSI

```
    maxNrOfMeasNCell,
    maxNrOfMeasNCell-1,
    id-MessageStructure,
    id-RestrictionStateIndicator,
    id-Rx-Timing-Deviation-Value-LCR,
    id-TransportLayerAddress,
    id-TypeOfError,
    id-Angle-Of-Arrival-Value-LCR,
    id-IPDL-TDD-ParametersLCR,
    id-DSCH-InitialWindowSize,
    id-Maximum-DL-Power-TimeslotLCR-InformationItem,
    id-MBMS-Bearer-Service-Full-Address,
    id-Minimum-DL-Power-TimeslotLCR-InformationItem,
    id-HS-SICH-Reception-Quality,
    id-HS-SICH-Reception-Quality-Measurement-Value,
    id-HS-PDSCH-Code-Change-Grant,
    id-HS-PDSCH-Code-Change-Indicator,
    id-ExtendedGSMCellIndividualOffset,
    id-Unidirectional-DCH-Indicator,
    id-RTLoadValue,
    id-NRTLoadInformationValue,
    id-Satellite-Almanac-Information-ExtItem,
    id-TnlQos,
    id-UpPTSInterferenceValue,
    id-NACC-Related-Data,
    id-HARQ-Preamble-Mode,
    id-User-Plane-Congestion-Fields-Inclusion,
    id-FrequencyBandIndicator,
    id-PLCCH-Information-UL-TimeslotLCR-Info,
    id-CellCapabilityContainer-TDD768,
    id-hSSCCH-TDD-Specific-InfoList-Response768,
    id-hSPDSCH-TDD-Specific-InfoList-Response768,
    id-Rx-Timing-Deviation-Value-768,
    id-UEMeasurementValueTransmittedPowerList768,
    id-UEMeasurementValueTimeslotISCPList768,
    id-E-DCH-PowerOffset-for-SchedulingInfo,
    id-Rx-Timing-Deviation-Value-ext,
    id-TrCH-SrcStatisticsDescr,
    id-eDCH-MACdFlow-Retransmission-Timer-LCR,
    id-MIMO-ActivationIndicator,
    id-MIMO-InformationResponse,
    id-MIMO-Mode-Indicator,
    id-MIMO-N-M-Ratio,
    id-SixteenQAM-UL-Operation-Indicator,
    id-E-AGCH-Table-Choice,
    id-E-TFCI-Boost-Information,
    id-E-DPDCH-PowerInterpolation,
    id-HSDSCH-MACdPDUSizeFormat,
    id-MaximumMACdPDU-SizeExtended,
    id-GANSS-Common-Data,
    id-GANSS-Information,
    id-GANSS-Generic-Data,
    id-TUTRANGANSSMeasurementThresholdInformation,
    id-TUTRANGANSSMeasurementValueInformation,
```

```
        id-HARQ-MemoryPartitioningInfoExtForMIMO,
        id-Ext-Reference-E-TFCI-PO,
        id-Ext-Max-Bits-MACe-PDU-non-scheduled,
        id-Multiple-PLMN-List,
        id-TransportBearerNotSetupIndicator,
        id-TransportBearerNotRequestedIndicator,
        id-UARFCNforNt,
        id-LCRTDD-uplink-Physical-Channel-Capability,
        id-number-Of-Supported-Carriers,
        id-HSSICH-SIRTarget,
        id-HSSICH-TPC-StepSize,
        id-tSN-Length,
        id-HS-SICH-ID-Extension,
        id-multipleFreq-HSPDSCH-InformationList-ResponseTDDLCR,
        id-multicarrier-number,
        id-UpPCH-InformationList-LCRTDD,
        id-UpPCH-InformationItem-LCRTDD,
        id-Max-UE-DTX-Cycle,
        id-Default-Serving-Grant-in-DTX-Cycle2,
        id-SixtyfourQAM-UsageAllowedIndicator,
        id-SixtyfourQAM-DL-UsageIndicator,
        id-UE-Capabilities-Info,
        id-Extended-E-DCH-LCRTDD-PhysicalLayerCategory,
        id-Continuous-Packet-Connectivity-HS-SCCH-Less-Deactivate-Indicator,
        id-E-PUCH-PowerControlGAP,
        id-MaximumNumber-Of-Retransmission-For-SchedulingInfo-LCRTDD,
        id-E-DCH-RetransmissionTimer-For-SchedulingInfo-LCRTDD,
        id-HSDSCH-TBSizeTableIndicator,
        id-E-DCH-DL-Control-Channel-Change-Information,
        id-E-DCH-DL-Control-Channel-Grant-Information,
        id-DGANSS-Corrections-Req,
        id-MACes-Maximum-Bitrate-LCR,
        id-MultiCarrier-HSDSCH-Physical-Layer-Category




FROM RNSAP-Constants

    Criticality,
    ProcedureID,
    ProtocolIE-ID,
    TransactionID,
    TriggeringMessage
FROM RNSAP-CommonDataTypes

    ProtocolIE-Single-Container{},
    ProtocolExtensionContainer{},
    RNSAP-PROTOCOL-IES,
    RNSAP-PROTOCOL-EXTENSION
FROM RNSAP-Containers;

-- A
```

```
AccessPointName      ::= OCTET STRING (SIZE (1..255))

AckNack-RepetitionFactor ::= INTEGER (1..4,...)
-- Step: 1

Ack-Power-Offset ::= INTEGER (0..8,...)
-- According to mapping in ref. [21] subclause 4.2.1

Active-MBMS-Bearer-Service-ListFDD  ::= SEQUENCE (SIZE (1..maxNrOfActiveMBMSServices)) OF MBMS-Bearer-ServiceItemFDD

Active-MBMS-Bearer-Service-ListFDD-PFL  ::= SEQUENCE (SIZE (1..maxNrOfActiveMBMSServices)) OF MBMS-Bearer-ServiceItemFDD-PFL

Active-MBMS-Bearer-Service-ListTDD  ::= SEQUENCE (SIZE (1..maxNrOfActiveMBMSServices)) OF MBMS-Bearer-ServiceItemTDD

Active-MBMS-Bearer-Service-ListTDD-PFL  ::= SEQUENCE (SIZE (1..maxNrOfActiveMBMSServices)) OF MBMS-Bearer-ServiceItemTDD-PFL

Active-Pattern-Sequence-Information ::= SEQUENCE {
    cMConfigurationChangeCFN        CFN,
    transmission-Gap-Pattern-Sequence-Status   Transmission-Gap-Pattern-Sequence-Status-List   OPTIONAL,
    iE-Extensions        ProtocolExtensionContainer { {Active-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
    ...
}

Active-Pattern-Sequence-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

AdditionalPreferredFrequency    ::= SEQUENCE (SIZE (1..maxNrOfAddFreq)) OF AdditionalPreferredFrequencyItem

AdditionalPreferredFrequencyItem ::= SEQUENCE {
    dL-UARFCN                     UARFCN,
    correspondingCells            CorrespondingCells ,
    iE-Extensions                 ProtocolExtensionContainer { { AdditionalPreferredFrequencyItem-ExtIEs} } OPTIONAL,
    ...
}


AdditionalPreferredFrequencyItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

AdjustmentPeriod             ::= INTEGER(1..256)
-- Unit Frame

AffectedUEInformationForMBMS    ::= SEQUENCE (SIZE (1..maxNrOfUEs)) OF S-RNTI

AllocationRetentionPriority ::= SEQUENCE {
    priorityLevel            PriorityLevel,
    pre-emptionCapability        Pre-emptionCapability,
    pre-emptionVulnerability     Pre-emptionVulnerability,
    iE-Extensions            ProtocolExtensionContainer { {AllocationRetentionPriority-ExtIEs} } OPTIONAL,
    ...
}
```

```
AllocationRetentionPriority-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Allowed-Rate-Information    ::= SEQUENCE {
    allowed-UL-Rate        Allowed-Rate OPTIONAL,
    allowed-DL-Rate        Allowed-Rate OPTIONAL,
    iE-Extensions          ProtocolExtensionContainer { {Allowed-Rate-Information-ExtIEs} } OPTIONAL,
    ...
}

Allowed-Rate-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Allowed-Rate              ::= INTEGER (1..maxNrOfTFs)
-- "1": TFI 0, "2": TFI 1, "3": TFI 2, ...

AllowedQueuingTime        ::= INTEGER (1..60)
-- seconds

AlphaValue                ::= INTEGER (0..8)
-- Actual value = Alpha / 8

AlternativeFormatReportingIndicator ::= ENUMERATED {
    alternativeFormatAllowed,...
}

Angle-Of-Arrival-Value-LCR ::= SEQUENCE {
    aOA-LCR                AOA-LCR,
    aOA-LCR-Accuracy-Class  AOA-LCR-Accuracy-Class,
    iE-Extensions          ProtocolExtensionContainer { {Angle-Of-Arrival-Value-LCR-ExtIEs} } OPTIONAL,
...
}

Angle-Of-Arrival-Value-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

AOA-LCR ::= INTEGER (0..719)
-- Angle Of Arrival for 1.28Mcps TDD

AOA-LCR-Accuracy-Class  ::= ENUMERATED {a,b,c,d,e,f,g,h,...}

AntennaColocationIndicator ::= ENUMERATED {
    co-located,
    ...
}

-- B

BadSatellites ::= SEQUENCE {
    badSatelliteInformation    SEQUENCE (SIZE (1..maxNoSat)) OF
        SEQUENCE {
```

```
            badSAT-ID                       SAT-ID,
            iE-Extensions                   ProtocolExtensionContainer { { BadSatelliteInformation-ExtIEs} }    OPTIONAL,
            ...
        },
    iE-Extensions                   ProtocolExtensionContainer { { BadSatellites-ExtIEs} }       OPTIONAL,
    ...
}

BadSatelliteInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

BadSatellites-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Band-Indicator ::= ENUMERATED {
    dcs1800Band,
    pcs1900Band,
    ...
}

BCC ::= BIT STRING (SIZE (3))


BCCH-ARFCN ::= INTEGER (0..1023)


BetaCD ::= INTEGER (0..15)


BindingID               ::= OCTET STRING (SIZE (1..4,...))
-- If the Binding ID includes an UDP port, the UDP port is included in octet 1 and 2.


BLER                    ::= INTEGER (-63..0)
-- Step 0.1 (Range -6.3..0). It is the Log10 of the BLER

SCTD-Indicator  ::= ENUMERATED {
    active,
    inactive
}

BSIC ::= SEQUENCE {
    nCC         NCC,
    bCC         BCC
}

BundlingModeIndicator ::= ENUMERATED {
    bundling,
    no-bundling
}

BurstModeParameters ::= SEQUENCE {
    burstStart      INTEGER (0..15),
    burstLength     INTEGER (10..25),
    burstFreq       INTEGER (1..16),
    iE-Extensions               ProtocolExtensionContainer { { BurstModeParameters-ExtIEs} }      OPTIONAL,
```

```
    ...
}

BurstModeParameters-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- C

Cause ::= CHOICE {
    radioNetwork        CauseRadioNetwork,
    transport           CauseTransport,
    protocol            CauseProtocol,
    misc                CauseMisc,
    ...
}

CauseMisc ::= ENUMERATED {
    control-processing-overload,
    hardware-failure,
    om-intervention,
    not-enough-user-plane-processing-resources,
    unspecified,
    ...
}

CauseProtocol ::= ENUMERATED {
    transfer-syntax-error,
    abstract-syntax-error-reject,
    abstract-syntax-error-ignore-and-notify,
    message-not-compatible-with-receiver-state,
    semantic-error,
    unspecified,
    abstract-syntax-error-falsely-constructed-message,
    ...
}

CauseRadioNetwork ::= ENUMERATED {
    unknown-C-ID,
    cell-not-available,
    power-level-not-supported,
    ul-scrambling-code-already-in-use,
    dl-radio-resources-not-available,
    ul-radio-resources-not-available,
    measurement-not-supported-for-the-object,
    combining-resources-not-available,
    combining-not-supported,
    reconfiguration-not-allowed,
    requested-configuration-not-supported,
    synchronisation-failure,
    requested-tx-diversity-mode-not-supported,
    measurement-temporaily-not-available,
    unspecified,
    invalid-CM-settings,
```

```
        reconfiguration-CFN-not-elapsed,
        number-of-DL-codes-not-supported,
        dedicated-transport-channel-type-not-supported,
        dl-shared-channel-type-not-supported,
        ul-shared-channel-type-not-supported,
        common-transport-channel-type-not-supported,
        ul-spreading-factor-not-supported,
        dl-spreading-factor-not-supported,
        cm-not-supported,
        transaction-not-supported-by-destination-node-b,
        rl-already-activated-or-alocated,
        ...,
        number-of-UL-codes-not-supported,
        cell-reserved-for-operator-use,
        dpc-mode-change-not-supported,
        information-temporarily-not-available,
        information-provision-not-supported-for-the-object,
        power-balancing-status-not-compatible,
        delayed-activation-not-supported,
        rl-timing-adjustment-not-supported,
        unknown-RNTI,
        measurement-repetition-rate-not-compatible,
        ue-not-capable-of-support,
        f-dpch-not-supported,
        e-dch-not-supported,
        continuous-packet-connectivity-dtx-drx-operation-not-supported,
        continuous-packet-connectivity-hs-scch-less-operation-not-supported,
        mimo-not-supported,
        e-dch-tti2ms-not-supported,
        continuous-packet-connectivity-DTX-DRX-operation-not-available,
        continuous-packet-connectivity-UE-DTX-Cycle-not-available,
        mimo-not-available,
        sixteenQAM-UL-not-Supported,
        hSDSCH-MACdPDU-SizeFormatNotSupported,
        f-dpch-slot-format-operation-not-supported,
        e-DPCCH-Power-Boosting-not-supported

}

CauseTransport ::= ENUMERATED {
        transport-resource-unavailable,
        unspecified,
        ...
}

CellCapabilityContainer-FDD ::= BIT STRING (SIZE (32))
-- First bit: Flexible Hard Split Support Indicator
-- Second bit: Delayed Activation Support Indicator
-- Third bit: HS-DSCH Support Indicator
-- Fourth bit: DSCH Support Indicator
-- Fifth bit: F-DPCH Support Indicator
-- sixth bit: E-DCH Support Indicator
-- Seventh bit: E-DCH TTI2ms Support Indicator
-- Eighth bit: E-DCH 2sf2and2sf4 and all inferior SFs Support Indicator
```

```
-- Ninth bit: E-DCH 2sf2 and all inferior SFs Support Indicator
-- Tenth bit: E-DCH 2sf4 and all inferior SFs Support Indicator
-- Eleventh bit: E-DCH sf4 and all inferior SFs Support Indicator
-- Twelveth bit: E-DCH sf8 and all inferior SFs Support Indicator
-- Thirteenth bit: E-DCH HARQ IR Combining Support Indicator
-- Fourteenth bit: E-DCH HARQ Chase Combining Support Indicator
-- Fifteenth bit: Continuous Packet Connectivity DTX-DRX Support Indicator
-- Sixteenth bit: Continuous Packet Connectivity HS-SCCH less Support Indicator
-- Seventeenth bit: MIMO Support Indicator
-- Eighteenth bit: SixteenQAM UL Support Indicator
-- Nineteenth bit: Flexible MAC-d PDU Size Support Indicator
-- Twentieth bit: F-DPCH Slot Format Support Indicator
-- Twentyfirst bit: SixtyfourQAM DL Support Indicator
-- Twentysecond bit: Reserved
-- Twentythird bit: E-DPCCH Power Boosting Support Indicator
-- Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.

CellCapabilityContainer-TDD ::= BIT STRING (SIZE (32))
-- First bit: Delayed Activation Support Indicator
-- Second bit: HS-DSCH Support Indicator
-- Third bit: DSCH Support Indicator
-- The fourth bit: Flexible MAC-d PDU Size Support Indicator
-- Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.

CellCapabilityContainer-TDD-LCR ::= BIT STRING (SIZE (32))
-- First bit: Delayed Activation Support Indicator
-- Second bit: HS-DSCH Support Indicator
-- Third bit: DSCH Support Indicator
-- The fourth bit: Flexible MAC-d PDU Size Support Indicator
-- Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.

CellCapabilityContainer-TDD768 ::= BIT STRING (SIZE (32))
-- First bit: Delayed Activation Support Indicator
-- Second bit: HS-DSCH Support Indicator
-- Third bit: DSCH Support Indicator
-- The fourth bit: Flexible MAC-d PDU Size Support Indicator
-- Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.

C-ID                  ::= INTEGER (0..65535)

CCTrCH-ID             ::= INTEGER (0..15)

Cell-Capacity-Class-Value ::= SEQUENCE {
        uplinkCellCapacityClassValue        INTEGER(1..100,...),
        downlinkCellCapacityClassValue      INTEGER(1..100,...)
}


CellIndividualOffset    ::= INTEGER (-20..20)

CellParameterID            ::= INTEGER (0..127,...)

CellPortionID   ::= INTEGER (0..63,...)
```

```
CFN                       ::= INTEGER (0..255)


CGI ::= SEQUENCE {
    lAI             SEQUENCE {
        pLMN-Identity   PLMN-Identity,
        lAC             LAC,
        iE-Extensions           ProtocolExtensionContainer { {LAI-ExtIEs} } OPTIONAL,
        ...
    },
    cI              CI,
    iE-Extensions           ProtocolExtensionContainer { {CGI-ExtIEs} } OPTIONAL
}

LAI-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CGI-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

ChannelCodingType ::= ENUMERATED {
    no-codingTDD,
    convolutional-coding,
    turbo-coding,
    ...
}

ChipOffset               ::= INTEGER (0..38399)

CI                       ::= OCTET STRING (SIZE (2))

ClosedLoopMode1-SupportIndicator    ::= ENUMERATED {
    closedLoop-Mode1-Supported,
    closedLoop-Mode1-not-Supported
}


Closedlooptimingadjustmentmode   ::= ENUMERATED {
    adj-1-slot,
    adj-2-slot,
    ...
}

CodingRate ::= ENUMERATED {
    half,
    third,
    ...
}

CommonMeasurementAccuracy ::= CHOICE {
    tUTRANGPSMeasurementAccuracyClass       TUTRANGPSAccuracyClass,
    ...,
    tUTRANGANSSMeasurementAccuracyClass     TUTRANGANSSAccuracyClass
```

ETSI

```
}

CommonMeasurementType ::= ENUMERATED {
    uTRAN-GPS-timing-of-cell-frames-for-UE-Positioning,
    sFN-SFN-observerd-time-difference,
    load,
    transmitted-carrier-power,
    received-total-wide-band-power,
    uplink-timeslot-iscp,
    ...,
    rT-load,
    nRT-load-Information,
    upPTSInterference,
    uTRAN-GANSS-timing-of-cell-frames-for-UE-Positioning
}
-- For measurements on the Iur-g interface, only load, RT Load and NRT Load information are requested.

CommonMeasurementValue ::= CHOICE {
    tUTRANGPSMeasurementValueInformation     TUTRANGPSMeasurementValueInformation,
    sFNSFNMeasurementValueInformation        SFNSFNMeasurementValueInformation,
    loadValue                                LoadValue,
    transmittedCarrierPowerValue             INTEGER(0..100),
    receivedTotalWideBandPowerValue          INTEGER(0..621),
    uplinkTimeslotISCPValue                  UL-TimeslotISCP,
    ...,
    extension-CommonMeasurementValue         Extension-CommonMeasurementValue
}

Extension-CommonMeasurementValue    ::= ProtocolIE-Single-Container {{ Extension-CommonMeasurementValueIE }}

Extension-CommonMeasurementValueIE RNSAP-PROTOCOL-IES ::= {
    { ID id-RTLoadValue                              CRITICALITY ignore  TYPE RTLoadValue                             PRESENCE mandatory }|
    { ID id-NRTLoadInformationValue                  CRITICALITY ignore  TYPE NRTLoadInformationValue                 PRESENCE mandatory }|
    { ID id-UpPTSInterferenceValue                   CRITICALITY reject  TYPE UpPTSInterferenceValue                  PRESENCE mandatory }|
    { ID id-TUTRANGANSSMeasurementValueInformation   CRITICALITY reject  TYPE TUTRANGANSSMeasurementValueInformation  PRESENCE mandatory }
}

-- For measurements on the Iur-g interface, only load, RT Load and NRT Load values are reported.

CommonMeasurementValueInformation ::= CHOICE {
    measurementAvailable        CommonMeasurementAvailable,
    measurementnotAvailable     NULL
}

CommonMeasurementAvailable::= SEQUENCE {
    commonMeasurementValue      CommonMeasurementValue,
    iE-Extensions               ProtocolExtensionContainer { { CommonMeasurementAvailableItem-ExtIEs} }     OPTIONAL,
    ...
}

CommonMeasurementAvailableItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

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```
CongestionCause ::= ENUMERATED {
    uTRAN-dynamic-resources,
    uTRAN-semistatic-resources,
    ...
}

CommonTransportChannelResourcesInitialisationNotRequired ::= ENUMERATED {
    not-Required
}


Continuous-Packet-Connectivity-DTX-DRX-Information ::= SEQUENCE {
    uE-DTX-DRX-Offset                       UE-DTX-DRX-Offset,
    enabling-Delay                          Enabling-Delay,
    dTX-Information                         DTX-Information,
    dRX-Information                         DRX-Information                             OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { Continuous-Packet-Connectivity-DTX-DRX-Information-ExtIEs } }
    OPTIONAL,
    ...
}

Continuous-Packet-Connectivity-DTX-DRX-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Continuous-Packet-Connectivity-DTX-DRX-Information-to-Modify ::= SEQUENCE {
    uE-DTX-DRX-Offset                       UE-DTX-DRX-Offset                       OPTIONAL,
    enabling-Delay                          Enabling-Delay                          OPTIONAL,
    dTX-Information-to-Modify                DTX-Information-to-Modify               OPTIONAL,
    dRX-Information-to-Modify                DRX-Information-to-Modify               OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { Continuous-Packet-Connectivity-DTX-DRX-Information-to-Modify-ExtIEs
} }         OPTIONAL,
    ...
}

Continuous-Packet-Connectivity-DTX-DRX-Information-to-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Continuous-Packet-Connectivity-HS-SCCH-Less-Information ::= SEQUENCE (SIZE (1..maxNrOfHS-DSCHTBSs-HS-SCCHless)) OF Continuous-Packet-Connectivity-
HS-SCCH-Less-InformationItem

Continuous-Packet-Connectivity-HS-SCCH-Less-InformationItem ::= SEQUENCE {
    transport-Block-Size-Index              Transport-Block-Size-Index,
    hSPDSCH-Second-Code-Support             HSPDSCH-Second-Code-Support,
    iE-Extensions                           ProtocolExtensionContainer { { Continuous-Packet-Connectivity-HS-SCCH-Less-InformationItem-ExtIEs } }
            OPTIONAL,
    ...
}

Continuous-Packet-Connectivity-HS-SCCH-Less-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
Continuous-Packet-Connectivity-HS-SCCH-Less-Information-Response ::= SEQUENCE {
    hSPDSCH-First-Code-Index               HSPDSCH-First-Code-Index,
    hSPDSCH-Second-Code-Index              HSPDSCH-Second-Code-Index                OPTIONAL,
    iE-Extensions                          ProtocolExtensionContainer { { Continuous-Packet-Connectivity-HS-SCCH-Less-Information-Response-ExtIEs
} }        OPTIONAL,
    ...
}

Continuous-Packet-Connectivity-HS-SCCH-Less-Information-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CorrespondingCells  ::= SEQUENCE (SIZE (1..maxNrOfCellsPerFreq)) OF C-ID


CoverageIndicator ::= ENUMERATED {
    overlap,
    covers,
    containedIn,
    ...
}



CPC-Information ::= SEQUENCE {
    continuous-Packet-Connectivity-DTX-DRX-Information                 Continuous-Packet-Connectivity-DTX-DRX-Information      OPTIONAL,
    continuous-Packet-Connectivity-DTX-DRX-Information-to-Modify       Continuous-Packet-Connectivity-DTX-DRX-Information-to-Modify
    OPTIONAL,
    continuous-Packet-Connectivity-HS-SCCH-Less-Information            Continuous-Packet-Connectivity-HS-SCCH-Less-Information
    OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { { CPC-Information-ExtIEs} } OPTIONAL,
    ...
}

CPC-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-Continuous-Packet-Connectivity-HS-SCCH-Less-Deactivate-Indicator        CRITICALITY reject        EXTENSION Continuous-Packet-
Connectivity-HS-SCCH-less-Deactivate-Indicator          PRESENCE optional},
    ...
}

Continuous-Packet-Connectivity-HS-SCCH-less-Deactivate-Indicator ::= NULL

CRC-Size              ::= ENUMERATED {
    v0,
    v8,
    v12,
    v16,
    v24,
    ...
}

CriticalityDiagnostics ::= SEQUENCE {
    procedureID              ProcedureID        OPTIONAL,
    triggeringMessage        TriggeringMessage     OPTIONAL,
```

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```
      procedureCriticality     Criticality          OPTIONAL,
      transactionID            TransactionID        OPTIONAL,
      iEsCriticalityDiagnostics    CriticalityDiagnostics-IE-List  OPTIONAL,
      iE-Extensions            ProtocolExtensionContainer { {CriticalityDiagnostics-ExtIEs} } OPTIONAL,
      ...
}

CriticalityDiagnostics-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CriticalityDiagnostics-IE-List ::= SEQUENCE (SIZE (1..maxNrOfErrors)) OF
      SEQUENCE {
          iECriticality        Criticality,
          iE-ID                ProtocolIE-ID,
          repetitionNumber     RepetitionNumber0     OPTIONAL,
          iE-Extensions        ProtocolExtensionContainer { {CriticalityDiagnostics-IE-List-ExtIEs} } OPTIONAL,
          ...
      }

CriticalityDiagnostics-IE-List-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{   ID id-MessageStructure    CRITICALITY ignore    EXTENSION MessageStructure    PRESENCE optional }|
{   ID id-TypeOfError         CRITICALITY ignore    EXTENSION TypeOfError         PRESENCE mandatory },
    ...
}

MessageStructure ::= SEQUENCE (SIZE (1..maxNrOfLevels)) OF
      SEQUENCE {
          iE-ID                ProtocolIE-ID,
          repetitionNumber     RepetitionNumber1     OPTIONAL,
          iE-Extensions        ProtocolExtensionContainer { {MessageStructure-ExtIEs} } OPTIONAL,
          ...
      }


MessageStructure-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CN-CS-DomainIdentifier ::= SEQUENCE {
    pLMN-Identity      PLMN-Identity,
    lAC                LAC,
    iE-Extensions      ProtocolExtensionContainer { {CN-CS-DomainIdentifier-ExtIEs} } OPTIONAL
}

CN-CS-DomainIdentifier-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CN-PS-DomainIdentifier ::= SEQUENCE {
    pLMN-Identity      PLMN-Identity,
    lAC                LAC,
    rAC                RAC,
    iE-Extensions      ProtocolExtensionContainer { {CN-PS-DomainIdentifier-ExtIEs} } OPTIONAL
```

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```
}

CN-PS-DomainIdentifier-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CNDomainType     ::= ENUMERATED {
    cs-domain,
    ps-domain,
    dont-care,
    ...
}
-- See in [16]

CQI-DTX-Timer ::= ENUMERATED {v0, v1, v2, v4, v8, v16, v32, v64, v128, v256, v512, infinity}
    -- Unit subframe

ControlGAP ::= INTEGER (1..255)

CQI-Feedback-Cycle ::= ENUMERATED {v0, v2, v4, v8, v10, v20, v40, v80, v160,..., v16, v32, v64}

CQI-Power-Offset ::= INTEGER (0..8,...)
-- According to mapping in ref. [21] subclause 4.2.1

CQI-RepetitionFactor ::= INTEGER (1..4,...)
-- Step: 1

C-RNTI                  ::= INTEGER (0..65535)

CodeRate ::= INTEGER (0..63)

CodeRate-short ::= INTEGER (0..10)

-- D

DATA-ID ::= INTEGER (0..3)


DCH-FDD-Information     ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-FDD-InformationItem

DCH-FDD-InformationItem ::= SEQUENCE {
    payloadCRC-PresenceIndicator      PayloadCRC-PresenceIndicator,
    ul-FP-Mode                        UL-FP-Mode,
    toAWS                             ToAWS,
    toAWE                             ToAWE,
    dCH-SpecificInformationList       DCH-Specific-FDD-InformationList,
    iE-Extensions                     ProtocolExtensionContainer { {DCH-FDD-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

DCH-FDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TnlQos        CRITICALITY    ignore    EXTENSION   TnlQos    PRESENCE    optional },
    ...
}
```

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```
DCH-Specific-FDD-InformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-Specific-FDD-Item

DCH-Specific-FDD-Item ::=    SEQUENCE {
    dCH-ID                          DCH-ID,
    trCH-SrcStatisticsDescr         TrCH-SrcStatisticsDescr,
    ul-transportFormatSet           TransportFormatSet,
    dl-transportFormatSet           TransportFormatSet,
    ul-BLER                         BLER,
    dl-BLER                         BLER,
    allocationRetentionPriority     AllocationRetentionPriority,
    frameHandlingPriority           FrameHandlingPriority,
    qE-Selector                     QE-Selector,
    dRACControl                     DRACControl,
    iE-Extensions                   ProtocolExtensionContainer { {DCH-FDD-SpecificItem-ExtIEs} } OPTIONAL,
    ...
}

DCH-FDD-SpecificItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Guaranteed-Rate-Information     CRITICALITY ignore  EXTENSION Guaranteed-Rate-Information     PRESENCE optional }|
    { ID id-TrafficClass                    CRITICALITY ignore  EXTENSION TrafficClass   PRESENCE mandatory}|
    { ID id-Unidirectional-DCH-Indicator    CRITICALITY reject  EXTENSION Unidirectional-DCH-Indicator     PRESENCE optional },
    ...
}

DCH-Indicator-For-E-DCH-HSDPA-Operation ::= ENUMERATED {
    dch-not-present
}

DCH-ID                  ::= INTEGER (0..255)

DCH-InformationResponse ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-InformationResponseItem

DCH-InformationResponseItem ::= SEQUENCE {
    dCH-ID                  DCH-ID,
    bindingID               BindingID               OPTIONAL,
    transportLayerAddress   TransportLayerAddress   OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { {DCH-InformationResponseItem-ExtIEs} } OPTIONAL,
    ...
}

DCH-InformationResponseItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Allowed-Rate-Information            CRITICALITY ignore  EXTENSION Allowed-Rate-Information            PRESENCE optional }|
    { ID id-TransportBearerNotSetupIndicator    CRITICALITY ignore  EXTENSION TransportBearerNotSetupIndicator    PRESENCE optional }, -- FDD only
    ...
}

DCH-TDD-Information     ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-TDD-InformationItem

DCH-TDD-InformationItem ::= SEQUENCE {
    payloadCRC-PresenceIndicator        PayloadCRC-PresenceIndicator,
    ul-FP-Mode                          UL-FP-Mode,
    toAWS                               ToAWS,
    toAWE                               ToAWE,
```

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```
    dCH-SpecificInformationList          DCH-Specific-TDD-InformationList,
    iE-Extensions                        ProtocolExtensionContainer { {DCH-TDD-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

DCH-TDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TnlQos                       CRITICALITY    ignore    EXTENSION   TnlQos      PRESENCE   optional },
    ...
}

DCH-Specific-TDD-InformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-Specific-TDD-Item

DCH-Specific-TDD-Item ::=   SEQUENCE {
    dCH-ID                          DCH-ID,
    ul-cCTrCH-ID                    CCTrCH-ID, -- UL CCTrCH in which the DCH is mapped
    dl-cCTrCH-ID                    CCTrCH-ID, -- DL CCTrCH in which the DCH is mapped
    trCH-SrcStatisticsDescr         TrCH-SrcStatisticsDescr,
    ul-transportFormatSet           TransportFormatSet,
    dl-transportFormatSet           TransportFormatSet,
    ul-BLER                         BLER,
    dl-BLER                         BLER,
    allocationRetentionPriority     AllocationRetentionPriority,
    frameHandlingPriority           FrameHandlingPriority,
    qE-Selector                     QE-Selector        OPTIONAL,
    -- This IE shall be present if DCH is part of set of Co-ordinated DCHs
    iE-Extensions                   ProtocolExtensionContainer { {DCH-Specific-TDD-Item-ExtIEs} } OPTIONAL,
    ...
}

DCH-Specific-TDD-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Guaranteed-Rate-Information     CRITICALITY ignore  EXTENSION Guaranteed-Rate-Information     PRESENCE optional }|
    { ID id-TrafficClass                    CRITICALITY ignore  EXTENSION TrafficClass   PRESENCE mandatory}|
    { ID id-Unidirectional-DCH-Indicator    CRITICALITY reject  EXTENSION Unidirectional-DCH-Indicator     PRESENCE optional },
    ...
}

DedicatedMeasurementType ::= ENUMERATED {
    sir,
    sir-error,
    transmitted-code-power,
    rSCP,
    rx-timing-deviation,
    round-trip-time,
    ...,
    rx-timing-deviation-LCR,
    angle-Of-Arrival-LCR,
    hs-sich-quality,
    rx-timing-deviation-768,
    rx-timing-deviation-ext

}

DedicatedMeasurementValue ::= CHOICE {
    sIR-Value         SIR-Value,
```

```
    sIR-ErrorValue           SIR-Error-Value,
    transmittedCodePowerValue  Transmitted-Code-Power-Value,
    rSCP              RSCP-Value, -- TDD only
    rxTimingDeviationValue  Rx-Timing-Deviation-Value,  -- 3.84Mcps TDD only
    roundTripTime       Round-Trip-Time-Value,  -- FDD only
    ...,
    extension-DedicatedMeasurementValue     Extension-DedicatedMeasurementValue
}

Extension-DedicatedMeasurementValue ::= ProtocolIE-Single-Container {{ Extension-DedicatedMeasurementValueIE }}

Extension-DedicatedMeasurementValueIE RNSAP-PROTOCOL-IES ::= {
    { ID id-Rx-Timing-Deviation-Value-LCR   CRITICALITY reject  TYPE Rx-Timing-Deviation-Value-LCR   PRESENCE mandatory }|
    { ID id-Angle-Of-Arrival-Value-LCR      CRITICALITY reject  TYPE Angle-Of-Arrival-Value-LCR PRESENCE mandatory }|
    { ID id-HS-SICH-Reception-Quality       CRITICALITY reject  TYPE HS-SICH-Reception-Quality-Value PRESENCE mandatory }|
    { ID id-Rx-Timing-Deviation-Value-768   CRITICALITY reject  TYPE Rx-Timing-Deviation-Value-768   PRESENCE mandatory }|
    { ID id-Rx-Timing-Deviation-Value-ext   CRITICALITY reject  TYPE Rx-Timing-Deviation-Value-ext   PRESENCE mandatory }|
    { ID id-Extended-Round-Trip-Time-Value       CRITICALITY reject  TYPE Extended-Round-Trip-Time-Value PRESENCE mandatory },
    ...
}

DedicatedMeasurementValueInformation ::= CHOICE {
    measurementAvailable        DedicatedMeasurementAvailable,
    measurementnotAvailable     DedicatedMeasurementnotAvailable
}

DedicatedMeasurementAvailable::= SEQUENCE {
    dedicatedmeasurementValue        DedicatedMeasurementValue,
    cFN                              CFN                         OPTIONAL,
    ie-Extensions                    ProtocolExtensionContainer { { DedicatedMeasurementAvailableItem-ExtIEs} }     OPTIONAL,
    ...
}

DedicatedMeasurementAvailableItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DedicatedMeasurementnotAvailable ::= NULL

DelayedActivation ::= CHOICE {
    cfn                 CFN,
    separate-indication     NULL
}

DelayedActivationUpdate ::= CHOICE {
    activate       Activate-Info,
    deactivate     Deactivate-Info
}

Activate-Info ::= SEQUENCE {
    activation-type       Execution-Type,
    initial-dl-tx-power   DL-Power,
    firstRLS-Indicator    FirstRLS-Indicator                                           OPTIONAL, --FDD Only
    propagation-delay     PropagationDelay                                             OPTIONAL, --FDD Only
```

```
    iE-Extensions            ProtocolExtensionContainer { { Activate-Info-ExtIEs} }       OPTIONAL,
    ...
}


Activate-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-ExtendedPropagationDelay   CRITICALITY ignore  EXTENSION ExtendedPropagationDelay   PRESENCE optional },
    ...
}


Deactivate-Info ::= SEQUENCE {
    deactivation-type       Execution-Type,
    iE-Extensions            ProtocolExtensionContainer { { Deactivate-Info-ExtIEs} }       OPTIONAL,
    ...
}


Deactivate-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {

    ...
}

Execution-Type ::= CHOICE {
    synchronised    CFN,
    unsynchronised  NULL
}

DeltaSIR              ::= INTEGER (0..30)
-- Step 0.1 dB, Range 0..3 dB.

DGANSSCorrections ::= SEQUENCE {
    dGANSS-ReferenceTime             INTEGER(0..119),
    dGANSS-Information               SEQUENCE (SIZE (1..maxSgnType)) OF SEQUENCE {
        gANSS-SignalId               GANSS-Signal-ID                                        OPTIONAL,
        gANSS-StatusHealth           GANSS-StatusHealth,
-- The following IE shall be present if the StatusHealth IE value is not equal to "no data" or "invalid data"
        dGANSS-SignalInformation         SEQUENCE (SIZE (1..maxGANSSSat)) OF SEQUENCE {
            satId                        INTEGER(0..63),
            gANSS-iod                    BIT STRING (SIZE (10)),
            udre                         UDRE,
            ganss-prc                    INTEGER(-2047..2047),
            ganss-rrc                    INTEGER(-127..127),
            ie-Extensions                ProtocolExtensionContainer { { DGANSS-SignalInformationItem-ExtIEs } } OPTIONAL,
            ...
        }                                                                                      OPTIONAL,
        ie-Extensions                ProtocolExtensionContainer { { DGANSS-InformationItem-ExtIEs } }         OPTIONAL,
        ...
    },
    ie-Extensions                ProtocolExtensionContainer { { DGANSSCorrections-ExtIEs } }                 OPTIONAL,
    ...
}
```

```
DGANSSCorrections-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DGANSS-Corrections-Req ::= SEQUENCE {
    dGANSS-Signal-ID                    BIT STRING (SIZE (8)),
    ie-Extensions                       ProtocolExtensionContainer { { DGANSS-Corrections-Req-ExtIEs } }          OPTIONAL,
    ...
}


DGANSS-Corrections-Req-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DGANSS-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


DGANSS-SignalInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DGANSSThreshold ::= SEQUENCE {
    pRCDeviation      PRCDeviation,
    ...
}

DGPSCorrections ::= SEQUENCE {
    gPSTOW                               GPSTOW,
    gPS-Status-Health                    GPS-Status-Health,
    satellite-DGPSCorrections-Information  SEQUENCE (SIZE (1..maxNoSat)) OF
        SEQUENCE {
            sAT-ID                       SAT-ID,
            iode-dgps                    BIT STRING (SIZE (8)),
            uDRE                         UDRE,
            pRC                          PRC,
            range-Correction-Rate        Range-Correction-Rate,
            iE-Extensions                ProtocolExtensionContainer { { Satellite-DGPSCorrections-Information-ExtIEs} }   OPTIONAL,
            ...
        },
    iE-Extensions                    ProtocolExtensionContainer { { DGPSCorrections-ExtIEs} }    OPTIONAL,
    ...
}

Satellite-DGPSCorrections-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

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```
}

DGPSCorrections-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DGPSThreshold ::= SEQUENCE {
    pRCDeviation        PRCDeviation,
    iE-Extensions       ProtocolExtensionContainer { { DGPSThreshold-ExtIEs} }      OPTIONAL,
    ...
}

DGPSThreshold-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DiscardTimer ::= ENUMERATED
{v20,v40,v60,v80,v100,v120,v140,v160,v180,v200,v250,v300,v400,v500,v750,v1000,v1250,v1500,v1750,v2000,v2500,v3000,v3500,v4000,v4500,v5000,v7500,
 ...
}

DiversityControlField        ::= ENUMERATED {
    may,
    must,
    must-not
}

DiversityMode                ::= ENUMERATED {
    none,
    sTTD,
    closedLoopMode1,
    not-used-closedLoopMode2,
    ...
}

DL-DPCH-SlotFormat           ::= INTEGER (0..16,...)

DL-DPCH-TimingAdjustment ::= ENUMERATED {
    timing-advance,
    timing-delay
}

DL-Power                  ::= INTEGER (-350..150)
-- Value = DL-Power / 10
-- Unit dB, Range -35dB .. +15dB, Step 0.1dB

DL-PowerBalancing-Information ::= SEQUENCE {
    powerAdjustmentType               PowerAdjustmentType,
    dLReferencePower                  DL-Power         OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common'
    dLReferencePowerList         DL-ReferencePowerInformationList        OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Individual'
```

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```
    maxAdjustmentStep                      MaxAdjustmentStep        OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    adjustmentPeriod                       AdjustmentPeriod         OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    adjustmentRatio                        ScaledAdjustmentRatio    OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    iE-Extensions                          ProtocolExtensionContainer { { DL-PowerBalancing-Information-ExtIEs } } OPTIONAL,
    ...
}

DL-PowerBalancing-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-ReferencePowerInformationList          ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF DL-ReferencePowerInformationItem

DL-ReferencePowerInformationItem ::= SEQUENCE {
    rL-ID                       RL-ID,
    dl-Reference-Power          DL-Power,
    iE-Extensions               ProtocolExtensionContainer { {DL-ReferencePowerInformationItem-ExtIEs} } OPTIONAL,
    ...
}

DL-ReferencePowerInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-PowerBalancing-ActivationIndicator   ::= ENUMERATED {
    dL-PowerBalancing-Activated
}

DL-PowerBalancing-UpdatedIndicator  ::= ENUMERATED {
    dL-PowerBalancing-Updated
}

DL-ReferencePowerInformation    ::= SEQUENCE {
    common-DL-ReferencePowerInformation        DL-Power        OPTIONAL,
    individual-DL-ReferencePowerInformation    DL-ReferencePowerInformationList        OPTIONAL,
    iE-Extensions                              ProtocolExtensionContainer { { DL-ReferencePowerInformation-ExtIEs } } OPTIONAL,
    ...
}

DL-ReferencePowerInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

D-RNTI                  ::= INTEGER (0..1048575)

D-RNTI-ReleaseIndication ::= ENUMERATED {
    release-D-RNTI,
    not-release-D-RNTI
}

DL-ScramblingCode        ::= INTEGER (0..15)
```

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```
DL-FrameType ::= ENUMERATED {
    typeA,
    typeB,
    ...
}

DL-Timeslot-Information ::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF DL-Timeslot-InformationItem

DL-Timeslot-InformationItem ::= SEQUENCE {
    timeSlot                    TimeSlot,
    midambleShiftAndBurstType   MidambleShiftAndBurstType,
    tFCI-Presence               TFCI-Presence,
    dL-Code-Information         TDD-DL-Code-Information,
    iE-Extensions               ProtocolExtensionContainer { {DL-Timeslot-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

DL-Timeslot-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-TimeslotLCR-Information ::= SEQUENCE (SIZE (1.. maxNrOfDLTsLCR)) OF DL-TimeslotLCR-InformationItem

DL-TimeslotLCR-InformationItem   ::= SEQUENCE {
    timeSlotLCR                       TimeSlotLCR,
    midambleShiftLCR                  MidambleShiftLCR,
    tFCI-Presence                     TFCI-Presence,
    dL-Code-LCR-Information            TDD-DL-Code-LCR-Information,
    iE-Extensions                     ProtocolExtensionContainer { { DL-TimeslotLCR-InformationItem-ExtIEs} }   OPTIONAL,
    ...
}

DL-TimeslotLCR-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Maximum-DL-Power-TimeslotLCR-InformationItem   CRITICALITY ignore   EXTENSION DL-Power                PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-Minimum-DL-Power-TimeslotLCR-InformationItem   CRITICALITY ignore   EXTENSION DL-Power                PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only
    ...
}

DL-Timeslot-Information768 ::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF DL-Timeslot-InformationItem768

DL-Timeslot-InformationItem768 ::= SEQUENCE {
    timeSlot                    TimeSlot,
    midambleShiftAndBurstType768   MidambleShiftAndBurstType768,
    tFCI-Presence               TFCI-Presence,
    dL-Code-Information768       TDD-DL-Code-Information768,
    iE-Extensions               ProtocolExtensionContainer { {DL-Timeslot-InformationItem768-ExtIEs} } OPTIONAL,
    ...
}

DL-Timeslot-InformationItem768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

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```
}

DL-TimeSlot-ISCP-Info ::= SEQUENCE (SIZE (1..maxNrOfDLTs)) OF DL-TimeSlot-ISCP-InfoItem

DL-TimeSlot-ISCP-InfoItem ::= SEQUENCE {
    timeSlot                    TimeSlot,
    dL-TimeslotISCP             DL-TimeslotISCP,
    iE-Extensions               ProtocolExtensionContainer { { DL-TimeSlot-ISCP-InfoItem-ExtIEs} } OPTIONAL,
    ...
}

DL-TimeSlot-ISCP-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-TimeSlot-ISCP-LCR-Information ::= SEQUENCE (SIZE (1..maxNrOfDLTsLCR)) OF DL-TimeSlot-ISCP-LCR-InfoItem

DL-TimeSlot-ISCP-LCR-InfoItem ::= SEQUENCE {
    timeSlotLCR                 TimeSlotLCR,
    dL-TimeslotISCP             DL-TimeslotISCP,
    iE-Extensions               ProtocolExtensionContainer { { DL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs} }   OPTIONAL,
    ...
 }

DL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-TimeslotISCP          ::= INTEGER (0..91)
-- According to mapping in [24]

Downlink-Compressed-Mode-Method     ::= ENUMERATED {
    not-Used-puncturing,
    sFdiv2,
    higher-layer-scheduling,
    ...
}

DPC-Mode ::= ENUMERATED {
    mode0,
    mode1,
    ...
}

DPC-Mode-Change-SupportIndicator ::= ENUMERATED {
    dPC-ModeChangeSupported
}

DPCH-ID                  ::= INTEGER (0..239)

DPCH-ID768 ::= INTEGER (0..479)

DPCHConstantValue ::= INTEGER (-10..10)
-- Unit dB, Step 1dB
```

```
DRACControl    ::= ENUMERATED {
    not-Used-requested,
    not-requested
}

DRXCycleLengthCoefficient            ::= INTEGER (3..9)
-- See in [16]


DRX-Information ::= SEQUENCE {
    uE-DRX-Cycle                        UE-DRX-Cycle,
    inactivity-Threshold-for-UE-DRX-Cycle              Inactivity-Threshold-for-UE-DRX-Cycle,
    inactivity-Threshold-for-UE-Grant-Monitoring       Inactivity-Threshold-for-UE-Grant-Monitoring,
    uE-DRX-Grant-Monitoring             UE-DRX-Grant-Monitoring,
    iE-Extensions                       ProtocolExtensionContainer { {DRX-Information-ExtIEs} } OPTIONAL,
    ...
}

DRX-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DRX-Information-to-Modify ::= CHOICE {
    modify          DRX-Information-to-Modify-Items,
    deactivate      NULL,
    ...
}


DRX-Information-to-Modify-Items ::= SEQUENCE {
    uE-DRX-Cycle                         UE-DRX-Cycle            OPTIONAL,
    inactivity-Threshold-for-UE-DRX-Cycle              Inactivity-Threshold-for-UE-DRX-Cycle        OPTIONAL,
    inactivity-Threshold-for-UE-Grant-Monitoring       Inactivity-Threshold-for-UE-Grant-Monitoring      OPTIONAL,
    uE-DRX-Grant-Monitoring             UE-DRX-Grant-Monitoring          OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { {DRX-Information-to-Modify-Items-ExtIEs} } OPTIONAL,
    ...
}

DRX-Information-to-Modify-Items-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-RNTI ::= INTEGER (0..65535)

DSCH-FlowControlInformation ::=  SEQUENCE (SIZE(1..16)) OF DSCH-FlowControlItem

DSCH-FlowControlItem ::= SEQUENCE {
    dSCH-SchedulingPriority         SchedulingPriorityIndicator,
    mAC-c-sh-SDU-Lengths            MAC-c-sh-SDU-LengthList,
    iE-Extensions                   ProtocolExtensionContainer { {DSCH-FlowControlItem-ExtIEs} } OPTIONAL,
    ...
}
```

ETSI

```
DSCH-FlowControlItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DSCH-InitialWindowSize  CRITICALITY ignore  EXTENSION   DSCH-InitialWindowSize  PRESENCE optional },
    ...
}

DSCH-ID                  ::= INTEGER (0..255)

DSCH-InitialWindowSize          ::= INTEGER (1..255)
-- Number of MAC-c/sh SDUs.
-- 255 = Unlimited number of MAC-c/sh SDUs

DSCH-TDD-Information ::=  SEQUENCE (SIZE (1..maxNoOfDSCHs)) OF DSCH-TDD-InformationItem

DSCH-TDD-InformationItem ::= SEQUENCE {
    dSCH-ID                         DSCH-ID,
    dl-ccTrCHID                     CCTrCH-ID, -- DL CCTrCH in which the DSCH is mapped
    trChSourceStatisticsDescriptor  TrCH-SrcStatisticsDescr,
    transportFormatSet              TransportFormatSet,
    allocationRetentionPriority     AllocationRetentionPriority,
    schedulingPriorityIndicator     SchedulingPriorityIndicator,
    bLER                            BLER,
    iE-Extensions                   ProtocolExtensionContainer { {DSCH-TDD-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

DSCH-TDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TrafficClass                  CRITICALITY ignore  EXTENSION TrafficClass            PRESENCE mandatory}|
    { ID id-BindingID                     CRITICALITY ignore  EXTENSION   BindingID              PRESENCE optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress         CRITICALITY ignore  EXTENSION   TransportLayerAddress  PRESENCE optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TnlQos                        CRITICALITY ignore  EXTENSION   TnlQos                 PRESENCE optional },
    -- Shall be ignored if bearer establishment with ALCAP.
    ...
}

DsField ::= BIT STRING (SIZE (8))


DTX-Cycle-2ms-Items ::= SEQUENCE {
    uE-DTX-Cycle1-2ms           UE-DTX-Cycle1-2ms,
    uE-DTX-Cycle2-2ms           UE-DTX-Cycle2-2ms,
    mAC-DTX-Cycle-2ms           MAC-DTX-Cycle-2ms,
    iE-Extensions                       ProtocolExtensionContainer { { DTX-Cycle-2ms-Items-ExtIEs} }           OPTIONAL,
    ...
}

DTX-Cycle-2ms-Items-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DTX-Cycle-2ms-to-Modify-Items ::= SEQUENCE {
    uE-DTX-Cycle1-2ms           UE-DTX-Cycle1-2ms           OPTIONAL,
    uE-DTX-Cycle2-2ms           UE-DTX-Cycle2-2ms           OPTIONAL,
```

```
    mAC-DTX-Cycle-2ms                    MAC-DTX-Cycle-2ms            OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { DTX-Cycle-2ms-to-Modify-Items-ExtIEs} }        OPTIONAL,
    ...
}

DTX-Cycle-2ms-to-Modify-Items-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DTX-Cycle-10ms-Items ::= SEQUENCE {
    uE-DTX-Cycle1-10ms              UE-DTX-Cycle1-10ms,
    uE-DTX-Cycle2-10ms              UE-DTX-Cycle2-10ms,
    mAC-DTX-Cycle-10ms              MAC-DTX-Cycle-10ms,
    iE-Extensions                              ProtocolExtensionContainer { { DTX-Cycle-10ms-Items-ExtIEs} }           OPTIONAL,
    ...
}

DTX-Cycle-10ms-Items-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DTX-Cycle-10ms-to-Modify-Items ::= SEQUENCE {
    uE-DTX-Cycle1-10ms              UE-DTX-Cycle1-10ms          OPTIONAL,
    uE-DTX-Cycle2-10ms              UE-DTX-Cycle2-10ms          OPTIONAL,
    mAC-DTX-Cycle-10ms              MAC-DTX-Cycle-10ms                                  OPTIONAL,
    iE-Extensions                              ProtocolExtensionContainer { { DTX-Cycle-10ms-to-Modify-Items-ExtIEs} }        OPTIONAL,
    ...
}

DTX-Cycle-10ms-to-Modify-Items-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DTX-Information ::= SEQUENCE {
    e-DCH-TTI-Length                    E-DCH-TTI-Length,
    inactivity-Threshold-for-UE-DTX-Cycle2                  Inactivity-Threshold-for-UE-DTX-Cycle2,
    uE-DTX-Long-Preamble               UE-DTX-Long-Preamble,
    mAC-Inactivity-Threshold              MAC-Inactivity-Threshold    ,
    cQI-DTX-Timer              CQI-DTX-Timer,
    uE-DPCCH-burst1           UE-DPCCH-burst1,
    uE-DPCCH-burst2           UE-DPCCH-burst2,
    iE-Extensions             ProtocolExtensionContainer { {DTX-Information-ExtIEs} } OPTIONAL,
    ...
}

DTX-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DTX-Information-to-Modify ::= CHOICE {
    modify             DTX-Information-to-Modify-Items,
    deactivate            NULL,
    ...
}
```

```
DTX-Information-to-Modify-Items ::= SEQUENCE {
    e-DCH-TTI-Length-to-Modify          E-DCH-TTI-Length-to-Modify                      OPTIONAL,
    inactivity-Threshold-for-UE-DTX-Cycle2                  Inactivity-Threshold-for-UE-DTX-Cycle2          OPTIONAL,
    uE-DTX-Long-Preamble                UE-DTX-Long-Preamble            OPTIONAL,
    mAC-Inactivity-Threshold            MAC-Inactivity-Threshold           OPTIONAL,
    cQI-DTX-Timer                       CQI-DTX-Timer                   OPTIONAL,
    uE-DPCCH-burst1                     UE-DPCCH-burst1                 OPTIONAL,
    uE-DPCCH-burst2                     UE-DPCCH-burst2                 OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { {DTX-Information-to-Modify-Items-ExtIEs} } OPTIONAL,
    ...
}

DTX-Information-to-Modify-Items-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- E

E-AGCH-Table-Choice ::= ENUMERATED{table16B, table16B-12, ...}

EDCH-DDI-Value ::= INTEGER (0..62)

EDCH-FDD-DL-ControlChannelInformation ::= SEQUENCE {
    eAGCH-ERGCH-EHICH-FDD-ScramblingCode                DL-ScramblingCode               OPTIONAL,
    eAGCH-ChannelisationCode                            FDD-DL-ChannelisationCodeNumber    OPTIONAL,
    primary-e-RNTI                                      E-RNTI                          OPTIONAL,
    secondary-e-RNTI                                    E-RNTI                          OPTIONAL,
    eRGCH-EHICH-ChannelisationCode                      FDD-DL-ChannelisationCodeNumber,
    eRGCH-SignatureSequence                             ERGCH-SignatureSequence         OPTIONAL,
    eHICH-SignatureSequence                             EHICH-SignatureSequence         OPTIONAL,
    serving-Grant-Value                                 E-Serving-Grant-Value           OPTIONAL,
    primary-Secondary-Grant-Selector                    E-Primary-Secondary-Grant-Selector  OPTIONAL,
    e-RGCH-Release-Indicator                            E-RGCH-Release-Indicator            OPTIONAL,
    iE-Extensions                                       ProtocolExtensionContainer { { EDCH-FDD-DL-ControlChannelInformation-ExtIEs } }
    OPTIONAL,
    ...
}

EDCH-FDD-DL-ControlChannelInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-RGCH-E-HICH-ChannelisationCodeValidityIndicator   CRITICALITY ignore  EXTENSION E-RGCH-E-HICH-ChannelisationCodeValidityIndicator
        PRESENCE optional }|
    { ID id-Default-Serving-Grant-in-DTX-Cycle2                 CRITICALITY ignore  EXTENSION E-Serving-Grant-Value
    PRESENCE optional },
    ...
}
E-RGCH-E-HICH-ChannelisationCodeValidityIndicator ::= ENUMERATED {
    e-RGCH-E-HICH-Channelisation-Code-response-not-valid
}

EDCH-FDD-Information ::= SEQUENCE {
    eDCH-MACdFlows-Information                   EDCH-MACdFlows-Information,
    hARQ-Process-Allocation-Scheduled-2ms-EDCH       HARQ-Process-Allocation-2ms-EDCH                                OPTIONAL,
```

```
    e-DCH-Maximum-Bitrate                           E-DCH-Maximum-Bitrate                                       OPTIONAL,
    e-DCH-Processing-Overload-Level                 E-DCH-Processing-Overload-Level                             OPTIONAL,
    e-DCH-Reference-Power-Offset                    E-DCH-Reference-Power-Offset                                OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { EDCH-FDD-Information-ExtIEs } }      OPTIONAL,
    ...
}

EDCH-FDD-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-PowerOffset-for-SchedulingInfo       CRITICALITY ignore  EXTENSION   E-DCH-PowerOffset-for-SchedulingInfo PRESENCE  optional}|
    { ID id-SixteenQAM-UL-Operation-Indicator          CRITICALITY reject  EXTENSION   SixteenQAM-UL-Operation-Indicator    PRESENCE  optional}|
    { ID id-E-AGCH-Table-Choice                        CRITICALITY ignore  EXTENSION   E-AGCH-Table-Choice              PRESENCE conditional},
    -- The IE shall be present if the SixteenQAM UL Operation Indicator IE is set to "Activate"--
    ...
}

EDCH-FDD-InformationResponse ::= SEQUENCE {
    eDCH-MACdFlow-Specific-InformationResponse      EDCH-MACdFlow-Specific-InformationResponse,
    hARQ-Process-Allocation-Scheduled-2ms-EDCH      HARQ-Process-Allocation-2ms-EDCH                            OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { EDCH-FDD-InformationResponse-ExtIEs } }      OPTIONAL,
    ...
}

EDCH-FDD-InformationResponse-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


EDCH-MACdFlow-Specific-InformationResponse ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF EDCH-MACdFlow-Specific-InformationResponseItem

EDCH-MACdFlow-Specific-InformationResponseItem ::= SEQUENCE {
    eDCH-MACdFlow-ID                                EDCH-MACdFlow-ID,
    bindingID                                       BindingID                                                   OPTIONAL,
    transportLayerAddress                           TransportLayerAddress                                       OPTIONAL,
    hARQ-Process-Allocation-NonSched-2ms-EDCH       HARQ-Process-Allocation-2ms-EDCH                            OPTIONAL,
    iE-Extensions                  ProtocolExtensionContainer { {EDCH-MACdFlow-Specific-InformationResponseItem-ExtIEs} } OPTIONAL,
    ...
}

EDCH-MACdFlow-Specific-InformationResponseItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TransportBearerNotSetupIndicator   CRITICALITY ignore  EXTENSION TransportBearerNotSetupIndicator       PRESENCE optional }, -- FDD only
    ...
}

EDCH-FDD-Information-To-Modify ::= SEQUENCE {
    eDCH-MACdFlow-Specific-Information              EDCH-MACdFlow-Specific-InfoToModifyList,
    hARQ-Process-Allocation-Scheduled-2ms-EDCH      HARQ-Process-Allocation-2ms-EDCH                            OPTIONAL,
    e-DCH-Maximum-Bitrate                           E-DCH-Maximum-Bitrate                                       OPTIONAL,
    e-DCH-Processing-Overload-Level                 E-DCH-Processing-Overload-Level                             OPTIONAL,
    e-DCH-Reference-Power-Offset                    E-DCH-Reference-Power-Offset                                OPTIONAL,
    mACeReset-Indicator                             MACeReset-Indicator                                         OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { EDCH-FDD-Information-To-Modify-ExtIEs } }      OPTIONAL,
    ...
}
```

```
EDCH-FDD-Information-To-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-E-DCH-PowerOffset-for-SchedulingInfo          CRITICALITY ignore  EXTENSION    E-DCH-PowerOffset-for-SchedulingInfo          PRESENCE
optional}|
{ ID id-SixteenQAM-UL-Operation-Indicator             CRITICALITY reject  EXTENSION    SixteenQAM-UL-Operation-Indicator             PRESENCE
optional}|
{ ID id-E-DCH-DL-Control-Channel-Grant-Information    CRITICALITY ignore  EXTENSION    E-DCH-DL-Control-Channel-Grant-Information     PRESENCE
optional}|
    { ID id-E-AGCH-Table-Choice                       CRITICALITY ignore  EXTENSION    E-AGCH-Table-Choice                           PRESENCE
conditional},
    -- The IE shall be present if the SixteenQAM UL Operation Indicator IE is set to "Activate"--
    ...
}
E-DCH-FDD-Update-Information ::= SEQUENCE {
    e-DCH-MACdFlow-Specific-UpdateInformation     E-DCH-MACdFlow-Specific-UpdateInformation                                  OPTIONAL,
    hARQ-Process-Allocation-Scheduled-2ms-EDCH    HARQ-Process-Allocation-2ms-EDCH                                           OPTIONAL,
    iE-Extensions                                 ProtocolExtensionContainer { { E-DCH-FDD-Update-Information-ExtIEs } }      OPTIONAL,
    ...
}

E-DCH-FDD-Update-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-DL-Control-Channel-Change-Information       CRITICALITY ignore  EXTENSION   E-DCH-DL-Control-Channel-Change-Information
    PRESENCE optional},
    ...
}


E-DCH-MACdFlow-Specific-UpdateInformation ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-MACdFlow-Specific-UpdateInformation-Item

E-DCH-MACdFlow-Specific-UpdateInformation-Item ::= SEQUENCE {
    e-DCH-MACdFlow-ID                             EDCH-MACdFlow-ID,
    hARQ-Process-Allocation-NonSched-2ms-EDCH     HARQ-Process-Allocation-2ms-EDCH                                           OPTIONAL,
    iE-Extensions                                 ProtocolExtensionContainer { { E-DCH-MACdFlow-Specific-UpdateInformation-Item-ExtIEs} }
    OPTIONAL,
    ...
}

E-DCH-MACdFlow-Specific-UpdateInformation-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-DL-Control-Channel-Change-Information ::= SEQUENCE (SIZE (1..maxNrOfEDCHRLs)) OF E-DCH-DL-Control-Channel-Change-Information-Item

E-DCH-DL-Control-Channel-Change-Information-Item ::= SEQUENCE {
    e-DCH-RL-ID                       RL-ID,
    iE-Extensions                     ProtocolExtensionContainer { { E-DCH-DL-Control-Channel-Change-Information-Item-ExtIEs} }OPTIONAL,
    ...
}

E-DCH-DL-Control-Channel-Change-Information-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-DL-Control-Channel-Grant-Information ::= SEQUENCE (SIZE (1..maxNrOfEDCHRLs)) OF E-DCH-DL-Control-Channel-Grant-Information-Item
```

```
E-DCH-DL-Control-Channel-Grant-Information-Item ::= SEQUENCE {
    e-DCH-RL-ID                             RL-ID,
    iE-Extensions                           ProtocolExtensionContainer { { E-DCH-DL-Control-Channel-Grant-Information-Item-ExtIEs} } OPTIONAL,
    ...
}

E-DCH-DL-Control-Channel-Grant-Information-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


E-DCH-Grant-Type-Information ::= CHOICE {
    e-DCH-Non-Scheduled-Transmission-Grant      E-DCH-Non-Scheduled-Transmission-Grant-Items,
    e-DCH-Scheduled-Transmission-Grant          NULL,
    ...
}

E-DCH-HARQ-PO-FDD ::= INTEGER (0.. maxNrOfEDCH-HARQ-PO-QUANTSTEPs)


E-DCH-LogicalChannelInformation ::= SEQUENCE (SIZE (1..maxNoOfLogicalChannels)) OF E-DCH-LogicalChannelInformationItem

E-DCH-LogicalChannelInformationItem ::= SEQUENCE {
    logicalChannelId            LogicalChannelID,
    schedulingPriorityIndicator SchedulingPriorityIndicator,
    schedulingInformation       SchedulingInformation,
    mACes-GuaranteedBitRate     MACes-Guaranteed-Bitrate       OPTIONAL,
    eDCH-DDI-Value              EDCH-DDI-Value,
    mACd-PDU-Size-List          E-DCH-MACdPDU-SizeList,
    iE-Extensions               ProtocolExtensionContainer { { E-DCH-LogicalChannelInformationItem-ExtIEs } }        OPTIONAL,
    ...
}

E-DCH-LogicalChannelInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-MACes-Maximum-Bitrate-LCR      CRITICALITY ignore     EXTENSION   MACes-Maximum-Bitrate-LCR    PRESENCE optional }, --1.28Mcps TDD
only
    ...
}

E-DCH-Maximum-Bitrate ::= INTEGER (0..5742,...,5743..11498)

E-DCH-PowerOffset-for-SchedulingInfo ::= INTEGER (0.. maxNrOfEDCH-HARQ-PO-QUANTSTEPs)

E-DCH-Processing-Overload-Level ::= INTEGER (0..10,...)

E-DCH-Reference-Power-Offset ::= INTEGER (0.. maxNrOfEDCH-HARQ-PO-QUANTSTEPs)

E-DCH-MACdPDU-SizeList ::= SEQUENCE (SIZE (1..maxNrOfMACdPDUSize)) OF E-DCH-MACdPDU-SizeListItem

E-DCH-MACdPDU-SizeListItem ::= SEQUENCE {
    mACdPDU-Size                MACdPDU-Size,
    iE-Extensions               ProtocolExtensionContainer { { E-DCH-MACdPDU-SizeListItem-ExtIEs } }        OPTIONAL,
    ...
}
```

ETSI

```
E-DCH-MACdPDU-SizeListItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}



E-DCH-LogicalChannelToModify ::= SEQUENCE (SIZE (1..maxNoOfLogicalChannels)) OF E-DCH-LogicalChannelToModifyItem

E-DCH-LogicalChannelToModifyItem ::= SEQUENCE {
    logicalChannelId            LogicalChannelID,
    schedulingPriorityIndicator SchedulingPriorityIndicator    OPTIONAL,
    schedulingInformation       SchedulingInformation          OPTIONAL,
    mACes-GuaranteedBitRate     MACes-Guaranteed-Bitrate       OPTIONAL,
    eDCH-DDI-Value              EDCH-DDI-Value                 OPTIONAL,
    mACd-PDU-Size-List          E-DCH-MACdPDU-SizeToModifyList,
    iE-Extensions               ProtocolExtensionContainer { { E-DCH-LogicalChannelToModifyItem-ExtIEs } }        OPTIONAL,
    ...
}

E-DCH-LogicalChannelToModifyItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-MACes-Maximum-Bitrate-LCR      CRITICALITY ignore     EXTENSION   MACes-Maximum-Bitrate-LCR    PRESENCE optional }, --1.28Mcps TDD
only
    ...
}

E-DCH-MACdPDU-SizeToModifyList ::= SEQUENCE (SIZE (0..maxNrOfMACdPDUSize)) OF E-DCH-MACdPDU-SizeListItem



E-DCH-LogicalChannelToDelete ::= SEQUENCE (SIZE (1..maxNoOfLogicalChannels)) OF E-DCH-LogicalChannelToDeleteItem

E-DCH-LogicalChannelToDeleteItem ::= SEQUENCE {
    logicalChannelId            LogicalChannelID,
    iE-Extensions               ProtocolExtensionContainer { { E-DCH-LogicalChannelToDeleteItem-ExtIEs } }        OPTIONAL,
    ...
}

E-DCH-LogicalChannelToDeleteItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

LogicalChannelID ::= INTEGER (1..15)



EDCH-MACdFlow-ID ::= INTEGER (0..maxNrOfEDCHMACdFlows-1)

EDCH-MACdFlows-Information ::= SEQUENCE {
    eDCH-MACdFlow-Specific-Information          EDCH-MACdFlow-Specific-InfoList,
    iE-Extensions                              ProtocolExtensionContainer { { EDCH-MACdFlow-Information-ExtIEs } }       OPTIONAL,
    ...
}
```

ETSI

```
E-DCH-MACdFlow-Multiplexing-List ::= BIT STRING ( SIZE(maxNrOfEDCHMACdFlows) )

EDCH-MACdFlow-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

EDCH-MACdFlow-Specific-InfoList ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF EDCH-MACdFlow-Specific-InfoItem

EDCH-MACdFlow-Specific-InfoItem ::= SEQUENCE {
    eDCH-MACdFlow-ID                    EDCH-MACdFlow-ID,
    allocationRetentionPriority         AllocationRetentionPriority         OPTIONAL,
    tnlQoS                              TnlQos                              OPTIONAL,
    payloadCRC-PresenceIndicator        PayloadCRC-PresenceIndicator,
    maxNr-Retransmissions-EDCH          MaxNr-Retransmissions-EDCH,
    trafficClass                        TrafficClass,
    eDCH-HARQ-PO-FDD                    E-DCH-HARQ-PO-FDD,
    eDCH-MACdFlow-Multiplexing-List     E-DCH-MACdFlow-Multiplexing-List    OPTIONAL,
    eDCH-Grant-Type-Information         E-DCH-Grant-Type-Information        OPTIONAL,
    bundlingModeIndicator               BundlingModeIndicator               OPTIONAL,
    eDCHLogicalChannelInformation       E-DCH-LogicalChannelInformation,
    iE-Extensions                       ProtocolExtensionContainer { { EDCH-MACdFlow-Specific-InfoItem-ExtIEs } }        OPTIONAL,
    ...
}

EDCH-MACdFlow-Specific-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-TrCH-SrcStatisticsDescr  CRITICALITY ignore  EXTENSION   TrCH-SrcStatisticsDescr PRESENCE optional },
    ...
}

EDCH-MACdFlow-Specific-InfoToModifyList ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF EDCH-MACdFlow-Specific-InfoToModifyItem

EDCH-MACdFlow-Specific-InfoToModifyItem ::= SEQUENCE {
    eDCH-MACdFlow-ID                    EDCH-MACdFlow-ID,
    allocationRetentionPriority         AllocationRetentionPriority         OPTIONAL,
    transportBearerRequestIndicator     TransportBearerRequestIndicator,
    tnlQoS                              TnlQos                              OPTIONAL,
    maxNr-Retransmissions-EDCH          MaxNr-Retransmissions-EDCH          OPTIONAL,
    trafficClass                        TrafficClass                        OPTIONAL,
    eDCH-HARQ-PO-FDD                    E-DCH-HARQ-PO-FDD                    OPTIONAL,
    eDCH-MACdFlow-Multiplexing-List     E-DCH-MACdFlow-Multiplexing-List    OPTIONAL,
    eDCH-Grant-Type-Information         E-DCH-Grant-Type-Information        OPTIONAL,
    bundlingModeIndicator               BundlingModeIndicator               OPTIONAL,
    eDCH-LogicalChannelToAdd            E-DCH-LogicalChannelInformation     OPTIONAL,
    eDCH-LogicalChannelToModify         E-DCH-LogicalChannelToModify        OPTIONAL,
    eDCH-LogicalChannelToDelete         E-DCH-LogicalChannelToDelete        OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { EDCH-MACdFlow-Specific-InfoToModifyItem-ExtIEs } }       OPTIONAL,
    ...
}

EDCH-MACdFlow-Specific-InfoToModifyItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

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```
EDCH-MACdFlows-To-Delete ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF EDCH-MACdFlows-To-Delete-Item

EDCH-MACdFlows-To-Delete-Item ::= SEQUENCE {
    eDCH-MACdFlow-ID                    EDCH-MACdFlow-ID,
    iE-Extensions                       ProtocolExtensionContainer { { EDCH-MACdFlows-To-Delete-Item-ExtIEs } }        OPTIONAL,
    ...
}

EDCH-MACdFlows-To-Delete-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

EDCH-RL-Indication ::= ENUMERATED {
    eDCH,
    non-EDCH
}

E-DCH-Non-Scheduled-Transmission-Grant-Items ::= SEQUENCE {
    -- The following IE shall be ignored if id-Ext-Max-Bits-MACe-PDU-non-scheduled is present in E-DCH-Non-Scheduled-Transmission-Grant-Items-
ExtIEs
    maxBits-MACe-PDU-non-scheduled            Max-Bits-MACe-PDU-non-scheduled,
    hARQ-Process-Allocation-NonSched-2ms      HARQ-Process-Allocation-2ms-EDCH
    OPTIONAL,
    iE-Extensions                             ProtocolExtensionContainer { { E-DCH-Non-Scheduled-Transmission-Grant-Items-ExtIEs} }
    OPTIONAL,
    ...
}

E-DCH-Non-Scheduled-Transmission-Grant-Items-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    -- The following IE shall be present if the maximum number of bits to be signalled exceeds maxNrOfBits-MACe-PDU-non-scheduled
    { ID id-Ext-Max-Bits-MACe-PDU-non-scheduled    CRITICALITY reject    EXTENSION   Ext-Max-Bits-MACe-PDU-non-scheduled    PRESENCE optional},
    ...
}

E-DCH-TFCI-Table-Index ::= INTEGER (0..1,...,2..7)

E-DCH-Serving-cell-change-informationResponse ::= SEQUENCE {
    e-DCH-serving-cell-outcome-choice       E-DCH-serving-cell-change-choice,
    iE-Extensions                           ProtocolExtensionContainer { { E-DCH-serving-cell-change-informationResponse-ExtIEs} } OPTIONAL,
    ...
}

E-DCH-serving-cell-change-informationResponse-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-serving-cell-change-choice ::= CHOICE {
    e-DCH-serving-cell-change-successful        E-DCH-serving-cell-change-successful,
    e-DCH-serving-cell-change-unsuccessful      E-DCH-serving-cell-change-unsuccessful,
    ...
}

E-DCH-serving-cell-change-successful ::= SEQUENCE {
    e-DCH-RL-InformationList-Rsp                     E-DCH-RL-InformationList-Rsp,
```

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```
    iE-Extensions                                         ProtocolExtensionContainer { { E-DCH-serving-cell-change-successful-ExtIEs} } OPTIONAL,
    ...
}

E-DCH-serving-cell-change-successful-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-RL-InformationList-Rsp ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF E-DCH-RL-InformationList-Rsp-Item

E-DCH-RL-InformationList-Rsp-Item ::= SEQUENCE {
    e-DCH-reconfigured-RL-Id                  RL-ID,
    e-DCH-FDD-DL-Control-Channel-Info         EDCH-FDD-DL-ControlChannelInformation,
    iE-Extensions                             ProtocolExtensionContainer { { E-DCH-RL-InformationList-Rsp-Item-ExtIEs} }  OPTIONAL,
    ...
}

E-DCH-RL-InformationList-Rsp-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


E-DCH-serving-cell-change-unsuccessful ::= SEQUENCE {
    cause                          Cause,
    iE-Extensions                  ProtocolExtensionContainer { { E-DCH-serving-cell-change-unsuccessful-ExtIEs} } OPTIONAL,
    ...
}

E-DCH-serving-cell-change-unsuccessful-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-TTI-Length ::= CHOICE {
    two-ms    DTX-Cycle-2ms-Items,
    ten-ms    DTX-Cycle-10ms-Items,
    ...
}

E-DCH-TTI-Length-to-Modify ::= CHOICE {
    two-ms    DTX-Cycle-2ms-to-Modify-Items,
    ten-ms    DTX-Cycle-10ms-to-Modify-Items,
    ...
}

EDPCH-Information-FDD ::= SEQUENCE {
    maxSet-E-DPDCHs                                       Max-Set-E-DPDCHs,
    punctureLimit                                        PunctureLimit,
    e-TFCS-Information                                    E-TFCS-Information,
    e-TTI                                                E-TTI,
    e-DPCCH-PO                                           E-DPCCH-PO,
    e-RGCH-2-IndexStepThreshold                          E-RGCH-2-IndexStepThreshold,
    e-RGCH-3-IndexStepThreshold                          E-RGCH-3-IndexStepThreshold,
    hARQ-Info-for-E-DCH                                  HARQ-Info-for-E-DCH,
```

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```
        hSDSCH-Configured-Indicator                                    HSDSCH-Configured-Indicator,
        iE-Extensions                          ProtocolExtensionContainer { { EDPCH-Information-FDD-ExtIEs } }        OPTIONAL,
        ...
}

EDPCH-Information-FDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
        ...
}

EDPCH-Information-RLReconfPrepare-FDD ::= SEQUENCE {
        maxSet-E-DPDCHs                                   Max-Set-E-DPDCHs         OPTIONAL,
        punctureLimit                                     PunctureLimit            OPTIONAL,
        e-TFCS-Information                                E-TFCS-Information       OPTIONAL,
        e-TTI                                             E-TTI                    OPTIONAL,
        e-DPCCH-PO                                        E-DPCCH-PO               OPTIONAL,
        e-RGCH-2-IndexStepThreshold                       E-RGCH-2-IndexStepThreshold        OPTIONAL,
        e-RGCH-3-IndexStepThreshold                       E-RGCH-3-IndexStepThreshold        OPTIONAL,
        hARQ-Info-for-E-DCH                               HARQ-Info-for-E-DCH                OPTIONAL,
        hSDSCH-Configured-Indicator                       HSDSCH-Configured-Indicator        OPTIONAL,
        iE-Extensions                          ProtocolExtensionContainer { { EDPCH-Information-RLReconfPrepare-FDD-ExtIEs } }        OPTIONAL,
        ...
}

EDPCH-Information-RLReconfPrepare-FDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
        ...
}

EDPCH-Information-RLReconfRequest-FDD ::= SEQUENCE {
        maxSet-E-DPDCHs                                                   Max-Set-E-DPDCHs                                   OPTIONAL,
        punctureLimit                                                    PunctureLimit                                      OPTIONAL,
        e-TFCS-Information                                               E-TFCS-Information                                 OPTIONAL,
        e-TTI                                                            E-TTI                                              OPTIONAL,
        e-DPCCH-PO                                                       E-DPCCH-PO                                         OPTIONAL,
        e-RGCH-2-IndexStepThreshold                                      E-RGCH-2-IndexStepThreshold                        OPTIONAL,
        e-RGCH-3-IndexStepThreshold                                      E-RGCH-3-IndexStepThreshold                        OPTIONAL,
        hARQ-Info-for-E-DCH                                              HARQ-Info-for-E-DCH                                OPTIONAL,
        hSDSCH-Configured-Indicator                                      HSDSCH-Configured-Indicator                        OPTIONAL,
        iE-Extensions                          ProtocolExtensionContainer { { EDPCH-Information-RLReconfRequest-FDD-ExtIEs } }        OPTIONAL,
        ...
}

EDPCH-Information-RLReconfRequest-FDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
        ...
}

E-DPCCH-PO ::= INTEGER (0..maxNrOfEDPCCH-PO-QUANTSTEPs)

E-DPDCH-PowerInterpolation ::= BOOLEAN

E-Primary-Secondary-Grant-Selector ::= ENUMERATED {
        primary,
        secondary
}
```

```
EHICH-SignatureSequence ::= INTEGER  (0..maxNrofSigSeqERGHICH-1)


E-RGCH-Release-Indicator ::= ENUMERATED {e-RGCHreleased}

ERGCH-SignatureSequence ::= INTEGER  (0..maxNrofSigSeqERGHICH-1)

E-Serving-Grant-Value ::= INTEGER (0..38)

E-RGCH-2-IndexStepThreshold ::= INTEGER (0..37)

E-RGCH-3-IndexStepThreshold ::= INTEGER (0..37)


EDCH-Serving-RL ::= CHOICE {
    e-DCH-Serving-RL-in-this-DRNS         EDCH-Serving-RL-in-this-DRNS,
    e-DCH-Serving-RL-not-in-this-DRNS     NULL,
    ...
}

EDCH-Serving-RL-in-this-DRNS ::= SEQUENCE {
    e-DCH-Serving-RL-Id          RL-ID,
    iE-Extensions                ProtocolExtensionContainer { { EDCH-Serving-RL-in-this-DRNS-ExtIEs} }         OPTIONAL,
    ...
}

EDCH-Serving-RL-in-this-DRNS-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Enhanced-FACH-Information-ResponseFDD ::= SEQUENCE {
    common-HS-DSCH-RNTI-priorityQueueInfo-EnhancedFACH              PriorityQueue-InfoList-EnhancedFACH-PCH,
    dedicated-HS-DSCH-RNTI-priorityQueueInfo-EnhancedFACH           PriorityQueue-InfoList-EnhancedFACH-PCH,
    priorityQueueInfo-EnhancedPCH            PriorityQueue-InfoList-EnhancedFACH-PCH                 OPTIONAL,
    hSDSCH-Initial-Capacity-Allocation                HSDSCH-Initial-Capacity-Allocation,
    hSDSCH-RNTI                                       HSDSCH-RNTI                                                OPTIONAL,
    iE-Extensions                    ProtocolExtensionContainer { { Enhanced-FACH-Information-ResponseFDD-ExtIEs } }         OPTIONAL,
    ...
}

Enhanced-FACH-Information-ResponseFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Enhanced-FACH-Support-Indicator ::= NULL

Enhanced-PCH-Capability ::= ENUMERATED {
    enhanced-pch-capable,
    enhanced-pch-not-capable
}


E-RNTI ::= INTEGER (0..65535)
```

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```
E-TFCI ::= INTEGER (0..127)

E-TFCI-BetaEC-Boost ::= INTEGER (0..127,...)


E-TFCI-Boost-Information ::= SEQUENCE {
    e-TFCI-BetaEC-Boost                             E-TFCI-BetaEC-Boost,
    uL-Delta-T2TP                                   UL-Delta-T2TP          OPTIONAL,
    -- This IE shall be present if the E-TFCI BetaEC Boost IE value is not set to 127.
    iE-Extensions                                   ProtocolExtensionContainer { { E-TFCI-Boost-Information-ExtIEs} }    OPTIONAL,
    ...
}

E-TFCI-Boost-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-TFCS-Information ::= SEQUENCE {
    e-DCH-TFCI-Table-Index                          E-DCH-TFCI-Table-Index,
    e-DCH-Min-Set-E-TFCI                            E-TFCI,
    reference-E-TFCI-Information                     Reference-E-TFCI-Information,
    iE-Extensions                                   ProtocolExtensionContainer { {E-TFCS-Information-ExtIEs} }        OPTIONAL,
    ...

}

E-TFCS-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-Minimum-Set-E-TFCIValidityIndicator   CRITICALITY reject  EXTENSION E-DCH-Minimum-Set-E-TFCIValidityIndicator      PRESENCE
optional }|
    { ID id-E-TFCI-Boost-Information                                 CRITICALITY reject  EXTENSION E-TFCI-Boost-Information             PRESENCE
optional }|
    { ID id-E-DPDCH-PowerInterpolation                          CRITICALITY reject  EXTENSION E-DPDCH-PowerInterpolation             PRESENCE
optional },
    ...
}

E-DCH-Minimum-Set-E-TFCIValidityIndicator ::= ENUMERATED {
    e-DCH-Minimum-Set-E-TFCI-response-not-valid
}

E-TTI  ::= ENUMERATED {
    tti10,
    tti2
-- 10ms TTI, 2ms TTI
}

E-AGCH-PowerOffset ::= INTEGER (0..255,...)
-- PowerOffset = -32 + offset * 0.25
-- Unit dB, Range -32dB .. +31.75dB, Step +0.25dB

E-RGCH-PowerOffset ::= INTEGER (0..255,...)
-- PowerOffset = -32 + offset * 0.25
-- Unit dB, Range -32dB .. +31.75dB, Step +0.25dB
```

```
E-HICH-PowerOffset ::= INTEGER (0..255,...)
-- PowerOffset = -32 + offset * 0.25
-- Unit dB, Range -32dB .. +31.75dB, Step +0.25dB


Enhanced-PrimaryCPICH-EcNo          ::= INTEGER (0..49)


EventA ::= SEQUENCE {
    measurementTreshold     MeasurementThreshold,
    measurementHysteresisTime   MeasurementHysteresisTime       OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { {EventA-ExtIEs} } OPTIONAL,
    ...
}


EventA-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


EventB ::= SEQUENCE {
    measurementTreshold     MeasurementThreshold,
    measurementHysteresisTime   MeasurementHysteresisTime       OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { {EventB-ExtIEs} } OPTIONAL,
    ...
}


EventB-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}



EventC ::= SEQUENCE {
    measurementIncreaseDecreaseThreshold    MeasurementIncreaseDecreaseThreshold,
    measurementChangeTime       MeasurementChangeTime,
    iE-Extensions           ProtocolExtensionContainer { {EventC-ExtIEs} } OPTIONAL,
    ...
}


EventC-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


EventD ::= SEQUENCE {
    measurementIncreaseDecreaseThreshold    MeasurementIncreaseDecreaseThreshold,
    measurementChangeTime       MeasurementChangeTime,
    iE-Extensions           ProtocolExtensionContainer { {EventD-ExtIEs} } OPTIONAL,
    ...
}


EventD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


EventE ::= SEQUENCE {
    measurementThreshold1       MeasurementThreshold,
    measurementThreshold2       MeasurementThreshold            OPTIONAL,
```

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```
    measurementHysteresisTime   MeasurementHysteresisTime       OPTIONAL,
    reportPeriodicity           ReportPeriodicity          OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {EventE-ExtIEs} } OPTIONAL,
    ...
}

EventE-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

EventF ::= SEQUENCE {
    measurementThreshold1       MeasurementThreshold,
    measurementThreshold2       MeasurementThreshold            OPTIONAL,
    measurementHysteresisTime   MeasurementHysteresisTime       OPTIONAL,
    reportPeriodicity           ReportPeriodicity          OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {EventF-ExtIEs} } OPTIONAL,
    ...
}

EventF-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

ExtendedGSMCellIndividualOffset ::= INTEGER (-50..-11|11..50)

E-DCH-Information ::= SEQUENCE {
    e-PUCH-Information                    E-PUCH-Information,
    e-TFCS-Information-TDD                E-TFCS-Information-TDD,
    e-DCH-MACdFlows-Information-TDD       E-DCH-MACdFlows-Information-TDD,
    e-DCH-TDD-Information                 E-DCH-TDD-Information,
    iE-Extensions                        ProtocolExtensionContainer { { E-DCH-Information-ExtIEs} }        OPTIONAL,
    ...
}

E-DCH-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-PUCH-Information  ::= SEQUENCE {
    minCR                                CodeRate,
    maxCR                                CodeRate,
    harqInfo                             HARQ-Info-for-E-DCH,
    n-E-UCCH                             N-E-UCCH,
    iE-Extensions                        ProtocolExtensionContainer { { E-PUCH-Information-ExtIEs } }        OPTIONAL,
    ...
}

E-PUCH-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-TFCS-Information-TDD  ::= SEQUENCE {
    e-DCH-QPSK-RefBetaInfo               E-DCH-QPSK-RefBetaInfo,
    e-DCH-sixteenQAM-RefBetaInfo         E-DCH-sixteenQAM-RefBetaInfo,
```

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```
    iE-Extensions                                    ProtocolExtensionContainer { { E-TFCS-Information-TDD-ExtIEs } }        OPTIONAL,
    ...
}

E-TFCS-Information-TDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-QPSK-RefBetaInfo ::= SEQUENCE (SIZE (1..maxNrOfRefBetas)) OF E-DCH-RefBeta-Item

E-DCH-sixteenQAM-RefBetaInfo ::= SEQUENCE (SIZE (1..maxNrOfRefBetas)) OF E-DCH-RefBeta-Item

E-DCH-RefBeta-Item  ::= SEQUENCE {
    refCodeRate          CodeRate-short,
    refBeta              RefBeta
}

E-DCH-MACdFlows-Information-TDD  ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-MACdFlow-InfoTDDItem

E-DCH-MACdFlow-InfoTDDItem ::= SEQUENCE {
    e-DCH-MACdFlow-ID                        EDCH-MACdFlow-ID,
    allocationRetentionPriority              AllocationRetentionPriority,
    tnlQos                                   TnlQos                        OPTIONAL,
    bindingID                                BindingID                     OPTIONAL,
    transportLayerAddress                    TransportLayerAddress    OPTIONAL,
    payloadCRC-PresenceIndicator             PayloadCRC-PresenceIndicator,
    maximum-Number-of-Retransmissions-For-E-DCH    MaxNr-Retransmissions-EDCH,
    eDCH-HARQ-PO-TDD                         E-DCH-HARQ-PO-TDD,
    eDCH-MACdFlow-Multiplexing-List          E-DCH-MACdFlow-Multiplexing-List                OPTIONAL,
    eDCH-Grant-TypeTDD                       E-DCH-Grant-TypeTDD,
    eDCHLogicalChannelInformation            E-DCH-LogicalChannelInformation,
    iE-Extensions                            ProtocolExtensionContainer { { E-DCH-MACdFlow-InfoTDDItem-ExtIEs} }        OPTIONAL,
    ...
}

E-DCH-MACdFlow-InfoTDDItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-eDCH-MACdFlow-Retransmission-Timer-LCR CRITICALITY ignore    EXTENSION E-DCH-MACdFlow-Retransmission-Timer-LCR    PRESENCE optional
}|
    { ID id-TrafficClass                        CRITICALITY ignore    EXTENSION TrafficClass                                PRESENCE
mandatory},
    ...
}


E-DCH-MACdFlow-Retransmission-Timer-LCR ::= ENUMERATED {
ms10, ms15, ms20, ms25, ms30, ms35, ms40, ms45, ms50, ms55, ms60, ms65, ms70, ms75, ms80, ms85, ms90,
ms95, ms100, ms110, ms120, ms140, ms160, ms200, ms240, ms280, ms320, ms400, ms480, ms560,...
}

E-DCH-HARQ-PO-TDD ::= INTEGER (0..6)

E-DCH-Grant-TypeTDD ::= ENUMERATED {
    scheduled,
    non-scheduled
```

```
}

E-DCH-TimeslotResource ::= BIT STRING (SIZE (13))

E-DCH-PowerResource ::= INTEGER(1..32)

TddE-PUCH-Offset ::= INTEGER(0..255)

E-DCH-TDD-Information  ::= SEQUENCE {
    e-DCH-TDD-Maximum-Bitrate                       E-DCH-TDD-Maximum-Bitrate                           OPTIONAL,
    e-DCH-Processing-Overload-Level                 E-DCH-Processing-Overload-Level                     OPTIONAL,
    e-DCH-PowerOffset-for-SchedulingInfo            E-DCH-PowerOffset-for-SchedulingInfo                OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { E-DCH-TDD-Information-ExtIEs } }  OPTIONAL,
    ...
}

E-DCH-TDD-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-TDD-Maximum-Bitrate ::= INTEGER (0..9201,...)

E-DCH-Information-Reconfig ::= SEQUENCE {
    e-PUCH-Information                              E-PUCH-Information                                   OPTIONAL,
    e-TFCS-Information-TDD                          E-TFCS-Information-TDD                               OPTIONAL,
    e-DCH-MACdFlows-to-Add                          E-DCH-MACdFlows-Information-TDD                      OPTIONAL,
    e-DCH-MACdFlows-to-Delete                       EDCH-MACdFlows-To-Delete                            OPTIONAL,
    e-DCH-Non-Scheduled-Grant-Info                 E-DCH-Non-Scheduled-Grant-Info                      OPTIONAL,
    e-DCH-TDD-Information                           E-DCH-TDD-Information                                OPTIONAL,
    e-DCH-TDD-Information-to-Modify                 E-DCH-TDD-Information-to-Modify                      OPTIONAL,
    iE-Extensions                                  ProtocolExtensionContainer { { E-DCH-Information-Reconfig-ExtIEs} }   OPTIONAL,
    ...
}

E-DCH-Information-Reconfig-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-TDD-Information-to-Modify ::= SEQUENCE {
    e-DCH-TDD-Information-to-Modify-List    E-DCH-TDD-Information-to-Modify-List    OPTIONAL,
    mACeReset-Indicator                     MACeReset-Indicator                    OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { E-DCH-TDD-Information-to-Modify-ExtIEs } }    OPTIONAL,
    ...
}

E-DCH-TDD-Information-to-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
E-DCH-TDD-Information-to-Modify-List ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-MACdFlow-ModifyTDDItem

E-DCH-MACdFlow-ModifyTDDItem ::= SEQUENCE {
    e-DCH-MACdFlow-ID                       EDCH-MACdFlow-ID,
    allocationRetentionPriority             AllocationRetentionPriority     OPTIONAL,
    transportBearerRequestIndicator         TransportBearerRequestIndicator,
```

```
    bindingID                                 BindingID               OPTIONAL,
    transportLayerAddress                     TransportLayerAddress   OPTIONAL,
    tnlQos                                    TnlQos                  OPTIONAL,
    maximum-Number-of-Retransmissions-For-E-DCH   MaxNr-Retransmissions-EDCH    OPTIONAL,
    eDCH-HARQ-PO-TDD                          E-DCH-HARQ-PO-TDD                      OPTIONAL,
    eDCH-MACdFlow-Multiplexing-List           E-DCH-MACdFlow-Multiplexing-List           OPTIONAL,
    eDCH-Grant-TypeTDD                        E-DCH-Grant-TypeTDD                        OPTIONAL,
    e-DCH-LogicalChannelToAdd                 E-DCH-LogicalChannelInformation                OPTIONAL,
    e-DCH-LogicalChannelToModify              E-DCH-LogicalChannelToModify                   OPTIONAL,
    e-DCH-LogicalChannelToDelete              E-DCH-LogicalChannelToDelete                   OPTIONAL,
    iE-Extensions                             ProtocolExtensionContainer { {E-DCH-MACdFlow-ModifyTDDItem-ExtIEs } }OPTIONAL,
    ...
}

E-DCH-MACdFlow-ModifyTDDItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-eDCH-MACdFlow-Retransmission-Timer-LCR     CRITICALITY ignore     EXTENSION E-DCH-MACdFlow-Retransmission-Timer-LCR     PRESENCE
optional }|
    { ID id-TrafficClass                               CRITICALITY ignore     EXTENSION TrafficClass                               PRESENCE
optional},
    ...
}

E-DCH-Information-Response ::= SEQUENCE {
    e-DCH-TDD-MACdFlow-Specific-InformationResp    E-DCH-TDD-MACdFlow-Specific-InformationResp OPTIONAL,
    e-AGCH-Specific-Information-ResponseTDD         E-AGCH-Specific-InformationRespListTDD  OPTIONAL,
    e-HICH-Information-Response                     E-HICH-InformationResp  OPTIONAL,
    e-DCH-Non-Scheduled-Grant-Info                 E-DCH-Non-Scheduled-Grant-Info  OPTIONAL,
    e-RNTI                                         E-RNTI,
    iE-Extensions                                  ProtocolExtensionContainer { { E-DCH-Information-Response-ExtIEs } }    OPTIONAL,
    ...
}

E-DCH-Information-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-TDD-MACdFlow-Specific-InformationResp ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-TDD-MACdFlow-Specific-InformationResp-Item

E-DCH-TDD-MACdFlow-Specific-InformationResp-Item ::= SEQUENCE {
    e-DCH-MacdFlow-Id                         EDCH-MACdFlow-ID,
    bindingID                                 BindingID               OPTIONAL,
    transportLayerAddress                     TransportLayerAddress   OPTIONAL,
    iE-Extensions                             ProtocolExtensionContainer { { E-DCH-TDD-MACdFlow-Specific-InformationRespItem-ExtIEs } }
    OPTIONAL,
    ...
}

E-DCH-TDD-MACdFlow-Specific-InformationRespItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-AGCH-Specific-InformationRespListTDD ::= SEQUENCE (SIZE (1..maxNrOfEAGCHCodes)) OF E-AGCH-Specific-InformationResp-ItemTDD

E-AGCH-Specific-InformationResp-ItemTDD ::= SEQUENCE {
```

```
    timeslot                                    TimeSlot,
    midambleShiftAndBurstType                   MidambleShiftAndBurstType,
    tDD-ChannelisationCode                      TDD-ChannelisationCode,
    iE-Extensions                               ProtocolExtensionContainer { { E-AGCH-Specific-InformationResp-ItemTDD-ExtIEs } }   OPTIONAL,
    ...
}

E-AGCH-Specific-InformationResp-ItemTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-HICH-InformationResp::= SEQUENCE {
    timeslot                                    TimeSlot,
    midambleShiftAndBurstType                   MidambleShiftAndBurstType,
    tDD-ChannelisationCode                      TDD-ChannelisationCode,
    e-HICH-TimeOffset                           E-HICH-TimeOffset,
    iE-Extensions                               ProtocolExtensionContainer { { E-HICH-InformationResp-ExtIEs } }     OPTIONAL,
    ...
}

E-HICH-InformationResp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-HICH-TimeOffset ::= INTEGER (4..44)

E-DCH-Non-Scheduled-Grant-Info  ::= SEQUENCE {
    timeslotResource                            E-DCH-TimeslotResource,
    powerResource                               E-DCH-PowerResource,
    repetitionPeriod                            RepetitionPeriod,
    repetitionLength                            RepetitionLength,
    tddE-PUCH-Offset                            TddE-PUCH-Offset,
    tdd-ChannelisationCode                      TDD-ChannelisationCode,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-Non-Scheduled-Grant-Info-ExtIEs } }     OPTIONAL,
    ...
}

E-DCH-Non-Scheduled-Grant-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


E-DCH-768-Information ::= SEQUENCE {
    e-PUCH-Information                          E-PUCH-Information,
    e-TFCS-Information-TDD                      E-TFCS-Information-TDD,
    e-DCH-MACdFlows-Information-TDD             E-DCH-MACdFlows-Information-TDD,
    e-DCH-TDD-Information768                    E-DCH-TDD-Information768,
    iE-Extensions                              ProtocolExtensionContainer { { E-DCH-768-Information-ExtIEs} }        OPTIONAL,
    ...
}

E-DCH-768-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

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```
E-DCH-TDD-Information768  ::= SEQUENCE {
    e-DCH-TDD-Maximum-Bitrate768                    E-DCH-TDD-Maximum-Bitrate768                                OPTIONAL,
    e-DCH-Processing-Overload-Level                 E-DCH-Processing-Overload-Level                            OPTIONAL,
    e-DCH-PowerOffset-for-SchedulingInfo            E-DCH-PowerOffset-for-SchedulingInfo                       OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { E-DCH-TDD-Information768-ExtIEs } }   OPTIONAL,
    ...
}

E-DCH-TDD-Information768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-TDD-Maximum-Bitrate768 ::= INTEGER (0..17713,...)

E-DCH-768-Information-Reconfig ::= SEQUENCE {
    e-PUCH-Information                              E-PUCH-Information                                          OPTIONAL,
    e-TFCS-Information-TDD                          E-TFCS-Information-TDD                                      OPTIONAL,
    e-DCH-MACdFlows-to-Add                         E-DCH-MACdFlows-Information-TDD                              OPTIONAL,
    e-DCH-MACdFlows-to-Delete                      EDCH-MACdFlows-To-Delete                                    OPTIONAL,
    e-DCH-Non-Scheduled-Grant-Info768             E-DCH-Non-Scheduled-Grant-Info768                           OPTIONAL,
    e-DCH-TDD-Information768                       E-DCH-TDD-Information768                                     OPTIONAL,
    e-DCH-TDD-Information-to-Modify                E-DCH-TDD-Information-to-Modify                              OPTIONAL,
    iE-Extensions                                  ProtocolExtensionContainer { { E-DCH-768-Information-Reconfig-ExtIEs} }     OPTIONAL,
    ...
}

E-DCH-768-Information-Reconfig-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
E-DCH-768-Information-Response ::= SEQUENCE {
    e-DCH-TDD-MACdFlow-Specific-InformationResp    E-DCH-TDD-MACdFlow-Specific-InformationResp OPTIONAL,
    e-AGCH-Specific-Information-Response768TDD      E-AGCH-Specific-InformationRespList768TDD   OPTIONAL,
    e-HICH-Information-Response768                  E-HICH-InformationResp768   OPTIONAL,
    e-DCH-Non-Scheduled-Grant-Info768              E-DCH-Non-Scheduled-Grant-Info768   OPTIONAL,
    e-RNTI                                         E-RNTI,
    iE-Extensions                                  ProtocolExtensionContainer { { E-DCH-768-Information-Response-ExtIEs } }   OPTIONAL,
    ...
}

E-DCH-768-Information-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-AGCH-Specific-InformationRespList768TDD ::= SEQUENCE (SIZE (1..maxNrOfEAGCHCodes)) OF E-AGCH-Specific-InformationResp-Item768TDD

E-AGCH-Specific-InformationResp-Item768TDD ::= SEQUENCE {
    timeslot                                       TimeSlot,
    midambleShiftAndBurstType768                   MidambleShiftAndBurstType768,
    tDD-ChannelisationCode768                      TDD-ChannelisationCode768,
    iE-Extensions                                  ProtocolExtensionContainer { { E-AGCH-Specific-InformationResp-Item768TDD-ExtIEs } }
    OPTIONAL,
    ...
}
```

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```
E-AGCH-Specific-InformationResp-Item768TDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-HICH-InformationResp768::= SEQUENCE {
    timeslot                                    TimeSlot,
    midambleShiftAndBurstType768                MidambleShiftAndBurstType768,
    tDD-ChannelisationCode768                   TDD-ChannelisationCode768,
    e-HICH-TimeOffset                           E-HICH-TimeOffset,
    iE-Extensions                               ProtocolExtensionContainer { { E-HICH-InformationResp768-ExtIEs } }    OPTIONAL,
    ...
}

E-HICH-InformationResp768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-Non-Scheduled-Grant-Info768  ::= SEQUENCE {
    timeslotResource                            E-DCH-TimeslotResource,
    powerResource                               E-DCH-PowerResource,
    repetitionPeriod                            RepetitionPeriod,
    repetitionLength                            RepetitionLength,
    tddE-PUCH-Offset                            TddE-PUCH-Offset,
    tdd-ChannelisationCode768                   TDD-ChannelisationCode768,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-Non-Scheduled-Grant-Info768-ExtIEs } }    OPTIONAL,
    ...
}

E-DCH-Non-Scheduled-Grant-Info768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-LCR-Information ::= SEQUENCE {
    e-PUCH-LCR-Information                       E-PUCH-LCR-Information,
    e-TFCS-Information-TDD                       E-TFCS-Information-TDD,
    e-DCH-MACdFlows-Information-TDD              E-DCH-MACdFlows-Information-TDD,
    e-DCH-LCR-TDD-Information                    E-DCH-LCR-TDD-Information,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-Information-LCR-ExtIEs} }        OPTIONAL,
    ...
}

E-DCH-Information-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-PUCH-LCR-Information  ::= SEQUENCE {
    minCR                                   CodeRate,
    maxCR                                   CodeRate,
    harqInfo                                HARQ-Info-for-E-DCH,
    pRxdesBase                              E-PUCH-PRXdesBase,
    e-PUCH-TPC-Step-Size                    TDD-TPC-UplinkStepSize-LCR,
    n-E-UCCH-LCR                            N-E-UCCH-LCR,
    iE-Extensions                           ProtocolExtensionContainer { { E-PUCH-Information-LCR-ExtIEs } }      OPTIONAL,
```

```
        ...
}

E-PUCH-Information-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-PUCH-PowerControlGAP      CRITICALITY ignore      EXTENSION ControlGAP      PRESENCE optional      },
    ...
}

E-PUCH-PRXdesBase  ::= INTEGER(-112..-50)
--SETP=1

E-DCH-LCR-TDD-Information  ::= SEQUENCE {
    e-DCH-Physical-Layer-Category-LCR        E-DCH-Physical-Layer-Category-LCR                            OPTIONAL,
    e-DCH-Processing-Overload-Level          E-DCH-Processing-Overload-Level                              OPTIONAL,
    e-DCH-PowerOffset-for-SchedulingInfo     E-DCH-PowerOffset-for-SchedulingInfo                         OPTIONAL,
    iE-Extensions                            ProtocolExtensionContainer { { E-DCH-LCR-TDD-Information-ExtIEs } }   OPTIONAL,
    ...
}

E-DCH-LCR-TDD-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-E-DCH-LCRTDD-PhysicalLayerCategory                   CRITICALITY reject                   EXTENSION Extended-E-DCH-LCRTDD-
PhysicalLayerCategory          PRESENCE optional }|
    -- This IE shall be used if the E-DCH Physical Layer Category has a value larger than 5.
    { ID id-MaximumNumber-Of-Retransmission-For-SchedulingInfo-LCRTDD     CRITICALITY ignore                   EXTENSION MaxNr-Retransmissions-
EDCH                          PRESENCE optional }|
    { ID id-E-DCH-RetransmissionTimer-For-SchedulingInfo-LCRTDD           CRITICALITY ignore                   EXTENSION E-DCH-MACdFlow-
Retransmission-Timer-LCR        PRESENCE optional },
    ...
}

E-DCH-Physical-Layer-Category-LCR ::= INTEGER (1..5)

Extended-E-DCH-LCRTDD-PhysicalLayerCategory ::= INTEGER (6,...)

E-DCH-LCR-Information-Reconfig ::= SEQUENCE {
    e-PUCH-LCR-Information               E-PUCH-LCR-Information                                           OPTIONAL,
    e-TFCS-Information-TDD               E-TFCS-Information-TDD                                           OPTIONAL,
    e-DCH-MACdFlows-to-Add              E-DCH-MACdFlows-Information-TDD                                   OPTIONAL,
    e-DCH-MACdFlows-to-Delete           EDCH-MACdFlows-To-Delete                                         OPTIONAL,
    e-DCH-LCR-TDD-Information            E-DCH-LCR-TDD-Information                                        OPTIONAL,
    e-DCH-TDD-Information-to-Modify      E-DCH-TDD-Information-to-Modify                                  OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { E-DCH-Information-Reconfig-LCR-ExtIEs} }     OPTIONAL,
    ...
}

E-DCH-Information-Reconfig-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-LCR-Information-Response ::= SEQUENCE {
    e-DCH-TDD-MACdFlow-Specific-InformationResp    E-DCH-TDD-MACdFlow-Specific-InformationResp OPTIONAL,
    e-AGCH-Specific-Information-Response-LCR-TDD    E-AGCH-Specific-InformationRespList-LCR-TDD OPTIONAL,
    e-HICH-Specific-Information-Response-LCR        E-HICH-Specific-InformationResp-LCR OPTIONAL,
    e-DCH-Non-Scheduled-Grant-Info-LCR             E-DCH-Non-Scheduled-Grant-Info-LCR  OPTIONAL,
```

```
    e-RNTI                                          E-RNTI  OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { E-DCH-Information-Response-LCR-ExtIEs } }   OPTIONAL,
    ...
}

E-DCH-Information-Response-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-AGCH-Specific-InformationRespList-LCR-TDD ::= SEQUENCE (SIZE (1..maxNrOfEAGCHCodes)) OF E-AGCH-Specific-InformationResp-Item-LCR-TDD

E-AGCH-Specific-InformationResp-Item-LCR-TDD ::= SEQUENCE {
    timeSlotLCR                                     TimeSlotLCR,
    midambleShiftLCR                                MidambleShiftLCR,
    tDD-ChannelisationCode                          TDD-ChannelisationCode,
    iE-Extensions                                   ProtocolExtensionContainer { { E-AGCH-Specific-InformationResp-ItemTDD-LCR-ExtIEs } }
    OPTIONAL,
    ...
}

E-AGCH-Specific-InformationResp-ItemTDD-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-HICH-Specific-InformationResp-LCR::= SEQUENCE {
    e-HICH-Scheduled-InformationResp-LCR           E-HICH-Scheduled-InformationRespList-LCR-TDD                    OPTIONAL,
    e-HICH-non-Scheduled-InformationResp-LCR       E-HICH-InformationResp-LCR                                     OPTIONAL,
    e-HICH-TimeOffset-lcr                          E-HICH-TimeOffset-LCR,
    iE-Extensions                                  ProtocolExtensionContainer { { E-HICH-Specific-InformationResp-LCR-ExtIEs } }    OPTIONAL,
    ...
}

E-HICH-Specific-InformationResp-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


E-HICH-Scheduled-InformationRespList-LCR-TDD ::= SEQUENCE (SIZE (1..maxNrOfEHICHCodes)) OF E-HICH-Scheduled-InformationResp-Item-LCR-TDD

E-HICH-Scheduled-InformationResp-Item-LCR-TDD ::= SEQUENCE {
    e-HICH-EI                          E-HICH-EI,
    e-HICH-Scheduled-InformationResp-LCR           E-HICH-InformationResp-LCR,
    iE-Extensions                                  ProtocolExtensionContainer { { E-HICH-Scheduled-InformationResp-LCR-ExtIEs } }    OPTIONAL,
    ...
}

E-HICH-Scheduled-InformationResp-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


E-HICH-EI ::= INTEGER (0..3)

E-HICH-InformationResp-LCR::= SEQUENCE {
```

```
    timeSlotLCR                                 TimeSlotLCR,
    midambleShiftLCR                            MidambleShiftLCR,
    tDD-ChannelisationCode                      TDD-ChannelisationCode,
    signatureSequenceGroupIndex                 SignatureSequenceGroupIndex,
    iE-Extensions                               ProtocolExtensionContainer { { E-HICH-InformationResp-LCR-ExtIEs } }    OPTIONAL,
    ...
}


E-HICH-InformationResp-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


E-HICH-TimeOffset-LCR ::= INTEGER (4..15)

E-DCH-SubframeNumber-LCR ::= ENUMERATED{s0,s1}

E-DCH-TimeslotResource-LCR ::= BIT STRING (SIZE (5))

E-DCH-Non-Scheduled-Grant-Info-LCR  ::= SEQUENCE {
    timeslotResource-LCR                        E-DCH-TimeslotResource-LCR,
    powerResource                               E-DCH-PowerResource,
    repetitionPeriod                            RepetitionPeriod,
    repetitionLength                            RepetitionLength,
    subframenumber                              E-DCH-SubframeNumber-LCR,
    tddE-PUCH-Offset                            TddE-PUCH-Offset,
    tdd-ChannelisationCode                      TDD-ChannelisationCode,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-Non-Scheduled-Grant-Info-LCR-ExtIEs } }   OPTIONAL,
    ...
}

E-DCH-Non-Scheduled-Grant-Info-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


Enabling-Delay ::= ENUMERATED {v0, v1, v2, v4, v8, v16, v32, v64, v128}
-- Unit radio frame


Ext-Reference-E-TFCI-PO ::= INTEGER(30..31,...)

ExtendedPropagationDelay ::= INTEGER(255..1023)

Extended-RNC-ID                ::= INTEGER (4096..65535)

Extended-Round-Trip-Time-Value ::= INTEGER(32767..103041)
-- See also mapping in [23]

Ext-Max-Bits-MACe-PDU-non-scheduled ::= INTEGER(19983..22978,...)

-- F
```

```
FACH-FlowControlInformation ::= SEQUENCE (SIZE (1..16)) OF FACH-FlowControlInformationItem

FACH-FlowControlInformationItem ::= SEQUENCE {
    fACH-SchedulingPriority          SchedulingPriorityIndicator,
    mAC-c-sh-SDU-Lengths             MAC-c-sh-SDU-LengthList,
    fACH-InitialWindowSize           FACH-InitialWindowSize,
    iE-Extensions                    ProtocolExtensionContainer { {FACH-FlowControlInformationItem-ExtIEs} } OPTIONAL,
    ...
}

FACH-FlowControlInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-InitialWindowSize           ::= INTEGER { unlimited(255) } (0..255)
-- Number of frames MAC-c-sh SDUs.
-- 255 = Unlimited number of FACH data frames

FACH-InformationList ::= SEQUENCE (SIZE(0.. maxNrOfFACHs)) OF FACH-InformationItem

FACH-InformationItem ::= SEQUENCE {
    transportFormatSet               TransportFormatSet,
    iE-Extensions                    ProtocolExtensionContainer { { FACH-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

FACH-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


Fast-Reconfiguration-Mode ::= ENUMERATED {fast,...}
Fast-Reconfiguration-Permission ::= ENUMERATED {allowed,...}

FDD-DCHs-to-Modify               ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF FDD-DCHs-to-ModifyItem

FDD-DCHs-to-ModifyItem ::= SEQUENCE {
    ul-FP-Mode                       UL-FP-Mode      OPTIONAL,
    toAWS                            ToAWS           OPTIONAL,
    toAWE                            ToAWE           OPTIONAL,
    transportBearerRequestIndicator  TransportBearerRequestIndicator,
    dCH-SpecificInformationList      FDD-DCHs-to-ModifySpecificInformationList,
    iE-Extensions                    ProtocolExtensionContainer { {FDD-DCHs-to-ModifyItem-ExtIEs} } OPTIONAL,
    ...
}

FDD-DCHs-to-ModifyItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TnlQos                   CRITICALITY    ignore     EXTENSION   TnlQos  PRESENCE optional },
    ...
}

FDD-DCHs-to-ModifySpecificInformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF FDD-DCHs-to-ModifySpecificItem

FDD-DCHs-to-ModifySpecificItem ::=  SEQUENCE {
```

```
    dCH-ID                           DCH-ID,
    ul-TransportformatSet            TransportFormatSet      OPTIONAL,
    dl-TransportformatSet            TransportFormatSet      OPTIONAL,
    allocationRetentionPriority      AllocationRetentionPriority     OPTIONAL,
    frameHandlingPriority            FrameHandlingPriority      OPTIONAL,
    not-Used-dRACCControl                        NULL        OPTIONAL,
    iE-Extensions                    ProtocolExtensionContainer { {FDD-DCHs-to-ModifySpecificItem-ExtIEs} } OPTIONAL,
    ...
}

FDD-DCHs-to-ModifySpecificItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Guaranteed-Rate-Information     CRITICALITY ignore     EXTENSION Guaranteed-Rate-Information     PRESENCE optional }|
    { ID id-TrafficClass                    CRITICALITY ignore     EXTENSION TrafficClass                    PRESENCE optional }|
    { ID id-Unidirectional-DCH-Indicator    CRITICALITY reject     EXTENSION Unidirectional-DCH-Indicator    PRESENCE optional},
    ...
}

FDD-DL-ChannelisationCodeNumber     ::= INTEGER (0..511)
-- According to the mapping in [27]. The maximum value is equal to the DL spreading factor -1--

FDD-DL-CodeInformation ::= SEQUENCE (SIZE (1..maxNrOfDL-Codes)) OF FDD-DL-CodeInformationItem

FDD-DL-CodeInformationItem ::= SEQUENCE {
    dl-ScramblingCode                                   DL-ScramblingCode,
    fDD-DL-ChannelisationCodeNumber                     FDD-DL-ChannelisationCodeNumber,
    transmission-Gap-Pattern-Sequence-ScramblingCode-Information     Transmission-Gap-Pattern-Sequence-ScramblingCode-Information OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { {FDD-DL-CodeInformationItem-ExtIEs} } OPTIONAL,
    ...
}

FDD-DL-CodeInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

FDD-TPC-DownlinkStepSize ::= ENUMERATED {
    step-size0-5,
    step-size1,
    step-size1-5,
    step-size2,
    ...
}

SchedulingPriorityIndicator            ::= INTEGER { lowest(0), highest(15) } (0..15)

F-DPCH-SlotFormat ::= INTEGER (0..9)

F-DPCH-SlotFormatSupportRequest ::= NULL

FirstRLS-Indicator ::= ENUMERATED {
    first-RLS,
    not-first-RLS
}

FNReportingIndicator ::= ENUMERATED {
```

```
    fN-reporting-required,
    fN-reporting-not-required
}

FPACH-Information ::= SEQUENCE {
    timeSlotLCR                 TimeSlotLCR,
    tDD-ChannelisationCodeLCR   TDD-ChannelisationCodeLCR,
    midambleShiftLCR            MidambleShiftLCR,
    wT                          INTEGER (1..4),
    ...
    }

FrameHandlingPriority           ::= INTEGER { lowest(0), highest(15) } (0..15)

FrameOffset             ::= INTEGER (0..255)
-- Frames

FrequencyBandIndicator      ::= ENUMERATED {
    bandI,
    bandII,
    bandIII,
    bandIV,
    bandV,
    bandVI,
    bandVII,
    bandVIII,
    bandIX,
    bandX,
    bandXI,
    bandXII,
    bandXIII,
    bandXIV,
    bandXV,
    bandXVI,
    bandXVII,
    bandXVIII,
    bandXIX,
    bandXX,
    bandXXI,
    bandXXII,
    ...
}


-- G

GapLength               ::= INTEGER (1..14)
-- Unit Slot

GapDuration             ::= INTEGER (1..144,...)
-- Unit Frame

GA-Cell ::= SEQUENCE (SIZE (1..maxNrOfPoints)) OF
    SEQUENCE {
```

```
        cell-GAIgeographicalCoordinate       GeographicalCoordinate,
        iE-Extensions                  ProtocolExtensionContainer { {GA-Cell-ExtIEs} } OPTIONAL,
        ...
    }

GA-Cell-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GA-CellAdditionalShapes ::= CHOICE {
    pointWithUncertainty                        GA-PointWithUnCertainty,
    pointWithUncertaintyEllipse                 GA-PointWithUnCertaintyEllipse,
    pointWithAltitude                           GA-PointWithAltitude,
    pointWithAltitudeAndUncertaintyEllipsoid    GA-PointWithAltitudeAndUncertaintyEllipsoid,
    ellipsoidArc                                GA-EllipsoidArc,
    ...
    }

GA-AltitudeAndDirection ::= SEQUENCE {
    directionOfAltitude     ENUMERATED {height, depth},
    altitude                INTEGER (0..32767),
    ...
}

GA-EllipsoidArc ::= SEQUENCE {
    geographicalCoordinates     GeographicalCoordinate,
    innerRadius                 INTEGER (0..65535),
    uncertaintyRadius           INTEGER (0..127),
    offsetAngle                 INTEGER (0..179),
    includedAngle               INTEGER (0..179),
    confidence                  INTEGER (0..127),
    iE-Extensions               ProtocolExtensionContainer { { GA-EllipsoidArc-ExtIEs} } OPTIONAL,
    ...
}

GA-EllipsoidArc-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Almanac ::= SEQUENCE{
    ganss-wk-number                 INTEGER(0..255),
    gANSS-AlmanacModel              CHOICE {
        gANSS-keplerianParameters       SEQUENCE {
            t-oa                        INTEGER(0..255),
            iod-a                       INTEGER(0..3),
            gANSS-SatelliteInformationKP    GANSS-SatelliteInformationKP,
            ie-Extensions                   ProtocolExtensionContainer { { GANSS-KeplerianParametersAlm-ExtIEs } } OPTIONAL,
            ...
        },
        ...
    },
    ie-Extensions                   ProtocolExtensionContainer { { GANSS-Almanac-ExtIEs } }                          OPTIONAL,
```

```
    ...
}


GANSS-KeplerianParametersAlm-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {

    ...
}


GANSS-Almanac-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {

    ...
}
GANSS-Clock-Model ::= SEQUENCE (SIZE (1..maxGANSSClockMod)) OF SEQUENCE {
    t-oc                           BIT STRING (SIZE (14)),
    a-i2                           BIT STRING (SIZE (12)),
    a-i1                           BIT STRING (SIZE (18)),
    a-i0                           BIT STRING (SIZE (28)),
    t-gd                           BIT STRING (SIZE (10))                                    OPTIONAL,
    model-id                       INTEGER(0..1,...)                                         OPTIONAL,
    ie-Extensions                  ProtocolExtensionContainer { { GANSS-ClockModelItem-ExtIEs } }   OPTIONAL,
    ...
}


GANSS-ClockModelItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {

    ...
}


GANSS-Common-Data ::= SEQUENCE {
    ganss-Ionospheric-Model        GANSS-Ionospheric-Model                                   OPTIONAL,
    ganss-Rx-Pos                   GANSS-RX-Pos                                              OPTIONAL,
    ie-Extensions                  ProtocolExtensionContainer { { GANSS-Common-Data-ExtIEs } }   OPTIONAL,
    ...
}


GANSS-Common-Data-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {

    ...
}


GANSS-CommonDataInfoReq ::= SEQUENCE {
    ionospheric-Model              BOOLEAN                                                   OPTIONAL,
    ie-Extensions                  ProtocolExtensionContainer { { GANSS-CommonDataInfoReq-ExtIEs } }   OPTIONAL,
    ...
}


GANSS-CommonDataInfoReq-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {

    ...
}


GANSS-Data-Bit-Assistance ::= SEQUENCE {
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```
    ganssTod                        INTEGER (0..59,...),
    dataBitAssistancelist           GANSS-DataBitAssistanceList,
    ie-Extensions                   ProtocolExtensionContainer { { GANSS-Data-Bit-Assistance-ExtIEs } }        OPTIONAL,
    ...
}


GANSS-Data-Bit-Assistance-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-DataBitAssistanceList ::= SEQUENCE (SIZE (1..maxGANSSSat)) OF GANSS-DataBitAssistanceItem

GANSS-DataBitAssistanceItem ::= SEQUENCE {
    satId                   INTEGER(0..63),
    dataBitAssistanceSgnList        GANSS-DataBitAssistanceSgnList,
    ie-Extensions                   ProtocolExtensionContainer { { GANSS-DataBitAssistanceItem-ExtIEs } }        OPTIONAL,
    ...
}


GANSS-DataBitAssistanceItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-DataBitAssistanceSgnList ::= SEQUENCE (SIZE (1..maxSgnType)) OF GANSS-DataBitAssistanceSgnItem

GANSS-DataBitAssistanceSgnItem ::= SEQUENCE {
    ganss-SignalId          GANSS-Signal-ID,
    ganssDataBits           BIT STRING (SIZE (1..1024)),
    ie-Extensions           ProtocolExtensionContainer { { GANSS-DataBitAssistanceSgnItem-ExtIEs } }        OPTIONAL,
    ...
}


GANSS-DataBitAssistanceSgnItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Data-Bit-Assistance-ReqItem ::= SEQUENCE {
    ganssTod                        INTEGER (0..86399),
    ganss-Data-Bit-Assistance-ReqList       GANSS-Data-Bit-Assistance-ReqList,
    iE-Extensions                   ProtocolExtensionContainer { { GANSS-Data-Bit-Assistance-ReqItem-ExtIEs } }  OPTIONAL,
    ...
}

GANSS-Data-Bit-Assistance-ReqItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Data-Bit-Assistance-ReqList ::= SEQUENCE {
    dGANSS-Signal-ID                BIT STRING (SIZE (8)),
    ganss-DataBitInterval           INTEGER(0..15),
    ganss-SatelliteInfo             SEQUENCE (SIZE (1..maxGANSSSat)) OF INTEGER(0..63)                         OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { GANSS-Data-Bit-Assistance-ReqList-ExtIEs } }  OPTIONAL,
```

```
    ...
}

GANSS-Data-Bit-Assistance-ReqList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-GenericDataInfoReqList ::= SEQUENCE (SIZE(1..maxNoGANSS)) OF GANSS-GenericDataInfoReqItem

GANSS-GenericDataInfoReqItem ::= SEQUENCE {
    ganss-Id                                  GANSS-ID                                                      OPTIONAL,
    ganss-Navigation-Model-And-Time-Recovery  BOOLEAN                                                       OPTIONAL,
    ganss-Time-Model-GNSS-GNSS                BIT STRING (SIZE (9))                                         OPTIONAL,
    ganss-UTC-Model                           BOOLEAN                                                       OPTIONAL,
    ganss-Almanac                             BOOLEAN                                                       OPTIONAL,
    ganss-Real-Time-Integrity                 BOOLEAN                                                       OPTIONAL,
    ganss-Data-Bit-Assistance-Req             GANSS-Data-Bit-Assistance-ReqItem                            OPTIONAL,
    ie-Extensions                             ProtocolExtensionContainer { { GANSS-GenericDataInfoReqItem-ExtIEs } }   OPTIONAL,
    ...
}


GANSS-GenericDataInfoReqItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {

    ...
}


GANSS-Generic-Data ::= SEQUENCE (SIZE(1..maxNoGANSS)) OF GANSS-Generic-DataItem

GANSS-Generic-DataItem ::= SEQUENCE {
    ganss-Id                                  GANSS-ID                                                      OPTIONAL,
    dganss-Correction                         DGANSSCorrections                                             OPTIONAL,
    ganss-Navigation-Model-And-Time-Recovery  GANSS-Navigation-Model-And-Time-Recovery                     OPTIONAL,
    ganss-Time-Model                          GANSS-Time-Model                                              OPTIONAL,
    ganss-UTC-TIME                            GANSS-UTC-Model                                               OPTIONAL,
    ganss-Almanac                             GANSS-Almanac                                                 OPTIONAL,
    ganss-Real-Time-Integrity                 GANSS-Real-Time-Integrity                                     OPTIONAL,
    ganss-Data-Bit-Assistance                 GANSS-Data-Bit-Assistance                                     OPTIONAL,
    ie-Extensions                             ProtocolExtensionContainer { { GANSS-Generic-DataItem-ExtIEs } }   OPTIONAL,
    ...
}


GANSS-Generic-DataItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-ID ::= INTEGER(0..7,...)

GANSS-Information ::= SEQUENCE {
    gANSS-CommonDataInfoReq         GANSS-CommonDataInfoReq                                 OPTIONAL,
    gANSS-GenericDataInfoReqList    GANSS-GenericDataInfoReqList                            OPTIONAL,
    ie-Extensions                   ProtocolExtensionContainer { { GANSS-Information-ExtIEs } }   OPTIONAL,
    ...
```

```
}


GANSS-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Ionospheric-Model ::= SEQUENCE {
    alpha-zero-ionos                    BIT STRING (SIZE (12)),
    alpha-one-ionos                     BIT STRING (SIZE (12)),
    alpha-two-ionos                     BIT STRING (SIZE (12)),
    gANSS-IonosphereRegionalStormFlags  GANSS-IonosphereRegionalStormFlags                    OPTIONAL,
    ie-Extensions                       ProtocolExtensionContainer { { GANSS-Ionospheric-Model-ExtIEs } }        OPTIONAL,
    ...
}


GANSS-Ionospheric-Model-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-IonosphereRegionalStormFlags ::= SEQUENCE {
    storm-flag-one                  BOOLEAN,
    storm-flag-two                  BOOLEAN,
    storm-flag-three                BOOLEAN,
    storm-flag-four                 BOOLEAN,
    storm-flag-five                 BOOLEAN,
    ie-Extensions                   ProtocolExtensionContainer { { GANSS-IonosphereRegionalStormFlags-ExtIEs } } OPTIONAL,
    ...
}


GANSS-IonosphereRegionalStormFlags-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Navigation-Model-And-Time-Recovery ::= SEQUENCE {
    ganss-Transmission-Time     GANSS-Transmission-Time,
    non-broadcastIndication     ENUMERATED{true}         OPTIONAL,
    ganssSatInfoNav             GANSS-Sat-Info-Nav,
    ie-Extensions               ProtocolExtensionContainer { { GANSS-Navigation-Model-And-Time-Recovery-ExtIEs } } OPTIONAL,
    ...
}

GANSS-Navigation-Model-And-Time-Recovery-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Orbit-Model ::= CHOICE {
    gANSS-keplerianParameters           SEQUENCE {
        toe-nav                         BIT STRING (SIZE (14)),
        ganss-omega-nav                 BIT STRING (SIZE (32)),
```

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```
        delta-n-nav                         BIT STRING (SIZE (16)),
        m-zero-nav                          BIT STRING (SIZE (32)),
        omegadot-nav                        BIT STRING (SIZE (24)),
        ganss-e-nav                         BIT STRING (SIZE (32)),
        idot-nav                            BIT STRING (SIZE (14)),
        a-sqrt-nav                          BIT STRING (SIZE (32)),
        i-zero-nav                          BIT STRING (SIZE (32)),
        omega-zero-nav                      BIT STRING (SIZE (32)),
        c-rs-nav                            BIT STRING (SIZE (16)),
        c-is-nav                            BIT STRING (SIZE (16)),
        c-us-nav                            BIT STRING (SIZE (16)),
        c-rc-nav                            BIT STRING (SIZE (16)),
        c-ic-nav                            BIT STRING (SIZE (16)),
        c-uc-nav                            BIT STRING (SIZE (16)),
        ie-Extensions                       ProtocolExtensionContainer { { GANSS-KeplerianParametersOrb-ExtIEs } }   OPTIONAL,
        ...
    },
    ...
}


GANSS-KeplerianParametersOrb-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


GANSS-Real-Time-Integrity ::= SEQUENCE (SIZE (1..maxGANSSSat)) OF SEQUENCE {
    bad-ganss-satId                 INTEGER(0..63),
    bad-ganss-signalId              BIT STRING(SIZE(8))                                              OPTIONAL,
    ie-Extensions                   ProtocolExtensionContainer { { GANSS-RealTimeInformationItem-ExtIEs } }   OPTIONAL,
    ...
}


GANSS-RealTimeInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-RX-Pos ::= SEQUENCE {
    latitudeSign          ENUMERATED{north,south},
    degreesOfLatitude     INTEGER(0..2147483647),
    degreesOfLongitude    INTEGER(-2147483648..2147483647),
    directionOfAltitude   ENUMERATED{height,depth},
    altitude              INTEGER(0..32767),
    ie-Extensions         ProtocolExtensionContainer { { GANSS-RX-Pos-ExtIEs } }  OPTIONAL,
    ...
}

GANSS-RX-Pos-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

GANSS-SatelliteInformationKP ::= SEQUENCE (SIZE (1..maxGANSSSatAlmanac)) OF SEQUENCE {
    satId                           INTEGER(0..63),
    ganss-e-alm                     BIT STRING (SIZE (11)),
    ganss-delta-I-alm               BIT STRING (SIZE (11)),
    ganss-omegadot-alm              BIT STRING (SIZE (11)),
    ganss-svhealth-alm              BIT STRING (SIZE (4)),
    ganss-delta-a-sqrt-alm          BIT STRING (SIZE (17)),
    ganss-omegazero-alm             BIT STRING (SIZE (16)),
    ganss-m-zero-alm                BIT STRING (SIZE (16)),
    ganss-omega-alm                 BIT STRING (SIZE (16)),
    ganss-af-zero-alm               BIT STRING (SIZE (14)),
    ganss-af-one-alm                BIT STRING (SIZE (11)),
    ie-Extensions                   ProtocolExtensionContainer { { GANSS-SatelliteInformationKPItem-ExtIEs } } OPTIONAL,
    ...
}


GANSS-SatelliteInformationKPItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Sat-Info-Nav ::= SEQUENCE (SIZE(1..maxGANSSSat)) OF SEQUENCE {
    satId                   INTEGER(0..63),
    svHealth                BIT STRING (SIZE(5)),
    iod                     BIT STRING (SIZE(10)),
    ganssClockModel         GANSS-Clock-Model,
    ganssOrbitModel         GANSS-Orbit-Model,
    ie-Extensions           ProtocolExtensionContainer { { GANSS-Sat-Info-Nav-ExtIEs } } OPTIONAL,
    ...
}


GANSS-Sat-Info-Nav-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Signal-ID ::= INTEGER(0..7,...)

GANSS-StatusHealth ::= ENUMERATED {
    udre-scale-1dot0,
    udre-scale-0dot75,
    udre-scale-0dot5,
    udre-scale-0dot3,
    udre-scale-0dot2,
    udre-scale-0dot1,
    no-data,
    invalid-data
}


GANSS-Time-Model ::= SEQUENCE {
```

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    ganss-time-model-Ref-Time          INTEGER(0..37799),
    ganss-t-a0                         INTEGER(-2147483648..2147483647),
    ganss-t-a1                         INTEGER(-8388608..8388607)                          OPTIONAL,
    ganss-t-a2                         INTEGER(-64..63)                                    OPTIONAL,
    gnss-to-id                         ENUMERATED{gps,...},
    ganss-wk-number                    INTEGER(0..8191)                                    OPTIONAL,
    ie-Extensions                      ProtocolExtensionContainer { { GANSS-Time-Model-ExtIEs } }   OPTIONAL,
    ...
}


GANSS-Time-Model-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Transmission-Time ::= SEQUENCE {
    ganssDay                INTEGER(0..8191)                                               OPTIONAL,
    ganssTod                INTEGER(0..86399),
    ie-Extensions           ProtocolExtensionContainer { { GANSS-Transmission-Time-ExtIEs } }   OPTIONAL,
    ...
}


GANSS-Transmission-Time-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-UTC-Model ::= SEQUENCE {
    a-one-utc                          BIT STRING (SIZE (24)),
    a-zero-utc                         BIT STRING (SIZE (32)),
    t-ot-utc                           BIT STRING (SIZE (8)),
    w-n-t-utc                          BIT STRING (SIZE (8)),
    delta-t-ls-utc                     BIT STRING (SIZE (8)),
    w-n-lsf-utc                        BIT STRING (SIZE (8)),
    dn-utc                             BIT STRING (SIZE (8)),
    delta-t-lsf-utc                    BIT STRING (SIZE (8)),
    ie-Extensions                      ProtocolExtensionContainer { { GANSS-UTC-Model-ExtIEs } }   OPTIONAL,
    ...
}


GANSS-UTC-Model-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}



GA-PointWithAltitude ::= SEQUENCE {
    geographicalCoordinates   GeographicalCoordinate,
    altitudeAndDirection      GA-AltitudeAndDirection,
    iE-Extensions             ProtocolExtensionContainer { { GA-PointWithAltitude-ExtIEs} } OPTIONAL,
    ...
}
```

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```
GA-PointWithAltitude-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GA-PointWithAltitudeAndUncertaintyEllipsoid ::= SEQUENCE {
    geographicalCoordinates     GeographicalCoordinate,
    altitudeAndDirection        GA-AltitudeAndDirection,
    uncertaintyEllipse          GA-UncertaintyEllipse,
    uncertaintyAltitude         INTEGER (0..127),
    confidence                  INTEGER (0..127),
    iE-Extensions               ProtocolExtensionContainer { { GA-PointWithAltitudeAndUncertaintyEllipsoid-ExtIEs} } OPTIONAL,
    ...
}

GA-PointWithAltitudeAndUncertaintyEllipsoid-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GA-PointWithUnCertaintyEllipse ::= SEQUENCE {
    geographicalCoordinates     GeographicalCoordinate,
    uncertaintyEllipse          GA-UncertaintyEllipse,
    confidence                  INTEGER (0..127),
    iE-Extensions               ProtocolExtensionContainer { { GA-PointWithUnCertaintyEllipse-ExtIEs} } OPTIONAL,
    ...
}

GA-PointWithUnCertaintyEllipse-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GA-UncertaintyEllipse ::= SEQUENCE {
    uncertaintySemi-major       INTEGER (0..127),
    uncertaintySemi-minor       INTEGER (0..127),
    orientationOfMajorAxis      INTEGER (0..179),   -- The values 90..179 shall not be used.
    ...
}

GA-PointWithUnCertainty ::=SEQUENCE {
    geographicalCoordinates     GeographicalCoordinate,
    uncertaintyCode         INTEGER (0..127),
    iE-Extensions               ProtocolExtensionContainer { {GA-PointWithUnCertainty-ExtIEs} } OPTIONAL,
    ...
}

GA-PointWithUnCertainty-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GA-AccessPointPosition ::= SEQUENCE {
    geographicalCoordinate      GeographicalCoordinate,
    iE-Extensions           ProtocolExtensionContainer { {GA-AccessPoint-ExtIEs} } OPTIONAL,
    ...
}
```

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```
GA-AccessPoint-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GeographicalCoordinate ::= SEQUENCE {
    latitudeSign         ENUMERATED { north, south },
    latitude             INTEGER (0..8388607),
    longitude            INTEGER (-8388608..8388607),
    iE-Extensions        ProtocolExtensionContainer { {GeographicalCoordinate-ExtIEs} } OPTIONAL,
    ...
}

GeographicalCoordinate-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GERAN-Cell-Capability ::=   BIT STRING (SIZE (16))
-- First bit:  A/Gb mode --
-- Second bit: Iu mode    --
-- Note: undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver. --

GERAN-Classmark ::=         OCTET STRING
    -- GERAN Classmark as defined in (38) --

GERAN-SI-Type ::= CHOICE {
    sI                       GERAN-SystemInfo,
    pSI                      GERAN-SystemInfo,
    ...
}

GERAN-SystemInfo ::= SEQUENCE (SIZE (1..maxNrOfGERANSI)) OF
        SEQUENCE {
            gERAN-SI-block    OCTET STRING (SIZE (1..23)),
            iE-Extensions     ProtocolExtensionContainer { { GERAN-SystemInfo-ExtIEs } }    OPTIONAL,
            ...
}

GERAN-SystemInfo-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GenericTrafficCategory  ::= BIT STRING (SIZE (8))

GPS-Almanac ::= SEQUENCE {
    wn_a-alm                     BIT STRING (SIZE (8)),
    satellite-Almanac-Information      SEQUENCE (SIZE (1..maxNoSat)) OF
        SEQUENCE {
            dATA-ID           DATA-ID,
            sAT-ID            SAT-ID,
            gps-e-alm         BIT STRING (SIZE (16)),
            gps-toa-alm       BIT STRING (SIZE (8)),
            gps-delta-I-alm   BIT STRING (SIZE (16)),
            omegadot-alm      BIT STRING (SIZE (16)),
```

```
            svhealth-alm        BIT STRING (SIZE (8)),
            gps-a-sqrt-alm      BIT STRING (SIZE (24)),
            omegazero-alm       BIT STRING (SIZE (24)),
            m-zero-alm          BIT STRING (SIZE (24)),
            gps-omega-alm       BIT STRING (SIZE (24)),
            gps-af-zero-alm     BIT STRING (SIZE (11)),
            gps-af-one-alm      BIT STRING (SIZE (11)),
            iE-Extensions       ProtocolExtensionContainer { { Satellite-Almanac-Information-ExtIEs} }    OPTIONAL,
            ...
        },
    -- This GPS-Almanac-Information is for the 1st 16 satellites
    sVGlobalHealth-alm      BIT STRING (SIZE (364))     OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { { GPS-Almanac-ExtIEs} }       OPTIONAL,
    ...
}

Satellite-Almanac-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GPS-Almanac-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {  ID id-Satellite-Almanac-Information-ExtItem CRITICALITY ignore     EXTENSION   Satellite-Almanac-Information-ExtItem        PRESENCE
    optional},
    ...
}

Satellite-Almanac-Information-ExtItem ::= SEQUENCE (SIZE (1..maxNrOfSatAlmanac-maxNoSat)) OF
        SEQUENCE {
            dATA-ID             DATA-ID,
            sAT-ID              SAT-ID,
            gps-e-alm           BIT STRING (SIZE (16)),
            gps-toa-alm         BIT STRING (SIZE (8)),
            gps-delta-I-alm     BIT STRING (SIZE (16)),
            omegadot-alm        BIT STRING (SIZE (16)),
            svhealth-alm        BIT STRING (SIZE (8)),
            gps-a-sqrt-alm      BIT STRING (SIZE (24)),
            omegazero-alm       BIT STRING (SIZE (24)),
            m-zero-alm          BIT STRING (SIZE (24)),
            gps-omega-alm       BIT STRING (SIZE (24)),
            gps-af-zero-alm     BIT STRING (SIZE (11)),
            gps-af-one-alm      BIT STRING (SIZE (11)),
            iE-Extensions       ProtocolExtensionContainer { { Satellite-Almanac-Information-ExtItemIEs} }    OPTIONAL,
            ...
        }
-- Includes the GPS-Almanac-Information for the 17th through 32nd satellites.

Satellite-Almanac-Information-ExtItemIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GPSInformation ::= SEQUENCE (SIZE (1..maxNoGPSTypes)) OF
    SEQUENCE {
        gPSInformationItem      ENUMERATED {
            gPS-NavigationModel-and-TimeRecovery,
```

```
            gPS-Ionospheric-Model,
            gPS-UTC-Model,
            gPS-Almanac,
            gPS-RealTime-Integrity,
            ...
        },
        iE-Extensions              ProtocolExtensionContainer { { GPSInformation-ExtIEs} }     OPTIONAL,
        ...
    }
-- This IE shall be present if the Information Type IE indicates 'GPS Information'

GPSInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GPS-Ionospheric-Model ::= SEQUENCE {
    alpha-zero-ionos        BIT STRING (SIZE (8)),
    alpha-one-ionos         BIT STRING (SIZE (8)),
    alpha-two-ionos         BIT STRING (SIZE (8)),
    alpha-three-ionos       BIT STRING (SIZE (8)),
    beta-zero-ionos         BIT STRING (SIZE (8)),
    beta-one-ionos          BIT STRING (SIZE (8)),
    beta-two-ionos          BIT STRING (SIZE (8)),
    beta-three-ionos        BIT STRING (SIZE (8)),
    iE-Extensions           ProtocolExtensionContainer { { GPS-Ionospheric-Model-ExtIEs} }     OPTIONAL,
    ...
}

GPS-Ionospheric-Model-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GPS-NavigationModel-and-TimeRecovery ::= SEQUENCE (SIZE (1..maxNoSat)) OF
    SEQUENCE {
        tx-tow-nav                     INTEGER (0..1048575),
        sAT-ID                         SAT-ID,
        tlm-message-nav                BIT STRING (SIZE (14)),
        tlm-revd-c-nav                 BIT STRING (SIZE (2)),
        ho-word-nav                    BIT STRING (SIZE (22)),
        w-n-nav                        BIT STRING (SIZE (10)),
        ca-or-p-on-l2-nav              BIT STRING (SIZE (2)),
        user-range-accuracy-index-nav  BIT STRING (SIZE (4)),
        sv-health-nav                  BIT STRING (SIZE (6)),
        iodc-nav                       BIT STRING (SIZE (10)),
        l2-p-dataflag-nav              BIT STRING (SIZE (1)),
        sf1-reserved-nav               BIT STRING (SIZE (87)),
        t-gd-nav                       BIT STRING (SIZE (8)),
        t-oc-nav                       BIT STRING (SIZE (16)),
        a-f-2-nav                      BIT STRING (SIZE (8)),
        a-f-1-nav                      BIT STRING (SIZE (16)),
        a-f-zero-nav                   BIT STRING (SIZE (22)),
        c-rs-nav                       BIT STRING (SIZE (16)),
        delta-n-nav                    BIT STRING (SIZE (16)),
        m-zero-nav                     BIT STRING (SIZE (32)),
```

```
        c-uc-nav                        BIT STRING (SIZE (16)),
        gps-e-nav                       BIT STRING (SIZE (32)),
        c-us-nav                        BIT STRING (SIZE (16)),
        a-sqrt-nav                      BIT STRING (SIZE (32)),
        t-oe-nav                        BIT STRING (SIZE (16)),
        fit-interval-flag-nav           BIT STRING (SIZE (1)),
        aodo-nav                        BIT STRING (SIZE (5)),
        c-ic-nav                        BIT STRING (SIZE (16)),
        omega-zero-nav                  BIT STRING (SIZE (32)),
        c-is-nav                        BIT STRING (SIZE (16)),
        i-zero-nav                      BIT STRING (SIZE (32)),
        c-rc-nav                        BIT STRING (SIZE (16)),
        gps-omega-nav                   BIT STRING (SIZE (32)),
        omegadot-nav                    BIT STRING (SIZE (24)),
        idot-nav                        BIT STRING (SIZE (14)),
        spare-zero-fill                 BIT STRING (SIZE (20)),
        iE-Extensions                   ProtocolExtensionContainer { { GPS-NavigationModel-and-TimeRecoveryItem-ExtIEs} }   OPTIONAL,
        ...
    }

GPS-NavigationModel-and-TimeRecoveryItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GPS-RealTime-Integrity ::= CHOICE {
    badSatellites           BadSatellites,
    noBadSatellite          NULL
}

GPS-RX-POS ::= SEQUENCE {
    geographicalCoordinate  GeographicalCoordinate,
    altitudeAndDirection    GA-AltitudeAndDirection,
    iE-Extensions           ProtocolExtensionContainer { { GPS-RX-POS-ExtIEs} } OPTIONAL,
    ...
}

GPS-RX-POS-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GPS-Status-Health ::= ENUMERATED {
    udre-1-0,
    udre-0-75,
    udre-0-5,
    udre-0-3,
    udre-0-1,
    no-data,
    invalid-data
}

GPSTOW ::= INTEGER (0..604799)

GPS-UTC-Model ::= SEQUENCE {
    a-one-utc               BIT STRING (SIZE (24)),
```

```
    a-zero-utc              BIT STRING (SIZE (32)),
    t-ot-utc                BIT STRING (SIZE (8)),
    delta-t-ls-utc          BIT STRING (SIZE (8)),
    w-n-t-utc               BIT STRING (SIZE (8)),
    w-n-lsf-utc             BIT STRING (SIZE (8)),
    dn-utc                  BIT STRING (SIZE (8)),
    delta-t-lsf-utc         BIT STRING (SIZE (8)),
    iE-Extensions           ProtocolExtensionContainer { { GPS-UTC-Model-ExtIEs} }     OPTIONAL,
    ...
}

GPS-UTC-Model-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Guaranteed-Rate-Information ::= SEQUENCE {
    guaranteed-UL-Rate      Guaranteed-Rate OPTIONAL,
    guaranteed-DL-Rate      Guaranteed-Rate OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { {Guaranteed-Rate-Information-ExtIEs} } OPTIONAL,
    ...
}

Guaranteed-Rate-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Guaranteed-Rate         ::= INTEGER (1..maxNrOfTFs)
-- "1": TFI 0, "2": TFI 1, "3": TFI 2, ...


-- H

HARQ-Info-for-E-DCH ::= ENUMERATED {
    rv0,
    rvtable
}

HARQ-MemoryPartitioning ::= CHOICE {
    implicit        HARQ-MemoryPartitioning-Implicit,
    explicit        HARQ-MemoryPartitioning-Explicit,
    ...
    }

HARQ-MemoryPartitioning-Implicit    ::= SEQUENCE {
    number-of-Processes         INTEGER (1..8,...,12|14|16),
    iE-Extensions               ProtocolExtensionContainer { { HARQ-MemoryPartitioning-Implicit-ExtIEs } }     OPTIONAL,
    ...
}

HARQ-MemoryPartitioning-Implicit-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HARQ-MemoryPartitioning-Explicit    ::= SEQUENCE {
    hARQ-MemoryPartitioningList       HARQ-MemoryPartitioningList,
```

```
    iE-Extensions                        ProtocolExtensionContainer { { HARQ-MemoryPartitioning-Explicit-ExtIEs } }        OPTIONAL,
    ...
}

HARQ-MemoryPartitioning-Explicit-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-HARQ-MemoryPartitioningInfoExtForMIMO    CRITICALITY ignore  EXTENSION HARQ-MemoryPartitioningInfoExtForMIMO  PRESENCE optional},
    ...
}

HARQ-MemoryPartitioningList ::= SEQUENCE (SIZE (1..maxNrOfHARQProc)) OF HARQ-MemoryPartitioningItem

HARQ-MemoryPartitioningInfoExtForMIMO ::= SEQUENCE (SIZE (4|6|8)) OF HARQ-MemoryPartitioningItem

HARQ-MemoryPartitioningItem ::= SEQUENCE {
    process-Memory-Size                  ENUMERATED {
                                         hms800, hms1600, hms2400, hms3200, hms4000,
                                         hms4800, hms5600, hms6400, hms7200, hms8000,
                                         hms8800, hms9600, hms10400, hms11200, hms12000,
                                         hms12800, hms13600, hms14400, hms15200, hms16000,
                                         hms17600, hms19200, hms20800, hms22400, hms24000,
                                         hms25600, hms27200, hms28800, hms30400, hms32000,
                                         hms36000, hms40000, hms44000, hms48000, hms52000,
                                         hms56000, hms60000, hms64000, hms68000, hms72000,
                                         hms76000, hms80000, hms88000, hms96000, hms104000,
                                         hms112000, hms120000, hms128000, hms136000, hms144000,
                                         hms152000, hms160000, hms176000, hms192000, hms208000,
                                         hms224000, hms240000, hms256000, hms272000, hms288000,
                                         hms304000,...},
    iE-Extensions                        ProtocolExtensionContainer { { HARQ-MemoryPartitioningItem-ExtIEs } }      OPTIONAL,
    ...
}

HARQ-MemoryPartitioningItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HARQ-Preamble-Mode ::= ENUMERATED {
   mode0,
   mode1
}

HARQ-Process-Allocation-2ms-EDCH ::= BIT STRING ( SIZE(maxNrOfEDCHHARQProcesses2msEDCH) )

HARQ-Preamble-Mode-Activation-Indicator ::=ENUMERATED   {
    harqPreambleModeSupported
}

HCS-Prio    ::= INTEGER (0..7)
-- 0 = lowest priority, ...7 = highest priority

HSDSCH-Configured-Indicator ::= ENUMERATED {
    configured-HS-DSCH,
    no-configured-HS-DSCH
}
```

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```
HSDSCH-FDD-Information ::= SEQUENCE {
    hSDSCH-MACdFlows-Information             HSDSCH-MACdFlows-Information,
    uE-Capabilities-Info                    UE-Capabilities-Info,
    mAChs-Reordering-Buffer-Size-for-RLC-UM MAChsReorderingBufferSize-for-RLC-UM,
    cqiFeedback-CycleK                      CQI-Feedback-Cycle,
    cqiRepetitionFactor                     CQI-RepetitionFactor                        OPTIONAL,
    -- This IE shall be present if the CQI Feedback Cycle k IE is set to a value greater than 0.
    ackNackRepetitionFactor                 AckNack-RepetitionFactor,
    cqiPowerOffset                          CQI-Power-Offset,
    ackPowerOffset                          Ack-Power-Offset,
    nackPowerOffset                         Nack-Power-Offset,
    hsscch-PowerOffset                      HSSCCH-PowerOffset                          OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { HSDSCH-FDD-Information-ExtIEs } }    OPTIONAL,
    ...
}

HSDSCH-FDD-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-HARQ-Preamble-Mode                 CRITICALITY ignore    EXTENSION   HARQ-Preamble-Mode                  PRESENCE optional}|
{ ID id-MIMO-ActivationIndicator           CRITICALITY reject    EXTENSION   MIMO-ActivationIndicator            PRESENCE optional}|
{ ID id-HSDSCH-MACdPDUSizeFormat           CRITICALITY reject    EXTENSION   HSDSCH-MACdPDUSizeFormat            PRESENCE optional}|
{ ID id-SixtyfourQAM-UsageAllowedIndicator CRITICALITY ignore    EXTENSION   SixtyfourQAM-UsageAllowedIndicator PRESENCE optional},
    ...
}

HSDSCH-FDD-Information-Response ::= SEQUENCE {
    hSDSCH-MACdFlow-Specific-InfoList-Response    HSDSCH-MACdFlow-Specific-InfoList-Response                          OPTIONAL,
    hSSCCH-Specific-InfoList-Response             HSSCCH-FDD-Specific-InfoList-Response                               OPTIONAL,
    hSPDSCH-and-HSSCCH-ScramblingCode             DL-ScramblingCode                                          OPTIONAL,
    measurement-Power-Offset                      Measurement-Power-Offset                                           OPTIONAL,
    hARQ-MemoryPartitioning                       HARQ-MemoryPartitioning                                            OPTIONAL,
    iE-Extensions                                 ProtocolExtensionContainer { { HSDSCH-FDD-Information-Response-ExtIEs } }    OPTIONAL,
    ...
}

HSDSCH-FDD-Information-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-User-Plane-Congestion-Fields-Inclusion    CRITICALITY ignore  EXTENSION User-Plane-Congestion-Fields-Inclusion     PRESENCE optional}|
{ ID id-HARQ-Preamble-Mode-Activation-Indicator   CRITICALITY ignore  EXTENSION HARQ-Preamble-Mode-Activation-Indicator    PRESENCE optional}|
{ ID id-MIMO-InformationResponse                  CRITICALITY ignore  EXTENSION MIMO-InformationResponse                   PRESENCE optional}|
{ ID id-SixtyfourQAM-DL-UsageIndicator            CRITICALITY ignore  EXTENSION SixtyfourQAM-DL-UsageIndicator             PRESENCE optional}|
{ ID id-HSDSCH-TBSizeTableIndicator               CRITICALITY ignore  EXTENSION HSDSCH-TBSizeTableIndicator                PRESENCE optional},
    ...
}

HSDSCH-Information-to-Modify ::= SEQUENCE {
    hSDSCH-MACdFlow-Specific-InfoList-to-Modify    HSDSCH-MACdFlow-Specific-InfoList-to-Modify    OPTIONAL,
    priorityQueue-Info-to-Modify                   PriorityQueue-InfoList-to-Modify               OPTIONAL,
    mAChs-Reordering-Buffer-Size-for-RLC-UM        MAChsReorderingBufferSize-for-RLC-UM           OPTIONAL,
    cqiFeedback-CycleK                             CQI-Feedback-Cycle                             OPTIONAL,   -- For FDD only
    cqiRepetitionFactor                            CQI-RepetitionFactor                           OPTIONAL,   -- For FDD only
    ackNackRepetitionFactor                        AckNack-RepetitionFactor                       OPTIONAL,   -- For FDD only
    cqiPowerOffset                                 CQI-Power-Offset                               OPTIONAL,   -- For FDD only
    ackPowerOffset                                 Ack-Power-Offset                               OPTIONAL,   -- For FDD only
    nackPowerOffset                                Nack-Power-Offset                              OPTIONAL,   -- For FDD only
```

```
    hsscch-PowerOffset                              HSSCCH-PowerOffset                                OPTIONAL,   -- For FDD only
    hSSCCH-CodeChangeGrant                          HSSCCH-Code-Change-Grant                          OPTIONAL,
    tDDAckNackPowerOffset                           TDD-AckNack-Power-Offset                          OPTIONAL,   -- For TDD only
    iE-Extensions                                   ProtocolExtensionContainer { { HSDSCH-Information-to-Modify-ExtIEs } }         OPTIONAL,
    ...
}

HSDSCH-Information-to-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-HARQ-Preamble-Mode                CRITICALITY ignore      EXTENSION    HARQ-Preamble-Mode                       PRESENCE optional}|
{ ID id-HS-PDSCH-Code-Change-Grant        CRITICALITY ignore      EXTENSION    HS-PDSCH-Code-Change-Grant              PRESENCE optional}|
    -- Applicable to FDD only
{ ID id-MIMO-Mode-Indicator               CRITICALITY reject      EXTENSION    MIMO-Mode-Indicator                     PRESENCE optional}|
{ ID id-HSDSCH-MACdPDUSizeFormat          CRITICALITY reject      EXTENSION    HSDSCH-MACdPDUSizeFormat                PRESENCE optional}|
{ ID id-SixtyfourQAM-UsageAllowedIndicator CRITICALITY ignore     EXTENSION    SixtyfourQAM-UsageAllowedIndicator PRESENCE optional}|
{ ID id-UE-Capabilities-Info              CRITICALITY ignore      EXTENSION    UE-Capabilities-Info                    PRESENCE optional},
    ...
}

HSDSCH-Information-to-Modify-Unsynchronised ::= SEQUENCE {
    hSDSCH-MACdFlow-Specific-InfoList-to-Modify     HSDSCH-MACdFlow-Specific-InfoList-to-Modify          OPTIONAL,
    priorityQueueInfotoModifyUnsynchronised         PriorityQueue-InfoList-to-Modify-Unsynchronised             OPTIONAL,
    cqiPowerOffset                                  CQI-Power-Offset                 OPTIONAL,   -- For FDD only
    ackPowerOffset                                  Ack-Power-Offset                 OPTIONAL,   -- For FDD only
    nackPowerOffset                                 Nack-Power-Offset                OPTIONAL,   -- For FDD only
    hsscch-PowerOffset                              HSSCCH-PowerOffset               OPTIONAL,   -- Only for FDD
    tDDAckNackPowerOffset                           TDD-AckNack-Power-Offset         OPTIONAL,   -- For TDD only
    iE-Extensions                                   ProtocolExtensionContainer { { HSDSCH-Information-to-Modify-Unsynchronised-ExtIEs } }
    OPTIONAL,
    ...
}

HSDSCH-Information-to-Modify-Unsynchronised-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-HARQ-Preamble-Mode                CRITICALITY ignore      EXTENSION    HARQ-Preamble-Mode                       PRESENCE optional}|
{ ID id-MIMO-Mode-Indicator               CRITICALITY reject      EXTENSION    MIMO-Mode-Indicator                     PRESENCE optional}|
{ ID id-SixtyfourQAM-UsageAllowedIndicator CRITICALITY ignore     EXTENSION    SixtyfourQAM-UsageAllowedIndicator PRESENCE optional},
    ...
}

HSDSCH-MACdFlow-ID ::= INTEGER (0..maxNrOfMACdFlows-1)

HSDSCH-MACdFlow-Specific-InfoList ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InfoItem

HSDSCH-MACdPDUSizeFormat ::= ENUMERATED {
    indexedMACdPDU-Size,
    flexibleMACdPDU-Size
}

HSDSCH-MACdFlow-Specific-InfoItem ::= SEQUENCE {
    hSDSCH-MACdFlow-ID            HSDSCH-MACdFlow-ID,
    allocationRetentionPriority  AllocationRetentionPriority,
    trafficClass                 TrafficClass,
    bindingID                    BindingID                          OPTIONAL,
    transportLayerAddress        TransportLayerAddress              OPTIONAL,
    iE-Extensions                ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InfoItem-ExtIEs } }       OPTIONAL,
```

```
    ...
}

HSDSCH-MACdFlow-Specific-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-TnlQos            CRITICALITY ignore      EXTENSION   TnlQos  PRESENCE optional }|
    {ID id-TrCH-SrcStatisticsDescr  CRITICALITY ignore  EXTENSION   TrCH-SrcStatisticsDescr PRESENCE optional },
    ...
}

HSDSCH-MACdFlow-Specific-InfoList-Response ::= SEQUENCE (SIZE (0..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InfoItem-Response

HSDSCH-MACdFlow-Specific-InfoItem-Response ::= SEQUENCE {
    hSDSCH-MACdFlow-ID                  HSDSCH-MACdFlow-ID,
    bindingID                           BindingID                               OPTIONAL,
    transportLayerAddress               TransportLayerAddress                   OPTIONAL,
    hSDSCH-Initial-Capacity-Allocation  HSDSCH-Initial-Capacity-Allocation      OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InfoItem-Response-ExtIEs } }      OPTIONAL,
    ...
}

HSDSCH-MACdFlow-Specific-InfoItem-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSDSCH-MACdFlow-Specific-InfoList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InfoItem-to-Modify

HSDSCH-MACdFlow-Specific-InfoItem-to-Modify ::= SEQUENCE {
    hSDSCH-MACdFlow-ID                  HSDSCH-MACdFlow-ID,
    allocationRetentionPriority         AllocationRetentionPriority             OPTIONAL,
    transportBearerRequestIndicator     TransportBearerRequestIndicator,
    trafficClass                        TrafficClass                            OPTIONAL,
    bindingID                           BindingID                               OPTIONAL,
    transportLayerAddress               TransportLayerAddress                   OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InfoItem-to-Modify-ExtIEs } }        OPTIONAL,
    ...
}

HSDSCH-MACdFlow-Specific-InfoItem-to-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-TnlQos            CRITICALITY ignore      EXTENSION   TnlQos  PRESENCE optional },
    ...
}

HSDSCH-MACdFlows-Information ::= SEQUENCE {
    hSDSCH-MACdFlow-Specific-Info                HSDSCH-MACdFlow-Specific-InfoList,
    priorityQueue-Info                           PriorityQueue-InfoList,
    iE-Extensions                                ProtocolExtensionContainer { { HSDSCH-MACdFlows-Information-ExtIEs } }        OPTIONAL,
    ...
}


HSDSCH-MACdFlows-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
HSDSCH-MACdFlows-to-Delete ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlows-to-Delete-Item


HSDSCH-MACdFlows-to-Delete-Item ::= SEQUENCE {
    hsDSCH-MACdFlow-ID                 HSDSCH-MACdFlow-ID,
    iE-Extensions                      ProtocolExtensionContainer { { HSDSCH-MACdFlows-to-Delete-Item-ExtIEs} }      OPTIONAL,
    ...
}


HSDSCH-MACdFlows-to-Delete-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {

    ...
}


HSDSCH-Initial-Capacity-Allocation::= SEQUENCE (SIZE (1..maxNrOfPrioQueues)) OF HSDSCH-Initial-Capacity-AllocationItem


HSDSCH-Initial-Capacity-AllocationItem ::= SEQUENCE {
    schedulingPriorityIndicator     SchedulingPriorityIndicator,
    maximum-MACdPDU-Size            MACdPDU-Size,
    hSDSCH-InitialWindowSize        HSDSCH-InitialWindowSize,
    iE-Extensions                   ProtocolExtensionContainer { {HSDSCH-Initial-Capacity-AllocationItem-ExtIEs} } OPTIONAL,
    ...
}

HSDSCH-Initial-Capacity-AllocationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-MaximumMACdPDU-SizeExtended    CRITICALITY ignore    EXTENSION   MAC-PDU-SizeExtended  PRESENCE optional},
    ...
}

HSDSCH-InitialWindowSize             ::= INTEGER (1..255)
-- Number of MAC-d PDUs.

HSDSCH-RNTI ::= INTEGER (0..65535)


HS-DSCH-serving-cell-change-information ::= SEQUENCE {
    hS-PDSCH-RLID          RL-ID,
    hSDSCH-FDD-Information        HSDSCH-FDD-Information                                         OPTIONAL,
    iE-Extensions                ProtocolExtensionContainer { { HS-DSCH-serving-cell-change-information-ExtIEs} }    OPTIONAL,
    ...
}

HS-DSCH-serving-cell-change-information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-Continuous-Packet-Connectivity-HS-SCCH-Less-Information CRITICALITY reject  EXTENSION Continuous-Packet-Connectivity-HS-SCCH-Less-
Information     PRESENCE optional},
    ...
}


HS-DSCH-serving-cell-change-informationResponse ::= SEQUENCE {
    hS-DSCH-serving-cell-choice    HS-DSCH-serving-cell-change-choice,
    iE-Extensions                  ProtocolExtensionContainer { { HS-DSCH-serving-cell-change-informationResponse-ExtIEs} } OPTIONAL,
    ...
}

HS-DSCH-serving-cell-change-informationResponse-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
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    ...
}

HS-DSCH-serving-cell-change-choice ::= CHOICE {
    hS-serving-cell-change-successful      HS-serving-cell-change-successful,
    hS-serving-cell-change-unsuccessful    HS-serving-cell-change-unsuccessful,
    ...
}

HSDSCH-TBSizeTableIndicator ::= ENUMERATED {
    octet-aligned
}

HS-serving-cell-change-successful ::= SEQUENCE {
    hSDSCH-FDD-Information-Response    HSDSCH-FDD-Information-Response,
    hSDSCH-RNTI                       HSDSCH-RNTI,
    iE-Extensions                     ProtocolExtensionContainer { { HS-serving-cell-change-successful-ExtIEs} } OPTIONAL,
    ...
}

HS-serving-cell-change-successful-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-Continuous-Packet-Connectivity-HS-SCCH-Less-Information-Response    CRITICALITY ignore  EXTENSION Continuous-Packet-Connectivity-HS-SCCH-
Less-Information-Response        PRESENCE optional},
    ...
}

HS-serving-cell-change-unsuccessful ::= SEQUENCE {
    cause                         Cause,
    iE-Extensions                 ProtocolExtensionContainer { { HS-serving-cell-change-unsuccessful-ExtIEs} } OPTIONAL,
    ...
}

HS-serving-cell-change-unsuccessful-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSPDSCH-First-Code-Index ::= INTEGER (1..maxHS-PDSCHCodeNrComp-1)
    -- index of first HS-PDSCH code

HSPDSCH-Second-Code-Index ::= INTEGER (1..maxHS-PDSCHCodeNrComp-1)
    -- index of second HS-PDSCH code

HSPDSCH-Second-Code-Support ::= BOOLEAN
    -- true: applied, false: not applied


HSDSCH-TDD-Information ::= SEQUENCE {
    hSDSCH-MACdFlows-Information            HSDSCH-MACdFlows-Information,
    uE-Capabilities-Info                   UE-Capabilities-Info,
    mAChs-Reordering-Buffer-Size-for-RLC-UM   MAChsReorderingBufferSize-for-RLC-UM,
    tDD-AckNack-Power-Offset               TDD-AckNack-Power-Offset,
    iE-Extensions                          ProtocolExtensionContainer { { HSDSCH-TDD-Information-ExtIEs } }      OPTIONAL,
    ...
}
```

```
HSDSCH-TDD-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-HSDSCH-MACdPDUSizeFormat    CRITICALITY reject     EXTENSION   HSDSCH-MACdPDUSizeFormat  PRESENCE optional}|
{ ID id-HSSICH-SIRTarget            CRITICALITY ignore     EXTENSION UL-SIR                                      PRESENCE optional}|
-- Applicable to 1.28Mcps TDD only
{ ID id-HSSICH-TPC-StepSize         CRITICALITY ignore     EXTENSION TDD-TPC-UplinkStepSize-LCR                  PRESENCE optional}|
-- Mandatory for 1.28Mcps TDD only
{ ID id-tSN-Length                  CRITICALITY reject     EXTENSION TSN-Length                                  PRESENCE optional },
-- Applicable for 1.28Mcps TDD when using multiple frequencies
    ...
}

HSDSCH-TDD-Information-Response ::= SEQUENCE {
    hSDSCH-MACdFlow-Specific-InfoList-Response       HSDSCH-MACdFlow-Specific-InfoList-Response      OPTIONAL,
    hSSCCH-TDD-Specific-InfoList-Response            HSSCCH-TDD-Specific-InfoList-Response           OPTIONAL,
    -- Not Applicable to 1.28Mcps TDD
    hSSCCH-TDD-Specific-InfoList-Response-LCR        HSSCCH-TDD-Specific-InfoList-Response-LCR        OPTIONAL,
    -- Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD. This HSSCCH Specific Information is for the first Frequency repetition, HSSCCH Specific
Information for Frequency repetitions 2 and on, should be defined in MultipleFreq-HSPDSCH-InformationList-ResponseTDDLCR
    hSPDSCH-TDD-Specific-InfoList-Response           HSPDSCH-TDD-Specific-InfoList-Response           OPTIONAL,
    hSPDSCH-TDD-Specific-InfoList-Response-LCR       HSPDSCH-TDD-Specific-InfoList-Response-LCR        OPTIONAL,
    hARQ-MemoryPartitioning                          HARQ-MemoryPartitioning                          OPTIONAL,
    -- For 1.28Mcps TDD, this HARQ Memory Partitioning Information is for the first Frequency repetition, HARQ Memory Partitioning Information for
Frequency repetitions 2 and on, should be defined in  MultipleFreq-HSPDSCH-InformationList-ResponseTDDLCR
    iE-Extensions                                    ProtocolExtensionContainer { { HSDSCH-TDD-Information-Response-ExtIEs } }        OPTIONAL,
    ...
}

HSDSCH-TDD-Information-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-User-Plane-Congestion-Fields-Inclusion                 CRITICALITY ignore  EXTENSION User-Plane-Congestion-Fields-Inclusion
    PRESENCE optional}|
{ ID id-hSSCCH-TDD-Specific-InfoList-Response768               CRITICALITY ignore  EXTENSION HSSCCH-TDD-Specific-InfoList-Response768
    PRESENCE optional}|
{ ID id-hSPDSCH-TDD-Specific-InfoList-Response768              CRITICALITY ignore  EXTENSION HSPDSCH-TDD-Specific-InfoList-Response768
    PRESENCE optional}|
{ ID id-UARFCNforNt                                            CRITICALITY ignore  EXTENSION UARFCN
    PRESENCE optional}|
-- Applicable to 1.28Mcps TDD when using multiple frequencies ,This is the UARFCN for the first Frequency repetition
{ ID id-multipleFreq-HSPDSCH-InformationList-ResponseTDDLCR    CRITICALITY ignore  EXTENSION MultipleFreq-HSPDSCH-InformationList-ResponseTDDLCR
PRESENCE optional }|
-- Applicable to 1.28Mcps TDD when using multiple frequencies ,This MultipleFreq-HSPDSCH-InformationList-ResponseTDDLCR is the HS-SCCH and HARQ
Memory Partitioning information for the 2nd and beyond HS-PDSCH frequencies
{ ID id-multicarrier-number                                   CRITICALITY ignore  EXTENSION  Multicarrier-Number
    PRESENCE optional },
-- Applicable for 1.28Mcps TDD when using multiple frequencies
    ...
}

Multicarrier-Number ::= INTEGER (1..maxHSDPAFrequency)

HSPDSCH-TDD-Specific-InfoList-Response ::= SEQUENCE (SIZE (0..maxNrOfDLTs)) OF HSPDSCH-TDD-Specific-InfoItem-Response

HSPDSCH-TDD-Specific-InfoItem-Response ::= SEQUENCE {
    timeslot                                    TimeSlot,
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    midambleShiftAndBurstType                       MidambleShiftAndBurstType,
    iE-Extensions                                   ProtocolExtensionContainer { { HSPDSCH-TDD-Specific-InfoItem-Response-ExtIEs } }
    OPTIONAL,
    ...
}

HSPDSCH-TDD-Specific-InfoItem-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSPDSCH-TDD-Specific-InfoList-Response-LCR ::= SEQUENCE (SIZE (1.. maxNrOfDLTsLCR)) OF HSPDSCH-TDD-Specific-InfoItem-Response-LCR

HSPDSCH-TDD-Specific-InfoItem-Response-LCR ::= SEQUENCE {
    timeslotLCR                                     TimeSlotLCR,
    midambleShiftLCR                                MidambleShiftLCR,
    iE-Extensions                                   ProtocolExtensionContainer { { HSPDSCH-TDD-Specific-InfoItem-Response-LCR-ExtIEs } }
    OPTIONAL,
    ...
}

HSPDSCH-TDD-Specific-InfoItem-Response-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSPDSCH-TDD-Specific-InfoList-Response768 ::= SEQUENCE (SIZE (0..maxNrOfDLTs)) OF HSPDSCH-TDD-Specific-InfoItem-Response768

HSPDSCH-TDD-Specific-InfoItem-Response768 ::= SEQUENCE {
    timeslot                                        TimeSlot,
    midambleShiftAndBurstType768                    MidambleShiftAndBurstType768,
    iE-Extensions                                   ProtocolExtensionContainer { { HSPDSCH-TDD-Specific-InfoItem-Response-768-ExtIEs } }
    OPTIONAL,
    ...
}

HSPDSCH-TDD-Specific-InfoItem-Response-768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSSCCH-FDD-Specific-InfoList-Response ::= SEQUENCE (SIZE (0..maxNrOfHSSCCHCodes)) OF HSSCCH-FDD-Specific-InfoItem-Response

HSSCCH-FDD-Specific-InfoItem-Response ::= SEQUENCE {
    code-Number                                     INTEGER (0..127),
    iE-Extensions                                   ProtocolExtensionContainer { { HSSCCH-FDD-Specific-InfoItem-Response-ExtIEs } }
    OPTIONAL,
    ...
}

HSSCCH-FDD-Specific-InfoItem-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSSCCH-PowerOffset ::= INTEGER (0..255)
-- PowerOffset = -32 + offset * 0.25
-- Unit dB, Range -32dB .. +31.75dB, Step +0.25dB
```

```
HSSCCH-TDD-Specific-InfoList-Response ::= SEQUENCE (SIZE (0..maxNrOfHSSCCHCodes)) OF HSSCCH-TDD-Specific-InfoItem-Response

HSSCCH-TDD-Specific-InfoItem-Response ::= SEQUENCE {
    timeslot                                TimeSlot,
    midambleShiftAndBurstType               MidambleShiftAndBurstType,
    tDD-ChannelisationCode                  TDD-ChannelisationCode,
    hSSICH-Info                             HSSICH-Info,
    iE-Extensions                           ProtocolExtensionContainer { { HSSCCH-TDD-Specific-InfoItem-Response-ExtIEs } }
    OPTIONAL,
    ...
}

HSSCCH-TDD-Specific-InfoItem-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSSCCH-TDD-Specific-InfoList-Response-LCR ::= SEQUENCE (SIZE (0..maxNrOfHSSCCHCodes)) OF HSSCCH-TDD-Specific-InfoItem-Response-LCR

HSSCCH-TDD-Specific-InfoItem-Response-LCR ::= SEQUENCE {
    timeslotLCR                             TimeSlotLCR,
    midambleShiftLCR                        MidambleShiftLCR,
    first-TDD-ChannelisationCode            TDD-ChannelisationCode,
    second-TDD-ChannelisationCode           TDD-ChannelisationCode,
    hSSICH-InfoLCR                          HSSICH-InfoLCR,
    iE-Extensions                           ProtocolExtensionContainer { { HSSCCH-TDD-Specific-InfoItem-Response-LCR-ExtIEs } }
    OPTIONAL,
    ...
}

HSSCCH-TDD-Specific-InfoItem-Response-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSSCCH-TDD-Specific-InfoList-Response768 ::= SEQUENCE (SIZE (0..maxNrOfHSSCCHCodes)) OF HSSCCH-TDD-Specific-InfoItem-Response768

HSSCCH-TDD-Specific-InfoItem-Response768 ::= SEQUENCE {
    timeslot                                TimeSlot,
    midambleShiftAndBurstType768            MidambleShiftAndBurstType768,
    tDD-ChannelisationCode768               TDD-ChannelisationCode768,
    hSSICH-Info768                          HSSICH-Info768,
    iE-Extensions                           ProtocolExtensionContainer { { HSSCCH-TDD-Specific-InfoItem-Response768-ExtIEs } }
    OPTIONAL,
    ...
}

HSSCCH-TDD-Specific-InfoItem-Response768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSSICH-Info ::= SEQUENCE {
    hsSICH-ID                               HS-SICH-ID,
    timeslot                                TimeSlot,
    midambleShiftAndBurstType               MidambleShiftAndBurstType,
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        tDD-ChannelisationCode                          TDD-ChannelisationCode,
        iE-Extensions                                   ProtocolExtensionContainer { { HSSICH-Info-ExtIEs } }       OPTIONAL,
        ...
}

HSSICH-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSSICH-InfoLCR ::= SEQUENCE {
    hsSICH-ID                                   HS-SICH-ID,
    timeslotLCR                                 TimeSlotLCR,
    midambleShiftLCR                            MidambleShiftLCR,
    tDD-ChannelisationCode                      TDD-ChannelisationCode,
    iE-Extensions                               ProtocolExtensionContainer { { HSSICH-Info-LCR-ExtIEs } }     OPTIONAL,
    ...
}

HSSICH-Info-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HS-SICH-ID-Extension               CRITICALITY ignore     EXTENSION HS-SICH-ID-Extension   PRESENCE optional},
    -- Applicable for 1.28Mcps TDD only when the HS-SICH ID IE is more than 31
    ...
}

HSSICH-Info768 ::= SEQUENCE {
    hsSICH-ID                                   HS-SICH-ID,
    timeslot                                    TimeSlot,
    midambleShiftAndBurstType768                MidambleShiftAndBurstType768,
    tDD-ChannelisationCode768                   TDD-ChannelisationCode768,
    iE-Extensions                               ProtocolExtensionContainer { { HSSICH-Info-768-ExtIEs } }     OPTIONAL,
    ...
}

HSSICH-Info-768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-SICH-Reception-Quality-Value ::= SEQUENCE {
    failed-HS-SICH            HS-SICH-failed,
    missed-HS-SICH            HS-SICH-missed,
    total-HS-SICH             HS-SICH-total,
    iE-Extensions             ProtocolExtensionContainer { { HS-SICH-Reception-Quality-Value-ExtIEs} } OPTIONAL,
...
}

HS-SICH-Reception-Quality-Value-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-SICH-failed ::= INTEGER (0..20)

HS-SICH-missed ::= INTEGER (0..20)

HS-SICH-total ::= INTEGER (0..20)
```

```
HS-SICH-Reception-Quality-Measurement-Value ::= INTEGER (0..20)
-- According to mapping in [23]


HS-SICH-ID ::= INTEGER (0..31)


HS-SICH-ID-Extension ::= INTEGER (32..255,...)


HSSCCH-CodeChangeIndicator  ::= ENUMERATED {
    hsSCCHCodeChangeNeeded
}


HSSCCH-Code-Change-Grant    ::= ENUMERATED {
    changeGranted
}


HS-PDSCH-Code-Change-Indicator  ::= ENUMERATED {
    hsPDSCHCodeChangeNeeded
}


HS-PDSCH-Code-Change-Grant  ::= ENUMERATED {
    changeGranted
}


HSDSCH-FDD-Update-Information ::= SEQUENCE {
    hsSCCHCodeChangeIndicator                   HSSCCH-CodeChangeIndicator                  OPTIONAL,
    cqiFeedback-CycleK                          CQI-Feedback-Cycle                          OPTIONAL,
    cqiRepetitionFactor                         CQI-RepetitionFactor                        OPTIONAL,
    ackNackRepetitionFactor                     AckNack-RepetitionFactor                    OPTIONAL,
    cqiPowerOffset                              CQI-Power-Offset                            OPTIONAL,
    ackPowerOffset                              Ack-Power-Offset                            OPTIONAL,
    nackPowerOffset                             Nack-Power-Offset                           OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { HSDSCH-FDD-Update-Information-ExtIEs } }    OPTIONAL,
    ...
}

HSDSCH-FDD-Update-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ID id-HS-PDSCH-Code-Change-Indicator    CRITICALITY ignore    EXTENSION   HS-PDSCH-Code-Change-Indicator    PRESENCE optional },
    ...
}

HSDSCH-TDD-Update-Information ::= SEQUENCE {
    hsSCCHCodeChangeIndicator                   HSSCCH-CodeChangeIndicator                  OPTIONAL,
    tDDAckNackPowerOffset                       TDD-AckNack-Power-Offset                    OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { HSDSCH-TDD-Update-Information-ExtIEs } }    OPTIONAL,
    ...
}

HSDSCH-TDD-Update-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- I
```

```
IMEI         ::= OCTET STRING (SIZE(8))

IMEISV       ::= OCTET STRING (SIZE(8))

IMSI         ::= OCTET STRING (SIZE(3..8))

Inactivity-Threshold-for-UE-DTX-Cycle2 ::= ENUMERATED {v1, v4, v8, v16, v32, v64, v128, v256}
-- Unit E-DCH TTI


Inactivity-Threshold-for-UE-DRX-Cycle ::= ENUMERATED {v0, v1, v2, v4, v8, v16, v32, v64, v128, v256, v512}
-- Unit subframe


Inactivity-Threshold-for-UE-Grant-Monitoring ::= ENUMERATED {v0, v1, v2, v4, v8, v16, v32, v64, v128, v256}
-- Unit E-DCH TTI




InformationAvailable::= SEQUENCE {
    requestedDataValue      RequestedDataValue,
    iE-Extensions           ProtocolExtensionContainer { { InformationAvailable-ExtIEs} }      OPTIONAL,
    ...
}

InformationAvailable-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

InformationExchangeID ::= INTEGER (0..1048575)


InformationNotAvailable ::= NULL

InformationReportCharacteristics ::= CHOICE {
    onDemand                NULL,
    periodic                PeriodicInformation,
    onModification          OnModificationInformation,
    ...
}

InformationReportPeriodicity ::= CHOICE {
    min             INTEGER (1..60,...),
-- Unit min, Step 1min
    hour            INTEGER (1..24,...),
-- Unit hour, Step 1hour
    ...
}

InformationThreshold ::= CHOICE {
    dGPSThreshold       DGPSThreshold,
    ...,
    dGANSSThreshold     DGANSSThreshold
}


InformationType ::= SEQUENCE {
```

```
    informationTypeItem      ENUMERATED {
        gA-AccessPointPositionwithAltitude,
        gA-AccessPointPosition,
        iPDLParameters,
        gPSInformation,
        dGPSCorrections,
        gPS-RX-POS,
        sFNSFN-GA-AccessPointPosition,
        ...,
        cell-Capacity-Class,
        nACC-Related-Data,
        mBMSBearerServiceFullAddress,
        interFrequencyCellInformation,
        gANSSInformation,
        dGANSSCorrections,
        gANSS-RX-Pos
    },
    gPSInformation              GPSInformation          OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { { InformationType-ExtIEs} }       OPTIONAL,
    ...
}

-- The GPS Information IE shall be present if the Information Exchange Type IE indicates 'GPS Information'
-- For information exchange on the Iur-g interface, only the Cell Capacity Class is used.

InformationType-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- The following IE shall be present if the Information Type Item IE indicates 'GANSS Information'
    { ID id-GANSS-Information          CRITICALITY ignore  EXTENSION GANSS-Information       PRESENCE conditional }|
-- The following IE shall be present if the Information Type Item IE indicates 'DGANSS Corrections'
    { ID id-DGANSS-Corrections-Req     CRITICALITY ignore  EXTENSION DGANSS-Corrections-Req   PRESENCE conditional },
    ...
}

Initial-DL-DPCH-TimingAdjustment-Allowed ::= ENUMERATED {
    initial-DL-DPCH-TimingAdjustment-Allowed
}

InnerLoopDLPCStatus      ::= ENUMERATED {active, inactive}

IPDLParameters ::= CHOICE {
    iPDL-FDD-Parameters         IPDL-FDD-Parameters,
    iPDL-TDD-Parameters         IPDL-TDD-Parameters,    --3.84Mcps TDD and 7.68Mcps TDD only
    ...,
    extension-IPDLParameters    Extension-IPDLParameters
}

Extension-IPDLParameters    ::= ProtocolIE-Single-Container {{ Extension-IPDLParametersIE }}

Extension-IPDLParametersIE RNSAP-PROTOCOL-IES ::= {
    { ID id-IPDL-TDD-ParametersLCR  CRITICALITY reject  TYPE IPDL-TDD-ParametersLCR PRESENCE mandatory },
    ...
}

Inter-Frequency-Cell-List   ::= SEQUENCE (SIZE (0..maxCellsMeas)) OF Inter-Frequency-Cell
```

```
Inter-Frequency-Cell ::= SEQUENCE {
    dL-UARFCN                   UARFCN,
    uL-UARFCN                   UARFCN      OPTIONAL,
    primaryScramblingCode       PrimaryScramblingCode,
    iE-Extensions               ProtocolExtensionContainer { {Inter-Frequency-Cell-ExtIEs} }     OPTIONAL,
    ...
}

Inter-Frequency-Cell-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Inter-Frequency-Cell-Information ::= SEQUENCE {
    inter-Frequency-Cell-Information-SIB11     Inter-Frequency-Cell-Information-SIB11,
    inter-Frequency-Cell-Information-SIB12     Inter-Frequency-Cell-Information-SIB12,
    iE-Extensions               ProtocolExtensionContainer { {Inter-Frequency-Cell-Information-ExtIEs } } OPTIONAL,
    ...
}

Inter-Frequency-Cell-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Inter-Frequency-Cell-Information-SIB11 ::= SEQUENCE (SIZE (0..2)) OF Inter-Frequency-Cells-Information-SIB11-Per-Indication

Inter-Frequency-Cell-Information-SIB12 ::= SEQUENCE (SIZE (0..2)) OF Inter-Frequency-Cells-Information-SIB12-Per-Indication

Inter-Frequency-Cells-Information-SIB11-Per-Indication ::= SEQUENCE {
    inter-Frequency-Cell-Indication-SIB11   Inter-Frequency-Cell-Indication,
    inter-Frequency-Cell-List-SIB11     Inter-Frequency-Cell-SIB11-or-SIB12-List,
    iE-Extensions               ProtocolExtensionContainer { { Inter-Frequency-Cells-Information-SIB11-Per-Indication-ExtIEs } }  OPTIONAL,
    ...
}

Inter-Frequency-Cells-Information-SIB11-Per-Indication-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


Inter-Frequency-Cells-Information-SIB12-Per-Indication ::= SEQUENCE {
    inter-Frequency-Cell-Indication-SIB12   Inter-Frequency-Cell-Indication,
    inter-Frequency-Cell-List-SIB12     Inter-Frequency-Cell-SIB11-or-SIB12-List,
    iE-Extensions               ProtocolExtensionContainer { { Inter-Frequency-Cells-Information-SIB12-Per-Indication-ExtIEs } }  OPTIONAL,
    ...
}

Inter-Frequency-Cells-Information-SIB12-Per-Indication-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Inter-Frequency-Cell-Indication ::= INTEGER (0..1)
Inter-Frequency-Cell-SIB11-or-SIB12-List ::= SEQUENCE (SIZE (0..maxCellSIB11OrSIB12)) OF Inter-Frequency-Cell-SIB11-or-SIB12
```

```
Inter-Frequency-Cell-SIB11-or-SIB12 ::= SEQUENCE {
    interFrequencyCellID        InterFrequencyCellID,
    dL-UARFCN                   UARFCN,
    uL-UARFCN                   UARFCN       OPTIONAL,
    primaryScramblingCode       PrimaryScramblingCode,
    iE-Extensions               ProtocolExtensionContainer { {Inter-Frequency-Cell-ExtIEs} }     OPTIONAL,
    ...
}

InterFrequencyCellID ::= INTEGER (0..31)


IPDL-FDD-Parameters ::= SEQUENCE {
    iPSpacingFDD                IPSpacingFDD,
    iPLength                    IPLength,
    iPOffset                    IPOffset,
    seed                        Seed,
    burstModeParameters         BurstModeParameters   OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { { IPDL-FDD-Parameters-ExtIEs} }     OPTIONAL,
    ...
}

IPDL-FDD-Parameters-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

IPDL-TDD-Parameters ::= SEQUENCE {
    iPSpacingTDD                IPSpacingTDD,
    iPStart                     IPStart,
    iPSlot                      IPSlot,
    iP-P-CCPCH                  IP-P-CCPCH,
    burstModeParameters         BurstModeParameters   OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { { IPDL-TDD-Parameters-ExtIEs} }     OPTIONAL,
    ...
}

-- The BurstModeParameters IE shall be included if the Idle Periods are arranged in Burst Mode.

IPDL-TDD-Parameters-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

IPDL-TDD-ParametersLCR ::= SEQUENCE {
    iPSpacingTDD                IPSpacingTDD,
    iPStart                     IPStart,
    iPSub                       IPSub,
    burstModeParameters         BurstModeParameters    OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { { IPDL-TDD-ParametersLCR-ExtIEs} }  OPTIONAL,
    ...
}

-- The BurstModeParameters IE shall be included if the Idle Periods are arranged in Burst Mode.

IPDL-TDD-ParametersLCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

IPLength ::= ENUMERATED {
    ipl5,
    ipl10,
    ...
}

IPMulticastAddress  ::= OCTET STRING (SIZE (4..16))

IPOffset ::= INTEGER (0..9)

IP-P-CCPCH ::= ENUMERATED {
    switchOff-1-Frame,
    switchOff-2-Frames
}

IPSlot ::= INTEGER (0..14)

IPSpacingFDD ::= ENUMERATED {
    ipsF5,
    ipsF7,
    ipsF10,
    ipsF15,
    ipsF20,
    ipsF30,
    ipsF40,
    ipsF50,
    ...
}

IPSpacingTDD ::= ENUMERATED {
    ipsT30,
    ipsT40,
    ipsT50,
    ipsT70,
    ipsT100,
    ...
}

IPStart ::= INTEGER (0..4095)

IPSub ::= ENUMERATED {
    first,
    second,
    both
}

-- J
-- K
-- L

LAC              ::= OCTET STRING (SIZE (2)) --(EXCEPT ('0000'H|'FFFE'H))
```

ETSI

```
LimitedPowerIncrease ::= ENUMERATED {
    used,
    not-used
}

List-Of-PLMNs ::= SEQUENCE (SIZE (1..maxNrOfBroadcastPLMNs)) OF PLMN-Identity

L3-Information            ::= BIT STRING

Load-Value-IncrDecrThres ::= INTEGER(0..100)

Load-Value ::= INTEGER(0..100)

LoadValue ::= SEQUENCE {
        uplinkLoadValue     INTEGER(0..100),
        downlinkLoadValue   INTEGER(0..100)
}

LCRTDD-Uplink-Physical-Channel-Capability ::= SEQUENCE {
    maxTimeslotsPerSubFrame              INTEGER(1..6),
    maxPhysChPerTimeslot                 ENUMERATED{ts1, ts2, ts3, ts4,...},
    iE-Extensions                        ProtocolExtensionContainer { { LCRTDD-Uplink-Physical-Channel-Capability-ExtIEs} } OPTIONAL,
    ...
}

LCRTDD-Uplink-Physical-Channel-Capability-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


-- M

MaxNrOfUL-DPCHs             ::= INTEGER (1..6)

MAC-c-sh-SDU-Length        ::= INTEGER (1..5000)

MAC-c-sh-SDU-LengthList ::= SEQUENCE(SIZE(1..maxNrOfMACcshSDU-Length)) OF MAC-c-sh-SDU-Length

MAC-DTX-Cycle-2ms ::= ENUMERATED {v1, v4, v5, v8, v10, v16, v20}

MAC-DTX-Cycle-10ms ::= ENUMERATED {v5, v10, v20}

MAC-ehs-Reset-Timer ::= ENUMERATED {v1, v2, v3, v4,...}

MAC-Inactivity-Threshold ::= ENUMERATED {v1, v2, v4, v8, v16, v32, v64, v128, v256, v512, infinity}
    -- Unit subframe

MACdPDU-Size ::= INTEGER (1..5000,...)
    -- In case of E-DCH value 8 and values not multiple of 8 shall not be used

MAC-PDU-SizeExtended ::= INTEGER (1..1504,...,1505)

MACdPDU-Size-IndexList ::= SEQUENCE (SIZE (1..maxNrOfPDUIndexes)) OF MACdPDU-Size-IndexItem
```

```
MACdPDU-Size-IndexItem ::= SEQUENCE {
    sID                               SID,
    mACdPDU-Size                      MACdPDU-Size,
    iE-Extensions                     ProtocolExtensionContainer { { MACdPDU-Size-IndexItem-ExtIEs } }        OPTIONAL,
    ...
}

MACdPDU-Size-IndexItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MACdPDU-Size-IndexList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfPDUIndexes)) OF MACdPDU-Size-IndexItem-to-Modify

MACdPDU-Size-IndexItem-to-Modify ::= SEQUENCE {
    sID                               SID,
    mACdPDU-Size                      MACdPDU-Size,
    iE-Extensions                     ProtocolExtensionContainer { { MACdPDU-Size-IndexItem-to-Modify-ExtIEs } }        OPTIONAL,
    ...
}

MACdPDU-Size-IndexItem-to-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MACes-Guaranteed-Bitrate ::= INTEGER (0..16777215,...,16777216..256000000)

MACes-Maximum-Bitrate-LCR ::= INTEGER (0..256000000,...)

MACeReset-Indicator ::= ENUMERATED {mACeReset}

MAChsGuaranteedBitRate ::= INTEGER (0..16777215,...,16777216..256000000)

MAChsReorderingBufferSize-for-RLC-UM ::= INTEGER (0..300,...)
-- Unit kBytes

MAC-hsWindowSize        ::= ENUMERATED {v4, v6, v8, v12, v16, v24, v32,...}

MaximumAllowedULTxPower       ::= INTEGER (-50..33)

Max-Bits-MACe-PDU-non-scheduled ::= INTEGER(1..maxNrOfBits-MACe-PDU-non-scheduled)

MaxNrDLPhysicalchannels       ::= INTEGER (1..224)
-- 1.28Mcps TDD 97 – 224 are unused

MaxNrDLPhysicalchannels768   ::= INTEGER (1..448)

MaxNrDLPhysicalchannelsTS     ::= INTEGER (1..16)

MaxNrDLPhysicalchannelsTS768    ::= INTEGER (1..32)

MaxNr-Retransmissions-EDCH  ::= INTEGER (0..15)

MaxNrTimeslots                ::= INTEGER (1..14)
```

```
-- 1.28Mcps values 7-14 are unused


MaxNrULPhysicalchannels     ::= INTEGER (1..2)

Max-Set-E-DPDCHs ::= ENUMERATED {
    vN256, vN128, vN64, vN32, vN16, vN8, vN4, v2xN4, v2xN2, v2xN2plus2xN4,
    ...,
    v2xM2plus2xM4
    }
-- Values releated to [9]


Max-UE-DTX-Cycle ::= ENUMERATED {
    v5, v10, v20, v40, v64, v80, v128, v160,
    ...
    }

MBMS-Bearer-Service-Full-Address ::= SEQUENCE {
    accessPointName                    AccessPointName,
    iPMulticastAddress                 IPMulticastAddress,
    iE-Extensions                      ProtocolExtensionContainer { { MBMS-Bearer-Service-Full-Address-ExtIEs } }     OPTIONAL,
    ...
}

MBMS-Bearer-Service-Full-Address-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MBMS-Bearer-Service-List    ::= SEQUENCE (SIZE (1..maxNrOfMBMSServices)) OF TMGI

MBMS-Bearer-ServiceItemFDD  ::=SEQUENCE{
    tmgi    TMGI,
    transmissionMode    TransmissionMode,
    iE-Extensions                      ProtocolExtensionContainer { { MBMS-Bearer-ServiceItemFDD-ExtIEs} } OPTIONAL,
    ...
}


MBMS-Bearer-ServiceItemFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MBMS-Bearer-ServiceItemFDD-PFL  ::=SEQUENCE{
    tmgi    TMGI,
    transmissionMode        TransmissionMode    OPTIONAL,
    preferredFrequencyLayer    UARFCN          OPTIONAL,
    iE-Extensions                      ProtocolExtensionContainer { { MBMS-Bearer-ServiceItemFDD-PFL-ExtIEs} } OPTIONAL,
    ...
}

MBMS-Bearer-ServiceItemFDD-PFL-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
MBMS-Bearer-ServiceItemTDD  ::=SEQUENCE{
    tmgi    TMGI,
    transmissionMode    TransmissionMode,
    iE-Extensions                       ProtocolExtensionContainer { { MBMS-Bearer-ServiceItemTDD-ExtIEs} } OPTIONAL,
    ...
}

MBMS-Bearer-ServiceItemTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MBMS-Bearer-ServiceItemTDD-PFL  ::=SEQUENCE{
    tmgi    TMGI,
    transmissionMode    TransmissionMode    OPTIONAL,
    preferredFrequencyLayer    UARFCN          OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { MBMS-Bearer-ServiceItemTDD-PFL-ExtIEs} } OPTIONAL,
    ...
}
MBMS-Bearer-ServiceItemTDD-PFL-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MBMSChannelTypeInfo ::= SEQUENCE {
    tMGI                TMGI,
    pTM-Cell-List       PTMCellList     OPTIONAL,
    pTP-Cell-List       PTPCellList     OPTIONAL,
    not-Provided-Cell-List  NotProvidedCellList OPTIONAL,
    iE-Extensions       ProtocolExtensionContainer { { MBMSChannelTypeInfo-ExtIEs} } OPTIONAL,
    ...
}

MBMSChannelTypeInfo-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MBMSChannelTypeCellList ::= SEQUENCE {
    c-ID                            C-ID,
    affectedUEInformationForMBMS        AffectedUEInformationForMBMS    OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { MBMSChannelTypeCellList-ExtIEs} } OPTIONAL,
    ...
}

MBMSChannelTypeCellList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MBMSPreferredFreqLayerInfo  ::= SEQUENCE {
    tMGI                        TMGI,
    preferredFrequencyLayerInfo     PreferredFrequencyLayerInfo,
    iE-Extensions                       ProtocolExtensionContainer { { MBMSPreferredFreqLayerInfo-ExtIEs} } OPTIONAL,
    ...
}
MBMSPreferredFreqLayerInfo-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}


MeasurementFilterCoefficient ::=  ENUMERATED{k0, k1, k2, k3, k4, k5, k6, k7, k8, k9, k11, k13, k15, k17, k19,...}
-- Measurement Filter Coefficient to be used for measurement

MeasurementID               ::= INTEGER (0..1048575)

Measurement-Power-Offset ::= INTEGER(-12 .. 26)
-- Actual value = IE value * 0.5

MinimumSpreadingFactor       ::= INTEGER (1..16)

MinimumSpreadingFactor768       ::= INTEGER (1..32)

MultipleURAsIndicator ::= ENUMERATED {
    multiple-URAs-exist,
    single-URA-exists
}

MaxAdjustmentStep           ::= INTEGER(1..10)
-- Unit Slot

MeasurementChangeTime       ::= INTEGER (1..6000,...)
-- The MeasurementChangeTime  gives the MeasurementChangeTime
-- in number of 10 ms periods.
-- E.g. Value 6000 means 60000ms(1min)
-- Unit is ms, Step is 10 ms


MeasurementHysteresisTime       ::= INTEGER (1..6000,...)
-- The MeasurementHysteresisTime  gives the
-- MeasurementHysteresisTime in number of 10 ms periods.
-- E.g. Value 6000 means 60000ms(1min)
-- Unit is ms, Step is 10ms

MeasurementIncreaseDecreaseThreshold          ::= CHOICE {
    sir                         SIR-Value-IncrDecrThres,
    sir-error                   SIR-Error-Value-IncrDecrThres,
    transmitted-code-power      Transmitted-Code-Power-Value-IncrDecrThres,
    rscp                        RSCP-Value-IncrDecrThres,
    round-trip-time             Round-Trip-Time-IncrDecrThres,
    ...,
    extension-MeasurementIncreaseDecreaseThreshold     Extension-MeasurementIncreaseDecreaseThreshold
}

Extension-MeasurementIncreaseDecreaseThreshold  ::= ProtocolIE-Single-Container {{ Extension-MeasurementIncreaseDecreaseThresholdIE }}

Extension-MeasurementIncreaseDecreaseThresholdIE RNSAP-PROTOCOL-IES ::= {
    { ID id-Load-Value-IncrDecrThres    CRITICALITY reject  TYPE Load-Value-IncrDecrThres    PRESENCE mandatory }|
    { ID id-Transmitted-Carrier-Power-Value-IncrDecrThres   CRITICALITY reject  TYPE Transmitted-Carrier-Power-Value-IncrDecrThres    PRESENCE
mandatory }|
```

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```
    { ID id-Received-Total-Wideband-Power-Value-IncrDecrThres   CRITICALITY reject  TYPE Received-Total-Wideband-Power-Value-IncrDecrThres
    PRESENCE mandatory }|
    { ID id-UL-Timeslot-ISCP-Value-IncrDecrThres    CRITICALITY reject  TYPE UL-Timeslot-ISCP-Value-IncrDecrThres   PRESENCE mandatory }|
    { ID id-RT-Load-Value-IncrDecrThres CRITICALITY reject  TYPE RT-Load-Value-IncrDecrThres    PRESENCE mandatory }|
    { ID id-NRT-Load-Information-Value-IncrDecrThres   CRITICALITY reject  TYPE NRT-Load-Information-Value-IncrDecrThres PRESENCE mandatory }|
    { ID id-UpPTSInterferenceValue        CRITICALITY reject  TYPE   UpPTSInterferenceValue      PRESENCE mandatory }
}

MeasurementRecoveryBehavior ::= NULL

MeasurementRecoveryReportingIndicator ::= NULL

MeasurementRecoverySupportIndicator ::= NULL

MeasurementThreshold            ::= CHOICE {
    sir                         SIR-Value,
    sir-error                   SIR-Error-Value,
    transmitted-code-power      Transmitted-Code-Power-Value,
    rscp                        RSCP-Value,
    rx-timing-deviation         Rx-Timing-Deviation-Value,
    round-trip-time             Round-Trip-Time-Value,
    ...,
    extension-MeasurementThreshold  Extension-MeasurementThreshold
}

Extension-MeasurementThreshold  ::= ProtocolIE-Single-Container {{ Extension-MeasurementThresholdIE }}

Extension-MeasurementThresholdIE RNSAP-PROTOCOL-IES ::= {
    { ID id-TUTRANGPSMeasurementThresholdInformation    CRITICALITY reject   TYPE TUTRANGPSMeasurementThresholdInformation    PRESENCE mandatory }|
    { ID id-SFNSFNMeasurementThresholdInformation       CRITICALITY reject   TYPE SFNSFNMeasurementThresholdInformation       PRESENCE mandatory }|
    { ID id-Load-Value                                  CRITICALITY reject   TYPE Load-Value                                  PRESENCE mandatory }|
    { ID id-Transmitted-Carrier-Power-Value             CRITICALITY reject   TYPE Transmitted-Carrier-Power-Value             PRESENCE mandatory }|
    { ID id-Received-Total-Wideband-Power-Value         CRITICALITY reject   TYPE Received-Total-Wideband-Power-Value         PRESENCE mandatory }|
    { ID id-UL-Timeslot-ISCP-Value                      CRITICALITY reject   TYPE UL-Timeslot-ISCP-Value                      PRESENCE mandatory }|
    { ID id-RT-Load-Value                               CRITICALITY reject   TYPE RT-Load-Value                               PRESENCE mandatory }|
    { ID id-NRT-Load-Information-Value                  CRITICALITY reject   TYPE NRT-Load-Information-Value                  PRESENCE mandatory }|
    { ID id-Rx-Timing-Deviation-Value-LCR              CRITICALITY reject   TYPE Rx-Timing-Deviation-Value-LCR              PRESENCE mandatory}|
    { ID id-HS-SICH-Reception-Quality-Measurement-Value CRITICALITY reject   TYPE HS-SICH-Reception-Quality-Measurement-Value PRESENCE mandatory}|
    { ID id-UpPTSInterferenceValue                      CRITICALITY reject   TYPE UpPTSInterferenceValue                      PRESENCE mandatory }|
    { ID id-Rx-Timing-Deviation-Value-768              CRITICALITY reject   TYPE Rx-Timing-Deviation-Value-768              PRESENCE mandatory}|
    { ID id-Rx-Timing-Deviation-Value-ext              CRITICALITY reject   TYPE Rx-Timing-Deviation-Value-ext              PRESENCE mandatory}|
    { ID id-Extended-Round-Trip-Time-Value             CRITICALITY reject   TYPE Extended-Round-Trip-Time-Value             PRESENCE mandatory }|
    { ID id-TUTRANGANSSMeasurementThresholdInformation CRITICALITY reject   TYPE TUTRANGANSSMeasurementThresholdInformation PRESENCE mandatory }
}

MidambleConfigurationBurstType1And3 ::=    ENUMERATED {v4, v8, v16}

MidambleConfigurationBurstType2 ::=     ENUMERATED {v3, v6}

MidambleConfigurationLCR ::=    ENUMERATED {v2, v4, v6, v8, v10, v12, v14, v16, ...}

MidambleShiftAndBurstType ::=     CHOICE {
    type1                          SEQUENCE {
        midambleConfigurationBurstType1And3    MidambleConfigurationBurstType1And3,
```

```
        midambleAllocationMode              CHOICE {
            defaultMidamble                     NULL,
            commonMidamble                      NULL,
            ueSpecificMidamble                  MidambleShiftLong,
            ...
        },
        ...
    },
    type2                           SEQUENCE {
        midambleConfigurationBurstType2     MidambleConfigurationBurstType2,
        midambleAllocationMode              CHOICE {
            defaultMidamble                     NULL,
            commonMidamble                      NULL,
            ueSpecificMidamble                  MidambleShiftShort,
            ...
        },
        ...
    },
    type3                           SEQUENCE {
        midambleConfigurationBurstType1And3 MidambleConfigurationBurstType1And3,
        midambleAllocationMode          CHOICE {
            defaultMidamble                     NULL,
            ueSpecificMidamble                  MidambleShiftLong,
            ...
        },
        ...
    },
    ...
}

MidambleShiftLong ::=               INTEGER (0..15)

MidambleShiftShort ::=              INTEGER (0..5)

MidambleShiftLCR ::= SEQUENCE {
    midambleAllocationMode      MidambleAllocationMode,
    midambleShift               MidambleShiftLong       OPTIONAL,
        -- The IE shall be present if the Midamble Allocation Mode IE is set to "UE specific midamble".
    midambleConfigurationLCR    MidambleConfigurationLCR,
    iE-Extensions               ProtocolExtensionContainer { {MidambleShiftLCR-ExtIEs} }       OPTIONAL,
    ...
}

MidambleAllocationMode ::= ENUMERATED {
    defaultMidamble,
    commonMidamble,
    uESpecificMidamble,
    ...
}

MidambleShiftLCR-ExtIEs  RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
MidambleShiftAndBurstType768 ::=         CHOICE {
    type1                               SEQUENCE {
        midambleConfigurationBurstType1And3    MidambleConfigurationBurstType1And3,
        midambleAllocationMode              CHOICE {
            defaultMidamble                     NULL,
            commonMidamble                      NULL,
            ueSpecificMidamble                  MidambleShiftLong,
            ...
        },
        ...
    },
    type2                               SEQUENCE {
        midambleConfigurationBurstType2-768    MidambleConfigurationBurstType2-768,
        midambleAllocationMode              CHOICE {
            defaultMidamble                     NULL,
            commonMidamble                      NULL,
            ueSpecificMidamble                  MidambleShiftShort768,
            ...
        },
        ...
    },
    type3                               SEQUENCE {
        midambleConfigurationBurstType1And3 MidambleConfigurationBurstType1And3,
        midambleAllocationMode          CHOICE {
            defaultMidamble                     NULL,
            ueSpecificMidamble                  MidambleShiftLong,
            ...
        },
        ...
    },
    ...
}

MidambleConfigurationBurstType2-768 ::=     ENUMERATED {v4, v8}

MidambleShiftShort768 ::=              INTEGER (0..7)

MIMO-ActivationIndicator     ::= NULL

MIMO-InformationResponse ::= SEQUENCE {
    mMIMO-PilotConfiguration                 MIMO-PilotConfiguration,
    mMIMO-N-M-Ratio                          MIMO-N-M-Ratio,
    iE-Extensions                            ProtocolExtensionContainer { { MIMO-InformationResponse-ExtIEs } }      OPTIONAL,
    ...
}

MIMO-InformationResponse-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


MIMO-Mode-Indicator ::= ENUMERATED {
    activate,
    deactivate
```

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```
}

MIMO-N-M-Ratio ::= ENUMERATED {v1-2, v2-3, v3-4, v4-5, v5-6, v6-7, v7-8, v8-9, v9-10, v1-1,...}

MIMO-PilotConfiguration ::= CHOICE {
    primary-and-secondary-CPICH          MIMO-S-CPICH-Channelisation-Code,
    normal-and-diversity-primary-CPICH   NULL,
    ...
}

MIMO-S-CPICH-Channelisation-Code ::= INTEGER (0..255)

MinUL-ChannelisationCodeLength       ::= ENUMERATED {
    v4,
    v8,
    v16,
    v32,
    v64,
    v128,
    v256
}

ModifyPriorityQueue ::= CHOICE {
    addPriorityQueue         PriorityQueue-InfoItem-to-Add,
    modifyPriorityQueue      PriorityQueue-InfoItem-to-Modify,
    deletePriorityQueue      PriorityQueue-Id,
    ...
}

Modulation ::= ENUMERATED {
    qPSK,
    eightPSK,
    ...
}

Multiple-PLMN-List ::= SEQUENCE {
    pLMN-Identity      PLMN-Identity,
    list-Of-PLMNs      List-Of-PLMNs                                                   OPTIONAL,
    iE-Extensions      ProtocolExtensionContainer { { Multiple-PLMN-List-ExtIEs} } OPTIONAL,
    ...

}

Multiple-PLMN-List-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MultiplexingPosition ::= ENUMERATED {
    fixed,
    flexible
}

MAChs-ResetIndicator ::= ENUMERATED{
    mAChs-NotReset
```

```
}

MultipleFreq-HSPDSCH-InformationList-ResponseTDDLCR ::= SEQUENCE (SIZE (1.. maxHSDPAFrequency-1)) OF MultipleFreq-HSPDSCH-InformationItem-
ResponseTDDLCR
--Includes the 2nd through the max number of frequency repetitions

MultipleFreq-HSPDSCH-InformationItem-ResponseTDDLCR ::= SEQUENCE{
    hSSCCH-TDD-Specific-InfoList-Response-LCR         HSSCCH-TDD-Specific-InfoList-Response-LCR    OPTIONAL,
    hARQ-MemoryPartitioning                           HARQ-MemoryPartitioning                      OPTIONAL,
    uARFCN                                            UARFCN,
    -- This is the UARFCN for the second and beyond Frequency repetition.
    iE-Extensions                                     ProtocolExtensionContainer { { MultipleFreq-HSPDSCH-InformationItem-ResponseTDDLCR-ExtIEs } }
        OPTIONAL,
    ...
}

MultipleFreq-HSPDSCH-InformationItem-ResponseTDDLCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}


-- N

NACC-Related-Data ::= SEQUENCE {
    gERAN-SI-Type              GERAN-SI-Type,
    iE-Extensions              ProtocolExtensionContainer { {NACC-Related-Data-ExtIEs} }      OPTIONAL,
    ...
    }

NACC-Related-Data-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


Nack-Power-Offset ::= INTEGER (0..8,...)
-- According to mapping in ref. [21] subclause 4.2.1

NCC ::= BIT STRING (SIZE (3))

Neighbouring-UMTS-CellInformation ::= SEQUENCE (SIZE (1..maxNrOfNeighbouringRNCs)) OF ProtocolIE-Single-Container {{ Neighbouring-UMTS-
CellInformationItemIE }}

Neighbouring-UMTS-CellInformationItemIE RNSAP-PROTOCOL-IES ::= {
    { ID id-Neighbouring-UMTS-CellInformationItem   CRITICALITY ignore  TYPE    Neighbouring-UMTS-CellInformationItem PRESENCE mandatory }
}

Neighbouring-UMTS-CellInformationItem ::= SEQUENCE {
    rNC-ID                              RNC-ID,
    cN-PS-DomainIdentifier              CN-PS-DomainIdentifier      OPTIONAL,
    cN-CS-DomainIdentifier              CN-CS-DomainIdentifier      OPTIONAL,
    neighbouring-FDD-CellInformation    Neighbouring-FDD-CellInformation    OPTIONAL,
    neighbouring-TDD-CellInformation    Neighbouring-TDD-CellInformation    OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { {Neighbouring-UMTS-CellInformationItem-ExtIEs} } OPTIONAL,
    ...
```

```
}

Neighbouring-UMTS-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-neighbouring-LCR-TDD-CellInformation              CRITICALITY ignore     EXTENSION  Neighbouring-LCR-TDD-CellInformation        PRESENCE
optional }|
    { ID id-Extended-RNC-ID                         CRITICALITY reject  EXTENSION Extended-RNC-ID
    PRESENCE optional },
    ...
}

Neighbouring-FDD-CellInformation ::= SEQUENCE ( SIZE (1..maxNrOfFDDNeighboursPerRNC,...)) OF Neighbouring-FDD-CellInformationItem

Neighbouring-FDD-CellInformationItem ::= SEQUENCE {
    c-ID                            C-ID,
    uARFCNforNu                     UARFCN,
    uARFCNforNd                     UARFCN,
    frameOffset                     FrameOffset        OPTIONAL,
    primaryScramblingCode           PrimaryScramblingCode,
    primaryCPICH-Power              PrimaryCPICH-Power     OPTIONAL,
    cellIndividualOffset            CellIndividualOffset   OPTIONAL,
    txDiversityIndicator            TxDiversityIndicator,
    sTTD-SupportIndicator           STTD-SupportIndicator  OPTIONAL,
    closedLoopMode1-SupportIndicator    ClosedLoopMode1-SupportIndicator    OPTIONAL,
    not-used-closedLoopMode2-SupportIndicator   NULL    OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { Neighbouring-FDD-CellInformationItem-ExtIEs} } OPTIONAL,
    ...
}

Neighbouring-FDD-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RestrictionStateIndicator               CRITICALITY ignore          EXTENSION RestrictionStateIndicator    PRESENCE optional }|
    { ID id-DPC-Mode-Change-SupportIndicator    CRITICALITY ignore     EXTENSION  DPC-Mode-Change-SupportIndicator      PRESENCE optional }|
    { ID id-CoverageIndicator               CRITICALITY ignore          EXTENSION CoverageIndicator            PRESENCE optional }|
    { ID id-AntennaColocationIndicator      CRITICALITY ignore          EXTENSION AntennaColocationIndicator    PRESENCE optional }|
    { ID id-HCS-Prio                        CRITICALITY ignore          EXTENSION HCS-Prio                      PRESENCE optional }|
    { ID id-CellCapabilityContainer-FDD     CRITICALITY ignore          EXTENSION  CellCapabilityContainer-FDD        PRESENCE optional }|
    { ID id-SNA-Information                  CRITICALITY ignore          EXTENSION SNA-Information        PRESENCE optional }|
    { ID id-FrequencyBandIndicator          CRITICALITY ignore          EXTENSION FrequencyBandIndicator         PRESENCE optional }|
    { ID id-Max-UE-DTX-Cycle                CRITICALITY ignore          EXTENSION  Max-UE-DTX-Cycle               PRESENCE conditional }|
    -- This IE shall be present if the the fifteenth bit Continuous Packet Connectivity DTX-DRX Support Indicator in the Cell Capability Container
FDD IE is set to the value "1".
    { ID id-Multiple-PLMN-List              CRITICALITY ignore          EXTENSION Multiple-PLMN-List            PRESENCE optional },
    ...
}

NeighbouringFDDCellMeasurementInformation ::= SEQUENCE {
    uC-ID                           UC-ID,
    uARFCN                          UARFCN,
    primaryScramblingCode           PrimaryScramblingCode,
    iE-Extensions                   ProtocolExtensionContainer { { NeighbouringFDDCellMeasurementInformationItem-ExtIEs} } OPTIONAL,
    ...
}

NeighbouringFDDCellMeasurementInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

Neighbouring-GSM-CellInformation ::= ProtocolIE-Single-Container {{ Neighbouring-GSM-CellInformationIE }}

Neighbouring-GSM-CellInformationIE RNSAP-PROTOCOL-IES ::= {
    { ID id-Neighbouring-GSM-CellInformation    CRITICALITY ignore  TYPE    Neighbouring-GSM-CellInformationIEs PRESENCE mandatory }
}

Neighbouring-GSM-CellInformationIEs ::= SEQUENCE ( SIZE (1..maxNrOfGSMNeighboursPerRNC,...)) OF Neighbouring-GSM-CellInformationItem

Neighbouring-GSM-CellInformationItem ::= SEQUENCE {
    cGI                          CGI,
    cellIndividualOffset         CellIndividualOffset    OPTIONAL,
    bSIC                         BSIC,
    band-Indicator               Band-Indicator,
    bCCH-ARFCN                   BCCH-ARFCN,
    iE-Extensions                ProtocolExtensionContainer { { Neighbouring-GSM-CellInformationItem-ExtIEs} } OPTIONAL,
    ...
}

Neighbouring-GSM-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-CoverageIndicator              CRITICALITY ignore        EXTENSION CoverageIndicator               PRESENCE optional } |
    { ID id-AntennaColocationIndicator     CRITICALITY ignore        EXTENSION AntennaColocationIndicator       PRESENCE optional } |
    { ID id-HCS-Prio                       CRITICALITY ignore        EXTENSION HCS-Prio                         PRESENCE optional } |
    { ID id-SNA-Information                 CRITICALITY ignore        EXTENSION SNA-Information                   PRESENCE optional } |
    { ID id-GERAN-Cell-Capability          CRITICALITY ignore        EXTENSION GERAN-Cell-Capability            PRESENCE optional } |
    { ID id-GERAN-Classmark                CRITICALITY ignore        EXTENSION GERAN-Classmark                  PRESENCE optional } |
    { ID id-ExtendedGSMCellIndividualOffset CRITICALITY ignore       EXTENSION ExtendedGSMCellIndividualOffset  PRESENCE optional },
    ...
}

Neighbouring-TDD-CellInformation ::= SEQUENCE ( SIZE (1..maxNrOfTDDNeighboursPerRNC,...)) OF Neighbouring-TDD-CellInformationItem

Neighbouring-TDD-CellInformationItem ::= SEQUENCE {
    c-ID                         C-ID,
    uARFCNforNt                  UARFCN,
    frameOffset                  FrameOffset         OPTIONAL,
    cellParameterID              CellParameterID,
    syncCase                     SyncCase,
    timeSlot                     TimeSlot            OPTIONAL
    -- This IE shall be present if Sync Case = Case1 -- ,
    sCH-TimeSlot                 SCH-TimeSlot           OPTIONAL
    -- This IE shall be present if Sync Case = Case2 -- ,
    sCTD-Indicator        SCTD-Indicator,
    cellIndividualOffset         CellIndividualOffset   OPTIONAL,
    dPCHConstantValue            DPCHConstantValue   OPTIONAL,
    pCCPCH-Power                 PCCPCH-Power           OPTIONAL,
    iE-Extensions                ProtocolExtensionContainer { { Neighbouring-TDD-CellInformationItem-ExtIEs} } OPTIONAL,
    ...
}

Neighbouring-TDD-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RestrictionStateIndicator              CRITICALITY ignore        EXTENSION RestrictionStateIndicator    PRESENCE optional }|
    { ID id-CoverageIndicator                      CRITICALITY ignore        EXTENSION CoverageIndicator            PRESENCE optional }|
```

```
    { ID id-AntennaColocationIndicator      CRITICALITY ignore            EXTENSION AntennaColocationIndicator     PRESENCE optional }|
    { ID id-HCS-Prio                        CRITICALITY ignore            EXTENSION HCS-Prio                       PRESENCE optional }|
    { ID id-CellCapabilityContainer-TDD              CRITICALITY ignore EXTENSION   CellCapabilityContainer-TDD        PRESENCE optional }|
    { ID id-SNA-Information                           CRITICALITY ignore EXTENSION SNA-Information                  PRESENCE optional }|
    { ID id-CellCapabilityContainer-TDD768             CRITICALITY ignore EXTENSION   CellCapabilityContainer-TDD768      PRESENCE optional }|
    { ID id-Multiple-PLMN-List              CRITICALITY ignore            EXTENSION Multiple-PLMN-List             PRESENCE optional },
    ...
}


NeighbouringTDDCellMeasurementInformation ::= SEQUENCE {
    uC-ID                           UC-ID,
    uARFCN                          UARFCN,
    cellParameterID                 CellParameterID,
    timeSlot                        TimeSlot                OPTIONAL,
    midambleShiftAndBurstType       MidambleShiftAndBurstType   OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { NeighbouringTDDCellMeasurementInformationItem-ExtIEs} } OPTIONAL,
    ...
}


NeighbouringTDDCellMeasurementInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


NeighbouringTDDCellMeasurementInformationLCR ::= SEQUENCE {
    uC-ID                           UC-ID,
    uARFCN                          UARFCN,
    cellParameterID                 CellParameterID,
    timeSlotLCR                     TimeSlotLCR             OPTIONAL,
    midambleShiftLCR                MidambleShiftLCR        OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { NeighbouringTDDCellMeasurementInformationLCRItem-ExtIEs} } OPTIONAL,
    ...
}


NeighbouringTDDCellMeasurementInformationLCRItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


NeighbouringTDDCellMeasurementInformation768 ::= SEQUENCE {
    uC-ID                           UC-ID,
    uARFCN                          UARFCN,
    cellParameterID                 CellParameterID,
    timeSlot                        TimeSlot                OPTIONAL,
    midambleShiftAndBurstType768    MidambleShiftAndBurstType768   OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { NeighbouringTDDCellMeasurementInformationItem768-ExtIEs} } OPTIONAL,
    ...
}


NeighbouringTDDCellMeasurementInformationItem768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


Neighbouring-LCR-TDD-CellInformation ::= SEQUENCE (SIZE (1.. maxNrOfLCRTDDNeighboursPerRNC,...)) OF Neighbouring-LCR-TDD-CellInformationItem
```

```
Neighbouring-LCR-TDD-CellInformationItem ::= SEQUENCE {
    c-ID                          C-ID,
    uARFCNforNt                   UARFCN,
    frameOffset                   FrameOffset        OPTIONAL,
    cellParameterID               CellParameterID,
    sCTD-Indicator          SCTD-Indicator,
    cellIndividualOffset          CellIndividualOffset   OPTIONAL,
    dPCHConstantValue             DPCHConstantValue   OPTIONAL,
    pCCPCH-Power                  PCCPCH-Power            OPTIONAL,
    restrictionStateIndicator     RestrictionStateIndicator     OPTIONAL,
    iE-Extensions                 ProtocolExtensionContainer { { Neighbouring-LCR-TDD-CellInformationItem-ExtIEs} } OPTIONAL,
    ...
}

Neighbouring-LCR-TDD-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-CoverageIndicator             CRITICALITY ignore     EXTENSION    CoverageIndicator              PRESENCE optional }|
    { ID id-AntennaColocationIndicator    CRITICALITY ignore     EXTENSION    AntennaColocationIndicator     PRESENCE optional }|
    { ID id-HCS-Prio                      CRITICALITY ignore     EXTENSION    HCS-Prio                       PRESENCE optional }|
    { ID id-CellCapabilityContainer-TDD-LCR CRITICALITY ignore   EXTENSION    CellCapabilityContainer-TDD-LCR   PRESENCE optional }|
    { ID id-SNA-Information                CRITICALITY ignore     EXTENSION    SNA-Information                PRESENCE optional }|
    { ID id-Multiple-PLMN-List             CRITICALITY ignore     EXTENSION    Multiple-PLMN-List             PRESENCE optional },
    ...
}

NotProvidedCellList ::= SEQUENCE (SIZE (1..maxNrOfCells)) OF MBMSChannelTypeCellList

NrOfDLchannelisationcodes    ::= INTEGER (1..8)

NrOfTransportBlocks         ::= INTEGER (0..512)

NRT-Load-Information-Value-IncrDecrThres ::= INTEGER(0..3)

NRT-Load-Information-Value ::= INTEGER(0..3)

NRTLoadInformationValue ::= SEQUENCE {
        uplinkNRTLoadInformationValue       INTEGER(0..3),
        downlinkNRTLoadInformationValue     INTEGER(0..3)
}

N-E-UCCH ::= INTEGER (1..12)

N-E-UCCH-LCR ::= INTEGER (1..8)

Number-Of-Supported-Carriers  ::= ENUMERATED {
    one-one-carrier,
    one-three-carrier,
    three-three-carrier,
    one-six-carrier,
    three-six-carrier,
    six-six-carrier,
    ...
}
```

```
-- O

OnModification ::= SEQUENCE {
    measurementThreshold    MeasurementThreshold,
    iE-Extensions           ProtocolExtensionContainer { {OnModification-ExtIEs} } OPTIONAL,
    ...
}

OnModification-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {

    ...
}

OnModificationInformation ::= SEQUENCE {
    informationThreshold    InformationThreshold    OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { {OnModificationInformation-ExtIEs} } OPTIONAL,
    ...
}

OnModificationInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {

    ...
}

-- P

PagingCause ::= ENUMERATED {
    terminating-conversational-call,
    terminating-streaming-call,
    terminating-interactive-call,
    terminating-background-call,
    terminating-low-priority-signalling,
    ...,
    terminating-high-priority-signalling,
    terminating-cause-unknown
}
-- See in [16]

PagingRecordType ::= ENUMERATED {
    imsi-gsm-map,
    tmsi-gsm-map,
    p-tmsi-gsm-map,
    imsi-ds-41,
    tmsi-ds-41,
    ...
}
-- See in [16]

PartialReportingIndicator ::= ENUMERATED {
    partial-reporting-allowed
}

PayloadCRC-PresenceIndicator ::= ENUMERATED {
    crc-included,
```

```
        crc-not-included
}

PCCPCH-Power ::= INTEGER (-150..400,...)
-- PCCPCH-power = power * 10
-- If power <= -15 PCCPCH shall be set to -150
-- If power >= 40 PCCPCH shall be set to 400
-- Unit dBm, Range -15dBm .. +40 dBm, Step 0.1dBm

PCH-InformationList ::= SEQUENCE (SIZE(0..1)) OF PCH-InformationItem

PCH-InformationItem ::= SEQUENCE {
    transportFormatSet              TransportFormatSet,
    iE-Extensions                   ProtocolExtensionContainer { { PCH-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

PCH-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

PC-Preamble ::= INTEGER(0..7,...)

Periodic ::= SEQUENCE {
    reportPeriodicity       ReportPeriodicity,
    iE-Extensions           ProtocolExtensionContainer { {Periodic-ExtIEs} } OPTIONAL,
    ...
}

Periodic-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

PeriodicInformation ::= SEQUENCE {
    informationReportPeriodicity        InformationReportPeriodicity,
    iE-Extensions                       ProtocolExtensionContainer { {PeriodicInformation-ExtIEs} } OPTIONAL,
    ...
}

PeriodicInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Permanent-NAS-UE-Identity ::= CHOICE {
    imsi        IMSI,
    ...
}

Phase-Reference-Update-Indicator ::= ENUMERATED {
    phase-reference-needs-to-be-changed
}

PLCCHsequenceNumber ::= INTEGER (0..14)
```

```
PLMN-Identity ::= OCTET STRING (SIZE(3))

PowerAdjustmentType ::= ENUMERATED {
    none,
    common,
    individual
}

PowerOffset             ::= INTEGER (0..24)

PRC ::= INTEGER (-2047..2047)
--pseudo range correction; scaling factor 0.32 meters

PRCDeviation ::= ENUMERATED {
    prcd1,
    prcd2,
    prcd5,
    prcd10,
    ...
}

Pre-emptionCapability ::= ENUMERATED {
    shall-not-trigger-pre-emption,
    may-trigger-pre-emption
}

Pre-emptionVulnerability ::= ENUMERATED {
    not-pre-emptable,
    pre-emptable
}

PredictedSFNSFNDeviationLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip

PredictedTUTRANGPSDeviationLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip

PreferredFrequencyLayerInfo ::= SEQUENCE {
    defaultPreferredFrequency       UARFCN,
    additionalPreferredFrequency    AdditionalPreferredFrequency    OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { PreferredFrequencyLayerInfo-ExtIEs} } OPTIONAL,
    ...
}
PreferredFrequencyLayerInfo-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


PrimaryCPICH-Power          ::= INTEGER (-100..500)
-- step 0.1 (Range -10.0..50.0) Unit is dBm

PrimaryCPICH-EcNo           ::= INTEGER (-30..30)

Primary-CPICH-Usage-For-Channel-Estimation ::= ENUMERATED {
```

```
    primary-CPICH-may-be-used,
    primary-CPICH-shall-not-be-used
}

PrimaryCCPCH-RSCP              ::= INTEGER (0..91)
-- Mapping of Non Negative values according to maping in [24]


PrimaryCCPCH-RSCP-Delta      ::= INTEGER (-5..-1,...)
-- Mapping of Negative values according to maping in [24]


PrimaryScramblingCode         ::= INTEGER (0..511)


PriorityLevel              ::= INTEGER (0..15)
-- 0 = spare, 1 = highest priority, ...14 = lowest priority and 15 = no priority


PriorityQueue-Id ::= INTEGER (0..maxNrOfPrioQueues-1)


PriorityQueue-InfoList ::= SEQUENCE (SIZE (1..maxNrOfPrioQueues)) OF PriorityQueue-InfoItem


PriorityQueue-InfoItem ::= SEQUENCE {
    priorityQueue-Id               PriorityQueue-Id,
    associatedHSDSCH-MACdFlow      HSDSCH-MACdFlow-ID,
    schedulingPriorityIndicator    SchedulingPriorityIndicator,
    t1                             T1,
    discardTimer                   DiscardTimer             OPTIONAL,
    mAC-hsWindowSize               MAC-hsWindowSize,
    mAChsGuaranteedBitRate         MAChsGuaranteedBitRate      OPTIONAL,
    mACdPDU-Size-Index             MACdPDU-Size-IndexList,
    rLC-Mode                       RLC-Mode,
    iE-Extensions                  ProtocolExtensionContainer { { PriorityQueue-InfoItem-ExtIEs } }       OPTIONAL,
    ...
}

PriorityQueue-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-MaximumMACdPDU-SizeExtended    CRITICALITY reject     EXTENSION   MAC-PDU-SizeExtended  PRESENCE optional},
    ...
}

PriorityQueue-InfoList-EnhancedFACH-PCH ::= SEQUENCE (SIZE (1..maxNrOfPrioQueues)) OF PriorityQueue-InfoItem-EnhancedFACH-PCH


PriorityQueue-InfoItem-EnhancedFACH-PCH ::= SEQUENCE {
    priorityQueue-Id               PriorityQueue-Id,
    schedulingPriorityIndicator    SchedulingPriorityIndicator,
    t1                             T1,
    mAC-ehs-Reset-Timer            MAC-ehs-Reset-Timer,
    discardTimer                   DiscardTimer                       OPTIONAL,
    mAC-hsWindowSize               MAC-hsWindowSize,
    maximum-MACdPDU-Size           MAC-PDU-SizeExtended,
    iE-Extensions                  ProtocolExtensionContainer { { PriorityQueue-InfoItem-EnhancedFACH-PCH-ExtIEs } }     OPTIONAL,
    ...
}

PriorityQueue-InfoItem-EnhancedFACH-PCH-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
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```
}

PriorityQueue-InfoList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfPrioQueues)) OF ModifyPriorityQueue

PriorityQueue-InfoItem-to-Add ::= SEQUENCE {
    priorityQueue-Id                   PriorityQueue-Id,
    associatedHSDSCH-MACdFlow          HSDSCH-MACdFlow-ID,
    schedulingPriorityIndicator        SchedulingPriorityIndicator,
    t1                                 T1,
    discardTimer                       DiscardTimer                             OPTIONAL,
    mAC-hsWindowSize                   MAC-hsWindowSize,
    mAChsGuaranteedBitRate             MAChsGuaranteedBitRate                   OPTIONAL,
    mACdPDU-Size-Index                 MACdPDU-Size-IndexList,
    rLC-Mode                           RLC-Mode,
    iE-Extensions                      ProtocolExtensionContainer { { PriorityQueue-InfoItem-to-Add-ExtIEs } }    OPTIONAL,
    ...
}

PriorityQueue-InfoItem-to-Add-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-MaximumMACdPDU-SizeExtended     CRITICALITY reject     EXTENSION   MAC-PDU-SizeExtended  PRESENCE optional},
    ...
}

PriorityQueue-InfoItem-to-Modify ::= SEQUENCE {
    priorityQueue-Id                   PriorityQueue-Id,
    schedulingPriorityIndicator        SchedulingPriorityIndicator        OPTIONAL,
    t1                                 T1                                 OPTIONAL,
    discardTimer                       DiscardTimer                       OPTIONAL,
    mAC-hsWindowSize                   MAC-hsWindowSize                   OPTIONAL,
    mAChsGuaranteedBitRate             MAChsGuaranteedBitRate             OPTIONAL,
    mACdPDU-Size-Index-to-Modify       MACdPDU-Size-IndexList-to-Modify                   OPTIONAL,
    iE-Extensions                      ProtocolExtensionContainer { { PriorityQueue-InfoItem-to-Modify-ExtIEs } }    OPTIONAL,
    ...
}

PriorityQueue-InfoItem-to-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{ ID id-MaximumMACdPDU-SizeExtended     CRITICALITY reject     EXTENSION   MAC-PDU-SizeExtended  PRESENCE optional},
    ...
}

PriorityQueue-InfoList-to-Modify-Unsynchronised ::= SEQUENCE (SIZE (0..maxNrOfPrioQueues)) OF PriorityQueue-InfoItem-to-Modify-Unsynchronised

PriorityQueue-InfoItem-to-Modify-Unsynchronised ::= SEQUENCE {
    priorityQueueId                    PriorityQueue-Id,
    schedulingPriorityIndicator        SchedulingPriorityIndicator                                OPTIONAL,
    discardTimer                       DiscardTimer                                               OPTIONAL,
    mAChsGuaranteedBitRate             MAChsGuaranteedBitRate                                     OPTIONAL,
    iE-Extensions                      ProtocolExtensionContainer { { PriorityQueue-InfoItem-to-Modify-Unsynchronised-ExtIEs} }    OPTIONAL,
    ...
}

PriorityQueue-InfoItem-to-Modify-Unsynchronised-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

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```
PropagationDelay          ::= INTEGER (0..255)

ProvidedInformation ::= SEQUENCE {
    mBMSChannelTypeInfo      MBMSChannelTypeInfo        OPTIONAL,
    mBMSPreferredFreqLayerInfo  MBMSPreferredFreqLayerInfo      OPTIONAL,
    iE-Extensions                 ProtocolExtensionContainer { { ProvideInformation-ExtIEs} } OPTIONAL,
    ...
}
ProvideInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UpPCH-InformationList-LCRTDD   CRITICALITY ignore    EXTENSION  UpPCH-InformationList-LCRTDD       PRESENCE optional},
    -- Applicable to 1.28Mcps TDD only
    ...
}


UpPCH-InformationList-LCRTDD ::= SEQUENCE (SIZE (0.. maxFrequencyinCell)) OF ProtocolIE-Single-Container {{ UpPCH-InformationItemIE-LCRTDD }}

UpPCH-InformationItemIE-LCRTDD RNSAP-PROTOCOL-IES ::= {
    { ID   id-UpPCH-InformationItem-LCRTDD CRITICALITY ignore  TYPE UpPCH-InformationItem-LCRTDD               PRESENCE mandatory},
    ...
}

UpPCH-InformationItem-LCRTDD ::= SEQUENCE {
    uARFCNforNt              UARFCN                OPTIONAL,
    uPPCHPositionLCR         UPPCHPositionLCR       OPTIONAL,
    iE-Extensions            ProtocolExtensionContainer { { UpPCH-InformationItem-LCRTDD-ExtIEs} }                 OPTIONAL,
    ...
}

UpPCH-InformationItem-LCRTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

PunctureLimit             ::= INTEGER (0..15)
-- 0: 40%; 1: 44%; ... 14: 96%; 15: 100
-- 0 is not applicable for E-DPCH


PTMCellList ::= SEQUENCE (SIZE (1..maxNrOfCells)) OF MBMSChannelTypeCellList

PTPCellList ::= SEQUENCE (SIZE (1..maxNrOfCells)) OF MBMSChannelTypeCellList


-- Q

QE-Selector ::= ENUMERATED {
    selected,
    non-selected
}

-- R

RAC                ::= OCTET STRING (SIZE(1))
```

```
RANAP-RelocationInformation     ::= BIT STRING


Range-Correction-Rate ::= INTEGER (-127..127)
-- scaling factor 0.032 m/s


RateMatchingAttribute           ::= INTEGER (1..maxRateMatching)


RB-Identity                     ::= INTEGER (0..31)


RB-Info ::= SEQUENCE (SIZE(1..maxNoOfRB)) OF RB-Identity


Received-Total-Wideband-Power-Value ::= Received-total-wide-band-power


Received-Total-Wideband-Power-Value-IncrDecrThres ::= INTEGER(0..620)
-- Unit dB Step 0.1dB
-- e.g. value 100 means 10dB


Reference-E-TFCI-Information ::= SEQUENCE (SIZE (1..maxNrOfRefETFCIs)) OF Reference-E-TFCI-Information-Item


Reference-E-TFCI-Information-Item ::= SEQUENCE {
    reference-E-TFCI               E-TFCI,
    -- The following IE shall be ignored if id-Ext-Reference-E-TFCI-PO is present in Reference-E-TFCI-Information-Item-ExtIEs
    reference-E-TFCI-PO            Reference-E-TFCI-PO,
    iE-Extensions                 ProtocolExtensionContainer { { Reference-E-TFCI-Information-Item-ExtIEs} }     OPTIONAL,
    ...
}


Reference-E-TFCI-Information-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    -- The following IE shall be present if the ref E-TFCI power offset to be signalled exceeds maxNrOfRefETFCI-PO-QUANTSTEPs
    { ID id-Ext-Reference-E-TFCI-PO     CRITICALITY reject     EXTENSION   Ext-Reference-E-TFCI-PO     PRESENCE optional},
    ...
}


Reference-E-TFCI-PO ::= INTEGER (0.. maxNrOfRefETFCI-PO-QUANTSTEPs)


RefTFCNumber ::= INTEGER (0..15)


RepetitionLength            ::= INTEGER (1..63)


RepetitionPeriod ::= ENUMERATED {
    v1,
    v2,
    v4,
    v8,
    v16,
    v32,
    v64
}


RepetitionNumber0 ::= INTEGER (0..255)


RepetitionNumber1 ::= INTEGER (1..256)
```

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```
ReportCharacteristics ::= CHOICE {
    onDemand            NULL,
    periodic            Periodic,
    eventA              EventA,
    eventB              EventB,
    eventC              EventC,
    eventD              EventD,
    eventE              EventE,
    eventF              EventF,
    ...,
    extension-ReportCharacteristics    Extension-ReportCharacteristics
}

Extension-ReportCharacteristics ::= ProtocolIE-Single-Container {{ Extension-ReportCharacteristicsIE }}

Extension-ReportCharacteristicsIE RNSAP-PROTOCOL-IES ::= {
    { ID id-OnModification  CRITICALITY reject  TYPE OnModification    PRESENCE mandatory }
}

ReportPeriodicity ::= CHOICE {
    ten-msec              INTEGER (1..6000,...),
-- The Report Periodicity gives the reporting periodicity in number of 10 ms periods.
-- E.g. value 6000 means 60000ms (i.e. 1min)
-- Unit ms, Step 10ms
    min               INTEGER (1..60,...),
-- Unit min, Step 1min
    ...
}

RequestedDataValue ::= SEQUENCE {
    gA-AccessPointPositionwithAltitude         GA-AccessPointPositionwithOptionalAltitude  OPTIONAL,
    iPDLParameters                             IPDLParameters                             OPTIONAL,
    dGPSCorrections                            DGPSCorrections                            OPTIONAL,
    gPS-NavigationModel-and-TimeRecovery       GPS-NavigationModel-and-TimeRecovery       OPTIONAL,
    gPS-Ionospheric-Model                      GPS-Ionospheric-Model                      OPTIONAL,
    gPS-UTC-Model                              GPS-UTC-Model                              OPTIONAL,
    gPS-Almanac                                GPS-Almanac                                OPTIONAL,
    gPS-RealTime-Integrity                     GPS-RealTime-Integrity                     OPTIONAL,
    gPS-RX-POS                                 GPS-RX-POS                                 OPTIONAL,
    sFNSFN-GA-AccessPointPosition              GA-AccessPointPositionwithOptionalAltitude  OPTIONAL,
    iE-Extensions                              ProtocolExtensionContainer { { RequestedDataValue-ExtIEs} }     OPTIONAL,
    ...
}

RequestedDataValue-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Cell-Capacity-Class-Value                CRITICALITY ignore  EXTENSION Cell-Capacity-Class-Value                PRESENCE optional }|
    { ID id-NACC-Related-Data                        CRITICALITY ignore  EXTENSION NACC-Related-Data                        PRESENCE optional }|
    { ID id-MBMS-Bearer-Service-Full-Address         CRITICALITY ignore  EXTENSION MBMS-Bearer-Service-Full-Address         PRESENCE optional }|
    { ID id-Inter-Frequency-Cell-Information         CRITICALITY ignore  EXTENSION  Inter-Frequency-Cell-Information         PRESENCE optional }|
    { ID id-GANSS-Common-Data                        CRITICALITY ignore  EXTENSION GANSS-Common-Data                        PRESENCE optional }|
    { ID id-GANSS-Generic-Data                       CRITICALITY ignore  EXTENSION GANSS-Generic-Data                       PRESENCE optional },
    ...
}
```

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```
RequestedDataValueInformation ::= CHOICE {
    informationAvailable        InformationAvailable,
    informationNotAvailable     InformationNotAvailable
}

RestrictionStateIndicator    ::= ENUMERATED {
    cellNotResevedForOperatorUse,
    cellResevedForOperatorUse,
    ...
}

RL-ID                      ::= INTEGER (0..31)

RL-Set-ID                  ::= INTEGER (0..31)

RL-Specific-DCH-Info ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF RL-Specific-DCH-Info-Item

RL-Specific-DCH-Info-Item ::= SEQUENCE {
    dCH-id               DCH-ID,
    bindingID            BindingID OPTIONAL,
    -- Shall be ignored if bearer establishment with ALCAP.
    transportLayerAddress    TransportLayerAddress       OPTIONAL,
    -- Shall be ignored if bearer establishment with ALCAP.
    iE-Extensions        ProtocolExtensionContainer { { RL-Specific-DCH-Info-Item-ExtIEs} }  OPTIONAL,
    ...
}

RL-Specific-DCH-Info-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TransportBearerNotRequestedIndicator    CRITICALITY ignore  EXTENSION TransportBearerNotRequestedIndicator   PRESENCE optional }, --
FDD only
    ...
}

RL-Specific-EDCH-Information ::= SEQUENCE {
    rL-Specific-EDCH-Info    RL-Specific-EDCH-Info,
    e-AGCH-PowerOffset       E-AGCH-PowerOffset                                            OPTIONAL,
    e-RGCH-PowerOffset       E-RGCH-PowerOffset                                            OPTIONAL,
    e-HICH-PowerOffset       E-HICH-PowerOffset                                            OPTIONAL,
    iE-Extensions            ProtocolExtensionContainer { { RL-Specific-EDCH-Information-Item-ExtIEs} }  OPTIONAL,
    ...
}


RL-Specific-EDCH-Information-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


RL-Specific-EDCH-Info ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF RL-Specific-EDCH-InfoItem

RL-Specific-EDCH-InfoItem ::= SEQUENCE {
    eDCH-MACdFlow-ID                  EDCH-MACdFlow-ID,
    bindingID                         BindingID        OPTIONAL,
    -- Shall be ignored if bearer establishment with ALCAP.
```

```
    transportLayerAddress              TransportLayerAddress       OPTIONAL,
    -- Shall be ignored if bearer establishment with ALCAP.
    iE-Extensions          ProtocolExtensionContainer { { RL-Specific-EDCH-Info-Item-ExtIEs} } OPTIONAL,
    ...
}

RL-Specific-EDCH-Info-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TransportBearerNotRequestedIndicator   CRITICALITY ignore  EXTENSION TransportBearerNotRequestedIndicator   PRESENCE optional }, --
FDD only
    ...
}

RLC-Mode     ::= ENUMERATED {
    rLC-AM,
    rLC-UM,
    ...
}

RNC-ID                 ::= INTEGER (0..4095)

Round-Trip-Time-IncrDecrThres ::= INTEGER(0..32766)

Round-Trip-Time-Value ::= INTEGER(0..32767)
-- According to mapping in [23]

RSCP-Value ::= INTEGER (0..127)
-- According to mapping in [24]

RSCP-Value-IncrDecrThres ::= INTEGER (0..126)

Received-total-wide-band-power            ::= INTEGER (0..621)
-- According to mapping in [23]

RT-Load-Value-IncrDecrThres ::= INTEGER(0..100)

RT-Load-Value ::= INTEGER(0..100)

RTLoadValue ::= SEQUENCE {
       uplinkRTLoadValue      INTEGER(0..100),
       downlinkRTLoadValue    INTEGER(0..100)
}

RxTimingDeviationForTA            ::= INTEGER (0..127)
-- As specified in [5], ch. 6.2.7.6
-- For 1.28Mcps TDD this IE must be set to 0.

RxTimingDeviationForTAext            ::= INTEGER (0..511)
-- As specified in [5] [3.84 Mcps TDD only]

RxTimingDeviationForTA768            ::= INTEGER (0.. 1023)
-- As specified in [5]

Rx-Timing-Deviation-Value ::= INTEGER (0..8191)
--According to mapping in [24][3.84Mcps TDD only]
```

```
Rx-Timing-Deviation-Value-ext ::= INTEGER (0..32767)
--According to mapping in [24][3.84Mcps TDD only]

Rx-Timing-Deviation-Value-LCR ::= INTEGER (0..511)
--According to mapping in [24][1.28Mcps TDD only]

Rx-Timing-Deviation-Value-768 ::= INTEGER (0..65535)
--According to mapping in [24][7.68Mcps TDD only]

RefBeta ::= INTEGER (-15..16)

-- S

SAC                  ::= OCTET STRING (SIZE (2))

SAI ::= SEQUENCE {
    pLMN-Identity      PLMN-Identity,
    lAC                LAC,
    sAC                SAC,
    iE-Extensions      ProtocolExtensionContainer { {SAI-ExtIEs} } OPTIONAL
}

SAI-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SAT-ID ::= INTEGER (0..63)

SCH-TimeSlot             ::= INTEGER (0..6)

ScaledAdjustmentRatio          ::= INTEGER(0..100)
-- AdjustmentRatio  = ScaledAdjustmentRatio / 100

SchedulingInformation          ::= ENUMERATED {
    included,
    not-included
}

Secondary-CCPCH-Info-TDD::= SEQUENCE {
    dl-TFCS                              TFCS,
    tFCI-Coding                          TFCI-Coding,
    secondary-CCPCH-TDD-InformationList  Secondary-CCPCH-TDD-InformationList,
    fACH-InformationList                 FACH-InformationList,
    pCH-InformationList                  PCH-InformationList,
    iE-Extensions                        ProtocolExtensionContainer { { Secondary-CCPCH-Info-TDD-ExtIEs} } OPTIONAL,
    ...
}

Secondary-CCPCH-Info-TDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CPICH-Information ::= SEQUENCE {
```

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```
    dl-ScramblingCode                       DL-ScramblingCode,
    fDD-DL-ChannelisationCodeNumber         FDD-DL-ChannelisationCodeNumber,
    iE-Extensions                           ProtocolExtensionContainer { { Secondary-CPICH-Information-ExtIEs} } OPTIONAL,
    ...
}

Secondary-CPICH-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CPICH-Information-Change ::= CHOICE {
new-secondary-CPICH             Secondary-CPICH-Information,
secondary-CPICH-shall-not-be-used   NULL,
...
}

Secondary-LCR-CCPCH-Info-TDD::= SEQUENCE {
    dl-TFCS                                 TFCS,
    tFCI-Coding                             TFCI-Coding,
    secondary-LCR-CCPCH-TDD-InformationList Secondary-LCR-CCPCH-TDD-InformationList,
    fACH-InformationList                    FACH-InformationList,
    pCH-InformationList                     PCH-InformationList,
    iE-Extensions                           ProtocolExtensionContainer { { Secondary-LCR-CCPCH-Info-TDD-ExtIEs} } OPTIONAL,
    ...
}

Secondary-LCR-CCPCH-Info-TDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CCPCH-Info-TDD768::= SEQUENCE {
    dl-TFCS                                 TFCS,
    tFCI-Coding                             TFCI-Coding,
    secondary-CCPCH-TDD-InformationList768      Secondary-CCPCH-TDD-InformationList768,
    fACH-InformationList                    FACH-InformationList,
    pCH-InformationList                     PCH-InformationList,
    iE-Extensions                           ProtocolExtensionContainer { { Secondary-CCPCH-Info-TDD768-ExtIEs} } OPTIONAL,
    ...
}

Secondary-CCPCH-Info-TDD768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CCPCH-TDD-InformationList ::= SEQUENCE (SIZE(0.. maxNrOfSCCPCHs)) OF Secondary-CCPCH-TDD-InformationItem

Secondary-CCPCH-TDD-InformationItem ::= SEQUENCE {
    timeSlot                    TimeSlot,
    midambleShiftAndBurstType   MidambleShiftAndBurstType,
    tFCI-Presence               TFCI-Presence,
    secondary-CCPCH-TDD-Code-Information             Secondary-CCPCH-TDD-Code-Information,
    tDD-PhysicalChannelOffset   TDD-PhysicalChannelOffset,
    repetitionLength            RepetitionLength,
    repetitionPeriod            RepetitionPeriod,
```

```
    iE-Extensions                        ProtocolExtensionContainer { { Secondary-CCPCH-TDD-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

Secondary-CCPCH-TDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-LCR-CCPCH-TDD-InformationList ::= SEQUENCE (SIZE(0.. maxNrOfSCCPCHs)) OF Secondary-LCR-CCPCH-TDD-InformationItem

Secondary-LCR-CCPCH-TDD-InformationItem ::= SEQUENCE {
    timeSlotLCR                          TimeSlotLCR,
    midambleShiftLCR                     MidambleShiftLCR,
    tFCI-Presence                        TFCI-Presence,
    secondary-LCR-CCPCH-TDD-Code-Information     Secondary-LCR-CCPCH-TDD-Code-Information,
    tDD-PhysicalChannelOffset            TDD-PhysicalChannelOffset,
    repetitionLength                     RepetitionLength,
    repetitionPeriod                     RepetitionPeriod,
    iE-Extensions                        ProtocolExtensionContainer { { Secondary-LCR-CCPCH-TDD-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

Secondary-LCR-CCPCH-TDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CCPCH-TDD-InformationList768 ::= SEQUENCE (SIZE(0.. maxNrOfSCCPCHs768)) OF Secondary-CCPCH-TDD-InformationItem768

Secondary-CCPCH-TDD-InformationItem768 ::= SEQUENCE {
    timeSlot                     TimeSlot,
    midambleShiftAndBurstType768      MidambleShiftAndBurstType768,
    tFCI-Presence                TFCI-Presence,
    secondary-CCPCH-TDD-Code-Information768          Secondary-CCPCH-TDD-Code-Information768,
    tDD-PhysicalChannelOffset    TDD-PhysicalChannelOffset,
    repetitionLength             RepetitionLength,
    repetitionPeriod             RepetitionPeriod,
    iE-Extensions                ProtocolExtensionContainer { { Secondary-CCPCH-TDD-InformationItem768-ExtIEs} } OPTIONAL,
    ...
}

Secondary-CCPCH-TDD-InformationItem768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CCPCH-TDD-Code-Information ::= SEQUENCE ( SIZE (1..maxNrOfSCCPCHs)) OF Secondary-CCPCH-TDD-Code-InformationItem

Secondary-CCPCH-TDD-Code-InformationItem ::= SEQUENCE {
    tDD-ChannelisationCode       TDD-ChannelisationCode,
    iE-Extensions                ProtocolExtensionContainer { {Secondary-CCPCH-TDD-Code-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

Secondary-CCPCH-TDD-Code-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

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```
}

Secondary-LCR-CCPCH-TDD-Code-Information ::= SEQUENCE ( SIZE (1..maxNrOfSCCPCHs)) OF Secondary-LCR-CCPCH-TDD-Code-InformationItem

Secondary-LCR-CCPCH-TDD-Code-InformationItem ::= SEQUENCE {
    tDD-ChannelisationCodeLCR         TDD-ChannelisationCodeLCR,
    s-CCPCH-TimeSlotFormat-LCR        TDD-DL-DPCH-TimeSlotFormat-LCR,
    iE-Extensions                     ProtocolExtensionContainer { {Secondary-LCR-CCPCH-TDD-Code-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

Secondary-LCR-CCPCH-TDD-Code-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CCPCH-TDD-Code-Information768 ::= SEQUENCE ( SIZE (1..maxNrOfSCCPCHs768)) OF Secondary-CCPCH-TDD-Code-InformationItem768

Secondary-CCPCH-TDD-Code-InformationItem768 ::= SEQUENCE {
    tDD-ChannelisationCode768         TDD-ChannelisationCode768,
    iE-Extensions                     ProtocolExtensionContainer { {Secondary-CCPCH-TDD-Code-InformationItem768-ExtIEs} } OPTIONAL,
    ...
}

Secondary-CCPCH-TDD-Code-InformationItem768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SecondInterleavingMode ::= ENUMERATED {
    frame-related,
    timeslot-related,
    ...
}

Seed ::= INTEGER (0..63)

Service-ID  ::= OCTET STRING (SIZE (3))

SFN ::= INTEGER (0..4095)

SFNSFN-FDD ::= INTEGER(0..614399)

SFNSFN-TDD ::= INTEGER(0..40961)

SFNSFN-TDD768 ::= INTEGER(0..81923)

GA-AccessPointPositionwithOptionalAltitude ::= SEQUENCE {
    geographicalCoordinate                          GeographicalCoordinate,
    altitudeAndDirection                            GA-AltitudeAndDirection  OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { GA-AccessPointPositionwithOptionalAltitude-ExtIEs} } OPTIONAL,
    ...
}

GA-AccessPointPositionwithOptionalAltitude-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

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```
}

SFNSFNChangeLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip

SFNSFNDriftRate ::= INTEGER (-100..100)
-- Unit chip/s, Step 1/256 chip/s, Range -100/256..+100/256 chip/s

SFNSFNDriftRateQuality ::= INTEGER (0..100)
-- Unit chip/s, Step 1/256 chip/s, Range 0..100/256 chip/s

SFNSFNMeasurementThresholdInformation::= SEQUENCE {
    sFNSFNChangeLimit                   SFNSFNChangeLimit                    OPTIONAL,
    predictedSFNSFNDeviationLimit       PredictedSFNSFNDeviationLimit        OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { SFNSFNMeasurementThresholdInformation-ExtIEs} }    OPTIONAL,
    ...
}

SFNSFNMeasurementThresholdInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SFNSFNMeasurementValueInformation ::= SEQUENCE {
    successfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformation      SEQUENCE (SIZE(1..maxNrOfMeasNCell)) OF
        SEQUENCE {
            uC-ID          UC-ID,
            sFNSFNValue                 SFNSFNValue,
            sFNSFNQuality               SFNSFNQuality                       OPTIONAL,
            sFNSFNDriftRate             SFNSFNDriftRate,
            sFNSFNDriftRateQuality      SFNSFNDriftRateQuality     OPTIONAL,
            sFNSFNTimeStampInformation  SFNSFNTimeStampInformation,
            iE-Extensions               ProtocolExtensionContainer { {
SuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs} }     OPTIONAL,
            ...
        },
    unsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformation      SEQUENCE (SIZE(0..maxNrOfMeasNCell-1)) OF
        SEQUENCE {
            uC-ID          UC-ID,
            iE-Extensions       ProtocolExtensionContainer { { UnsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-
ExtIEs} }        OPTIONAL,
            ...
        },
    iE-Extensions       ProtocolExtensionContainer { { SFNSFNMeasurementValueInformationItem-ExtIEs} }     OPTIONAL,
    ...
}

SFNSFNMeasurementValueInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

UnsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SFNSFNQuality ::= INTEGER (0..255)
-- Unit chip, Step 1/16 chip, Range 0.. 255/16 chip


SFNSFNTimeStampInformation ::= CHOICE {
    sFNSFNTimeStamp-FDD     SFN,
    sFNSFNTimeStamp-TDD     SFNSFNTimeStamp-TDD,
    ...
}

SFNSFNTimeStamp-TDD::= SEQUENCE {
    sFN               SFN,
    timeSlot          TimeSlot,
    iE-Extensions               ProtocolExtensionContainer { { SFNSFNTimeStamp-ExtIEs}} OPTIONAL,
    ...
}

SFNSFNTimeStamp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


SFNSFNValue ::= CHOICE {
    sFNSFN-FDD      SFNSFN-FDD,
    sFNSFN-TDD      SFNSFN-TDD,     -- LCR & HCR TDD
    ...,
    sFNSFN-TDD768      SFNSFN-TDD768
}

SID ::= INTEGER (0..maxNrOfPDUIndexes-1)

SIR-Error-Value          ::= INTEGER (0..125)

SIR-Error-Value-IncrDecrThres          ::= INTEGER (0..124)

SIR-Value              ::= INTEGER (0..63)
-- According to mapping in [11]/[14]

SIR-Value-IncrDecrThres ::= INTEGER (0..62)


SixteenQAM-UL-Operation-Indicator ::= ENUMERATED {
    activate,
    deactivate
}
```

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```
SixtyfourQAM-UsageAllowedIndicator ::= ENUMERATED {
    allowed,
    not-allowed
}

SixtyfourQAM-DL-SupportIndicator ::= ENUMERATED {
    sixtyfourQAM-DL-supported,
    sixtyfourQAM-DL-not-supported
}

SixtyfourQAM-DL-UsageIndicator ::= ENUMERATED {
    sixtyfourQAM-DL-used,
    sixtyfourQAM-DL-not-used
}


SignatureSequenceGroupIndex ::= INTEGER (0..19)


SNA-Information ::= SEQUENCE {
    pLMN-Identity    PLMN-Identity,
    listOfSNAs          ListOfSNAs                                  OPTIONAL,
    iE-Extensions       ProtocolExtensionContainer { { SNA-Information-ExtIEs} } OPTIONAL,
    ...
}

SNA-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

ListOfSNAs ::= SEQUENCE (SIZE (1.. maxNrOfSNAs)) OF SNACode


SNACode ::= INTEGER (0..65535)


SpecialBurstScheduling ::= INTEGER (1..256)


S-RNTI                  ::= INTEGER (0..1048575)
-- From 0 to 2^20-1

S-RNTI-Group            ::= SEQUENCE {
    sRNTI                 S-RNTI,
    sRNTI-BitMaskIndex      ENUMERATED {
        b1,
        b2,
        b3,
        b4,
        b5,
        b6,
        b7,
        b8,
        b9,
        b10,
        b11,
        b12,
```

```
        b13,
        b14,
        b15,
        b16,
        b17,
        b18,
        b19,...
    }
}

SRB-Delay ::= INTEGER(0..7,...)



SSDT-SupportIndicator ::= ENUMERATED {
    not-Used-sSDT-supported,
    sSDT-not-supported
}

STTD-SupportIndicator   ::= ENUMERATED {
    sTTD-Supported,
    sTTD-not-Supported
}

Support-8PSK ::= ENUMERATED {
    v8PSK-Supported
}

Support-PLCCH ::= ENUMERATED {
    vPLCCH-Supported
}

SyncCase ::= INTEGER (1..2,...)

SynchronisationConfiguration ::= SEQUENCE {
    n-INSYNC-IND            INTEGER (1..256),
    n-OUTSYNC-IND           INTEGER (1..256),
    t-RLFAILURE             INTEGER (0..255),
-- Unit seconds, Range 0s .. 25.5s, Step 0.1s
    iE-Extensions           ProtocolExtensionContainer { { SynchronisationConfiguration-ExtIEs} }   OPTIONAL,
    ...
}

SynchronisationConfiguration-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SYNC-UL-ProcParameters  ::= SEQUENCE {
    maxSYNC-UL-transmissions        ENUMERATED {v1, v2, v4, v8, ...},
    powerRampStep                   INTEGER (0..3, ...),
    ...
    }

-- T
```

```
T1 ::= ENUMERATED {v10,v20,v30,v40,v50,v60,v70,v80,v90,v100,v120,v140,v160,v200,v300,v400,...}

TDD-AckNack-Power-Offset ::= INTEGER (-7..8,...)
-- Unit dB, Range -7dB .. +8dB, Step 1dB

TDD-ChannelisationCode              ::= ENUMERATED {
    chCode1div1,
    chCode2div1,
    chCode2div2,
    chCode4div1,
    chCode4div2,
    chCode4div3,
    chCode4div4,
    chCode8div1,
    chCode8div2,
    chCode8div3,
    chCode8div4,
    chCode8div5,
    chCode8div6,
    chCode8div7,
    chCode8div8,
    chCode16div1,
    chCode16div2,
    chCode16div3,
    chCode16div4,
    chCode16div5,
    chCode16div6,
    chCode16div7,
    chCode16div8,
    chCode16div9,
    chCode16div10,
    chCode16div11,
    chCode16div12,
    chCode16div13,
    chCode16div14,
    chCode16div15,
    chCode16div16,
    ...
}

TDD-ChannelisationCode768           ::= ENUMERATED {
    chCode1div1,
    chCode2div1,
    chCode2div2,
    chCode4div1,
    chCode4div2,
    chCode4div3,
    chCode4div4,
    chCode8div1,
    chCode8div2,
    chCode8div3,
    chCode8div4,
    chCode8div5,
```

```
    chCode8div6,
    chCode8div7,
    chCode8div8,
    chCode16div1,
    chCode16div2,
    chCode16div3,
    chCode16div4,
    chCode16div5,
    chCode16div6,
    chCode16div7,
    chCode16div8,
    chCode16div9,
    chCode16div10,
    chCode16div11,
    chCode16div12,
    chCode16div13,
    chCode16div14,
    chCode16div15,
    chCode16div16,
    chCode32div1,
    chCode32div2,
    chCode32div3,
    chCode32div4,
    chCode32div5,
    chCode32div6,
    chCode32div7,
    chCode32div8,
    chCode32div9,
    chCode32div10,
    chCode32div11,
    chCode32div12,
    chCode32div13,
    chCode32div14,
    chCode32div15,
    chCode32div16,
    chCode32div17,
    chCode32div18,
    chCode32div19,
    chCode32div20,
    chCode32div21,
    chCode32div22,
    chCode32div23,
    chCode32div24,
    chCode32div25,
    chCode32div26,
    chCode32div27,
    chCode32div28,
    chCode32div29,
    chCode32div30,
    chCode32div31,
    chCode32div32,
    ...
}
```

```
TDD-ChannelisationCodeLCR ::= SEQUENCE {
    tDD-ChannelisationCode          TDD-ChannelisationCode,
    modulation                      Modulation, -- Modulation options for 1.28Mcps TDD in contrast to 3.84Mcps TDD or 7.68Mcps TDD
    ...
}

TDD-DCHs-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF TDD-DCHs-to-ModifyItem

TDD-DCHs-to-ModifyItem ::= SEQUENCE {
    ul-FP-Mode                      UL-FP-Mode  OPTIONAL,
    toAWS                           ToAWS       OPTIONAL,
    toAWE                           ToAWE       OPTIONAL,
    transportBearerRequestIndicator TransportBearerRequestIndicator,
    dCH-SpecificInformationList     TDD-DCHs-to-ModifySpecificInformationList,
    iE-Extensions                   ProtocolExtensionContainer { {TDD-DCHs-to-ModifyItem-ExtIEs} } OPTIONAL,
    ...
}

TDD-DCHs-to-ModifyItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TnlQos                  CRITICALITY   ignore    EXTENSION   TnlQos  PRESENCE optional },
    ...
}

TDD-DCHs-to-ModifySpecificInformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF TDD-DCHs-to-ModifySpecificItem

TDD-DCHs-to-ModifySpecificItem ::=  SEQUENCE {
    dCH-ID                          DCH-ID,
    ul-CCTrCH-ID                    CCTrCH-ID       OPTIONAL,
    dl-CCTrCH-ID                    CCTrCH-ID       OPTIONAL,
    ul-TransportformatSet           TransportFormatSet  OPTIONAL,
    dl-TransportformatSet           TransportFormatSet  OPTIONAL,
    allocationRetentionPriority     AllocationRetentionPriority OPTIONAL,
    frameHandlingPriority           FrameHandlingPriority   OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {TDD-DCHs-to-ModifySpecificItem-ExtIEs} } OPTIONAL,
    ...
}

TDD-DCHs-to-ModifySpecificItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Guaranteed-Rate-Information     CRITICALITY ignore  EXTENSION Guaranteed-Rate-Information      PRESENCE optional }|
    { ID id-TrafficClass        CRITICALITY ignore  EXTENSION TrafficClass      PRESENCE optional},
    ...
}

TDD-DL-Code-Information ::= SEQUENCE ( SIZE (1..maxNrOfDPCHs)) OF TDD-DL-Code-InformationItem

TDD-DL-Code-InformationItem ::= SEQUENCE {
    dPCH-ID                         DPCH-ID,
    tDD-ChannelisationCode          TDD-ChannelisationCode,
    iE-Extensions                   ProtocolExtensionContainer { {TDD-DL-Code-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

TDD-DL-Code-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

TDD-DL-Code-LCR-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHsLCR)) OF TDD-DL-Code-LCR-InformationItem

TDD-DL-Code-LCR-InformationItem ::= SEQUENCE {
    dPCH-ID                           DPCH-ID,
    tdd-ChannelisationCodeLCR         TDD-ChannelisationCodeLCR,
    tdd-DL-DPCH-TimeSlotFormat-LCR    TDD-DL-DPCH-TimeSlotFormat-LCR,
    iE-Extensions                     ProtocolExtensionContainer { { TDD-DL-Code-LCR-InformationItem-ExtIEs} }     OPTIONAL,
    ...
}

TDD-DL-Code-LCR-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-DL-Code-Information768 ::= SEQUENCE ( SIZE (1..maxNrOfDPCHs768)) OF TDD-DL-Code-InformationItem768

TDD-DL-Code-InformationItem768 ::= SEQUENCE {
    dPCH-ID                    DPCH-ID,
    tDD-ChannelisationCode768  TDD-ChannelisationCode768,
    iE-Extensions              ProtocolExtensionContainer { {TDD-DL-Code-InformationItem768-ExtIEs} } OPTIONAL,
    ...
}

TDD-DL-Code-InformationItem768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-DL-DPCH-TimeSlotFormat-LCR ::= CHOICE {
    qPSK                       QPSK-DL-DPCH-TimeSlotFormatTDD-LCR,
    eightPSK                   EightPSK-DL-DPCH-TimeSlotFormatTDD-LCR,
    ...
}

QPSK-DL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..24,...)

EightPSK-DL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..24,...)

TDD-DPCHOffset ::= CHOICE {
    initialOffset      INTEGER (0..255),
    noinitialOffset    INTEGER (0..63)
}

TDD-PhysicalChannelOffset        ::= INTEGER (0..63)

TDD-TPC-DownlinkStepSize ::= ENUMERATED {
    step-size1,
    step-size2,
    step-size3,
    ...
}

TDD-TPC-UplinkStepSize-LCR ::= ENUMERATED {
```

```
    step-size1,
    step-size2,
    step-size3,
    ...
}

TDD-UL-Code-Information ::= SEQUENCE ( SIZE (1..maxNrOfDPCHs)) OF TDD-UL-Code-InformationItem

TDD-UL-Code-InformationItem ::= SEQUENCE {
    dPCH-ID                         DPCH-ID,
    tDD-ChannelisationCode          TDD-ChannelisationCode,
    iE-Extensions                   ProtocolExtensionContainer { {TDD-UL-Code-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

TDD-UL-Code-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-UL-Code-LCR-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHsLCR)) OF TDD-UL-Code-LCR-InformationItem

TDD-UL-Code-LCR-InformationItem ::= SEQUENCE {
    dPCH-ID                         DPCH-ID,
    tdd-ChannelisationCodeLCR       TDD-ChannelisationCodeLCR,
    tdd-UL-DPCH-TimeSlotFormat-LCR  TDD-UL-DPCH-TimeSlotFormat-LCR,
    iE-Extensions                   ProtocolExtensionContainer { { TDD-UL-Code-LCR-InformationItem-ExtIEs} }     OPTIONAL,
    ...
}

TDD-UL-Code-LCR-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-UL-Code-Information768 ::= SEQUENCE ( SIZE (1..maxNrOfDPCHs768)) OF TDD-UL-Code-InformationItem768

TDD-UL-Code-InformationItem768 ::= SEQUENCE {
    dPCH-ID                         DPCH-ID,
    tDD-ChannelisationCode768       TDD-ChannelisationCode768,
    iE-Extensions                   ProtocolExtensionContainer { {TDD-UL-Code-InformationItem768-ExtIEs} } OPTIONAL,
    ...
}

TDD-UL-Code-InformationItem768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-UL-DPCH-TimeSlotFormat-LCR ::= CHOICE {
    qPSK                            QPSK-UL-DPCH-TimeSlotFormatTDD-LCR,
    eightPSK                        EightPSK-UL-DPCH-TimeSlotFormatTDD-LCR,
    ...
}

QPSK-UL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..69,...)
```

```
EightPSK-UL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..24,...)

TFCI-Coding ::= ENUMERATED {
    v4,
    v8,
    v16,
    v32,
    ...
}

TFCI-Presence ::= ENUMERATED {
    present,
    not-present
}

TFCI-SignallingMode ::= ENUMERATED {
    normal,
    not-Used-split
}
-- The value "Not Used" shall not be used by the SRNC. The procedure shall be rejected by the DRNC if the value "Not Used" is received.

TGD              ::= INTEGER (0|15..269)
-- 0 = Undefined, only one transmission gap in the transmission gap pattern sequence

TGPRC            ::= INTEGER (0..511)
-- 0 = infinity

TGPSID           ::= INTEGER (1.. maxTGPS)

TGSN             ::= INTEGER (0..14)

TimeSlot             ::= INTEGER (0..14)

TimeSlotLCR ::= INTEGER (0..6)

TimingAdvanceApplied ::= ENUMERATED {
    yes,
    no
}

SynchronisationIndicator ::= ENUMERATED {
    timingMaintainedSynchronisation,
    ...
}

TMGI    ::= SEQUENCE    {
    plmn-id      PLMN-Identity,
    service-id  Service-ID,
    iE-Extensions                  ProtocolExtensionContainer { { TMGI-ExtIEs} }        OPTIONAL,
    ...
}

TMGI-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

TnlQos ::= CHOICE {
    dsField                 DsField,
    genericTrafficCategory      GenericTrafficCategory,
    ...
}

ToAWE                   ::= INTEGER (0..2559)

ToAWS                   ::= INTEGER (0..1279)

TraceDepth                  ::= ENUMERATED {
    minimum,
    medium,
    maximum,
    ...
}

TraceRecordingSessionReference  ::= INTEGER (0..65535)

TraceReference              ::= OCTET STRING (SIZE (2..3))

TrafficClass ::= ENUMERATED {
    conversational,
    streaming,
    interactive,
    background,
    ...
}

Transmission-Gap-Pattern-Sequence-Information ::= SEQUENCE (SIZE (1..maxTGPS)) OF
    SEQUENCE {
        tGPSID          TGPSID,
        tGSN            TGSN,
        tGL1            GapLength,
        tGL2            GapLength   OPTIONAL,
        tGD             TGD,
        tGPL1           GapDuration,
        not-to-be-used-1            GapDuration OPTIONAL,
            -- This IE shall never be included in the SEQUENCE. If received it shall be ignored
        uL-DL-mode      UL-DL-mode,
        downlink-Compressed-Mode-Method     Downlink-Compressed-Mode-Method     OPTIONAL,
            -- This IE shall be present if the value of the UL/DL mode IE is "DL only" or "UL/DL"
        uplink-Compressed-Mode-Method       Uplink-Compressed-Mode-Method       OPTIONAL,
            -- This IE shall be present if the value of the UL/DL mode IE is "UL only" or "UL/DL"
        dL-FrameType        DL-FrameType,
        delta-SIR1      DeltaSIR,
        delta-SIR-after1    DeltaSIR,
        delta-SIR2      DeltaSIR    OPTIONAL,
        delta-SIR-after2    DeltaSIR    OPTIONAL,
        iE-Extensions           ProtocolExtensionContainer { {Transmission-Gap-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
        ...
    }
```

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```
Transmission-Gap-Pattern-Sequence-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Transmission-Gap-Pattern-Sequence-ScramblingCode-Information    ::= ENUMERATED{
    code-change,
    nocode-change
}

Transmission-Gap-Pattern-Sequence-Status-List ::= SEQUENCE (SIZE (0..maxTGPS)) OF
    SEQUENCE {
        tGPSID          TGPSID,
        tGPRC           TGPRC,
        tGCFN           CFN,
        iE-Extensions       ProtocolExtensionContainer { { Transmission-Gap-Pattern-Sequence-Status-List-ExtIEs } } OPTIONAL,
        ...
}

Transmission-Gap-Pattern-Sequence-Status-List-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransmissionMode    ::=ENUMERATED {
    p-t-p,
    p-t-m,
    not-provided,
    ...
}

TransmissionTimeIntervalDynamic ::= ENUMERATED {
    msec-10,
    msec-20,
    msec-40,
    msec-80,
    ...
}

TransmissionTimeIntervalSemiStatic ::= ENUMERATED {
    msec-10,
    msec-20,
    msec-40,
    msec-80,
    dynamic,
    ...
}

TransmitDiversityIndicator ::= ENUMERATED {
    active,
    inactive
}

Transmitted-Carrier-Power-Value ::= INTEGER(0..100)
-- according to mapping in [23] and [24]
```

```
Transmitted-Carrier-Power-Value-IncrDecrThres ::= INTEGER(0..100)
-- according to mapping in [23] and [24]

Transport-Block-Size-Index ::= INTEGER(1..maxNrOfHS-DSCHTBSs)

TUTRANGANSS ::= SEQUENCE {
    mS              INTEGER(0..16383),
    lS              INTEGER(0..4294967295)
}

TUTRANGANSSAccuracyClass ::= ENUMERATED {
    ganssAccuracy-class-A,
    ganssAccuracy-class-B,
    ganssAccuracy-class-C,
    ...
}

TUTRANGANSSMeasurementThresholdInformation ::= SEQUENCE {
    tUTRANGANSSChangeLimit              INTEGER(1..256)                                                OPTIONAL,
    predictedTUTRANGANSSDeviationLimit     INTEGER(1..256)                                             OPTIONAL,
    ie-Extensions           ProtocolExtensionContainer { { TUTRANGANSSMeasurementThresholdInformation-ExtIEs } }    OPTIONAL,
    ...
}


TUTRANGANSSMeasurementThresholdInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {

    ...
}

TUTRANGANSSMeasurementValueInformation ::= SEQUENCE {
    tUTRANGANSS                     TUTRANGANSS,
    tUTRANGANSSQuality              INTEGER(0..255)                                              OPTIONAL,
    tUTRANGANSSDriftRate            INTEGER(-50..50),
    tUTRANGANSSDriftRateQuality     INTEGER(0..50)                                               OPTIONAL,
    ie-Extensions                   ProtocolExtensionContainer { { TUTRANGANSSMeasurementValueInformation-ExtIEs } }  OPTIONAL,
    ...
}

TUTRANGANSSMeasurementValueInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {

    ...
}

TUTRANGPS ::= SEQUENCE {
    ms-part    INTEGER (0..16383),
    ls-part    INTEGER (0..4294967295)
}

TUTRANGPSChangeLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip

TUTRANGPSDriftRate ::= INTEGER (-50..50)
```

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```
-- Unit chip/s, Step 1/256 chip/s, Range -50/256..+50/256 chip/s

TUTRANGPSDriftRateQuality ::= INTEGER (0..50)
-- Unit chip/s, Step 1/256 chip/s, Range 0..50/256 chip/s

TUTRANGPSAccuracyClass ::= ENUMERATED {
    accuracy-class-A,
    accuracy-class-B,
    accuracy-class-C,
    ...
}

TUTRANGPSMeasurementThresholdInformation ::= SEQUENCE {
    tUTRANGPSChangeLimit                    TUTRANGPSChangeLimit                    OPTIONAL,
    predictedTUTRANGPSDeviationLimit        PredictedTUTRANGPSDeviationLimit        OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { TUTRANGPSMeasurementThresholdInformation-ExtIEs} }   OPTIONAL,
    ...
}

TUTRANGPSMeasurementThresholdInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {

    ...
}

TUTRANGPSMeasurementValueInformation ::= SEQUENCE {
        tUTRANGPS                   TUTRANGPS,
        tUTRANGPSQuality            TUTRANGPSQuality            OPTIONAL,
        tUTRANGPSDriftRate          TUTRANGPSDriftRate,
        tUTRANGPSDriftRateQuality   TUTRANGPSDriftRateQuality   OPTIONAL,
        iEe-Extensions              ProtocolExtensionContainer { { TUTRANGPSMeasurementValueInformationItem-ExtIEs} }   OPTIONAL,
        ...
}

TUTRANGPSMeasurementValueInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {

    ...
}

TUTRANGPSQuality ::= INTEGER (0..255)
-- Unit chip, Step 1/16 chip, Range 0.. 255/16 chip

TransportBearerID       ::= INTEGER (0..4095)

TransportBearerRequestIndicator      ::= ENUMERATED {
    bearer-requested,
    bearer-not-requested,
    ...
}

TransportBearerNotRequestedIndicator        ::= ENUMERATED {
    transport-bearer-shall-not-be-established,
    transport-bearer-may-not-be-established
}
```

```
TransportBearerNotSetupIndicator        ::= ENUMERATED {
    transport-bearer-not-setup
}

TransportBlockSize              ::= INTEGER (0..5000)
-- Unit is bits

TransportFormatCombination-Beta ::= CHOICE {
    signalledGainFactors    SEQUENCE {
        betaC                   BetaCD,
        betaD                   BetaCD,
        refTFCNumber            RefTFCNumber    OPTIONAL,
        iE-Extensions           ProtocolExtensionContainer { { SignalledGainFactors-ExtIEs} } OPTIONAL,
        ...
    },
    refTFCNumber            RefTFCNumber,
    ...
}

SignalledGainFactors-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TFCS ::= SEQUENCE {
    tFCSvalues          CHOICE {
        no-Split-in-TFCI            TFCS-TFCSList,
        not-Used-split-in-TFCI      NULL,
        -- This choice shall never be made by the SRNC and the DRNC shall consider the procedure as failed if it is received.
        ...
    },
    iE-Extensions       ProtocolExtensionContainer { { TFCS-ExtIEs} }     OPTIONAL,
    ...
}

TFCS-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TFCS-TFCSList ::= SEQUENCE (SIZE (1..maxNrOfTFCs)) OF
    SEQUENCE {
        cTFC                TFCS-CTFC,
        tFC-Beta            TransportFormatCombination-Beta     OPTIONAL,
        -- The IE shall be present if the TFCS concerns a UL DPCH [FDD – or PRACH channel in FDD]
        iE-Extensions       ProtocolExtensionContainer { { TFCS-TFCSList-ExtIEs} }     OPTIONAL,
    ...
}

TFCS-TFCSList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TFCS-CTFC ::= CHOICE {
    ctfc2bit                            INTEGER (0..3),
    ctfc4bit                            INTEGER (0..15),
```

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```
    ctfc6bit                            INTEGER (0..63),
    ctfc8bit                            INTEGER (0..255),
    ctfc12bit                           INTEGER (0..4095),
    ctfc16bit                           INTEGER (0..65535),
    ctfcmaxbit                          INTEGER (0..maxCTFC)
}

TransportFormatSet ::= SEQUENCE {
    dynamicParts            TransportFormatSet-DynamicPartList,
    semi-staticPart         TransportFormatSet-Semi-staticPart,
    iE-Extensions           ProtocolExtensionContainer { {TransportFormatSet-ExtIEs} } OPTIONAL,
    ...
}

TransportFormatSet-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransportFormatSet-DynamicPartList ::= SEQUENCE (SIZE (1..maxNrOfTFs)) OF
    SEQUENCE {
        nrOfTransportBlocks     NrOfTransportBlocks,
        transportBlockSize      TransportBlockSize      OPTIONAL
        -- This IE shall be present if nrOfTransportBlocks is greater than 0 --,
        mode                TransportFormatSet-ModeDP,
        iE-Extensions           ProtocolExtensionContainer { {TransportFormatSet-DynamicPartList-ExtIEs} } OPTIONAL,
        ...
    }

TransportFormatSet-DynamicPartList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransportFormatSet-ModeDP ::= CHOICE {
    tdd             TDD-TransportFormatSet-ModeDP,
    notApplicable       NULL,
    ...
}

TDD-TransportFormatSet-ModeDP ::= SEQUENCE {
    transmissionTimeIntervalInformation     TransmissionTimeIntervalInformation     OPTIONAL,
    -- This IE shall be present if the "Transmission Time Interval" of the "Semi-static Transport Format Information" is "dynamic". Otherwise it is
absent.
    iE-Extensions                           ProtocolExtensionContainer { {TDD-TransportFormatSet-ModeDP-ExtIEs} } OPTIONAL,
    ...
    }

TDD-TransportFormatSet-ModeDP-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransmissionTimeIntervalInformation ::= SEQUENCE (SIZE (1..maxTTI-Count)) OF
    SEQUENCE {
        transmissionTimeInterval    TransmissionTimeIntervalDynamic,
        iE-Extensions           ProtocolExtensionContainer { {TransmissionTimeIntervalInformation-ExtIEs} } OPTIONAL,
```

```
        ...
    }

TransmissionTimeIntervalInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Transmitted-Code-Power-Value ::= INTEGER (0..127)
-- According to mapping in [11]/[14]

Transmitted-Code-Power-Value-IncrDecrThres ::= INTEGER (0..112,...)

TransportFormatManagement ::= ENUMERATED {
    cell-based,
    ue-based,
    ...
}

TransportFormatSet-Semi-staticPart ::= SEQUENCE {
    transmissionTime        TransmissionTimeIntervalSemiStatic,
    channelCoding           ChannelCodingType,
    codingRate          CodingRate              OPTIONAL
    -- This IE shall be present if channelCoding is 'convolutional' or 'turbo' --,
    rateMatcingAttribute        RateMatchingAttribute,
    cRC-Size            CRC-Size,
    mode                TransportFormatSet-ModeSSP,
    iE-Extensions           ProtocolExtensionContainer { {TransportFormatSet-Semi-staticPart-ExtIEs} } OPTIONAL,
    ...
}

TransportFormatSet-Semi-staticPart-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransportFormatSet-ModeSSP ::= CHOICE {
    tdd             SecondInterleavingMode,
    notApplicable       NULL,
    ...
}

TransportLayerAddress               ::= BIT STRING (SIZE(1..160, ...))

TrCH-SrcStatisticsDescr     ::= ENUMERATED {
    speech,
    rRC,
    unknown,
    ...
}

TSN-Length ::= ENUMERATED {
    tsn-6bits,
    tsn-9bits
}
```

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```
TSTD-Indicator ::= ENUMERATED {
    active,
    inactive
}

TSTD-Support-Indicator ::= ENUMERATED {
    tSTD-supported,
    tSTD-not-supported
}

TxDiversityIndicator    ::= ENUMERATED {
    true,
    false
}

TypeOfError ::= ENUMERATED {
    not-understood,
    missing,
    ...
}

-- U

UARFCN                  ::= INTEGER (0..16383,...)
-- Corresponds to: 0.0Hz..3276.6Mhz. See [7], [43]

UDRE ::= ENUMERATED {
    lessThan1,
    between1-and-4,
    between4-and-8,
    over8,
    ...
}

UE-Capabilities-Info ::= SEQUENCE {
    hSDSCH-Physical-Layer-Category      INTEGER (1..64,...),
    iE-Extensions                       ProtocolExtensionContainer { { UE-Capabilities-Info-ExtIEs } }      OPTIONAL,
    ...
}

UE-Capabilities-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-LCRTDD-uplink-Physical-Channel-Capability       CRITICALITY ignore      EXTENSION LCRTDD-Uplink-Physical-Channel-Capability
    PRESENCE optional}|
    {ID id-number-Of-Supported-Carriers                    CRITICALITY reject      EXTENSION Number-Of-Supported-Carriers
    PRESENCE optional}|
    {ID id-MultiCarrier-HSDSCH-Physical-Layer-Category     CRITICALITY ignore      EXTENSION LCRTDD-HSDSCH-Physical-Layer-Category       PRESENCE
optional},
    ...
}

LCRTDD-HSDSCH-Physical-Layer-Category ::= INTEGER (1..64,...)

UE-DPCCH-burst1 ::= ENUMERATED {v1, v2, v5}
    -- Unit subframe
```

```
UE-DPCCH-burst2 ::= ENUMERATED {v1, v2, v5}
    -- Unit subframe

UE-DRX-Cycle ::= ENUMERATED {v4, v5, v8, v10, v16, v20}
    -- Unit subframe

UE-DRX-Grant-Monitoring ::= BOOLEAN
    -- true: applied, false: not applied

UE-DTX-Cycle1-2ms ::= ENUMERATED {v1, v4, v5, v8, v10, v16, v20}
    -- Unit subframe

UE-DTX-Cycle1-10ms ::= ENUMERATED {v1, v5, v10, v20}
    -- Unit subframe

UE-DTX-Cycle2-2ms ::= ENUMERATED {v4, v5, v8, v10, v16, v20, v32, v40, v64, v80, v128, v160}
    -- Unit subframe

UE-DTX-Cycle2-10ms ::= ENUMERATED {v5, v10, v20, v40, v80, v160}
    -- Unit subframe

UE-DTX-DRX-Offset ::= INTEGER (0..159)
    -- Unit subframe

UE-DTX-Long-Preamble ::= ENUMERATED {v2, v4, v15}
    -- Units of slots




UEIdentity                  ::= CHOICE {
    imsi        IMSI,
    imei        IMEI,
    imeisv      IMEISV,
    ...
}

UEMeasurementHysteresisTime ::= INTEGER (0..15)
    -- Unit dB
    -- Range 0..7.5 dB
    -- Step 0.5 dB

UEMeasurementParameterModAllow ::= ENUMERATED {
    parameterModificationAllowed,
    ...
}

UEMeasurementReportCharacteristics ::= CHOICE {
    periodic            UEMeasurementReportCharacteristicsPeriodic,
    event1h             UEMeasurementReportCharacteristicsEvent1h,
    event1i             UEMeasurementReportCharacteristicsEvent1i,
    event6a             UEMeasurementReportCharacteristicsEvent6a,
    event6b             UEMeasurementReportCharacteristicsEvent6b,
    event6c             UEMeasurementReportCharacteristicsEvent6c,
```

```
    event6d                   UEMeasurementReportCharacteristicsEvent6d,
    ...,
    extension-ReportCharacteristics    UEMeasurementReportCharacteristics-Extension
}

UEMeasurementReportCharacteristicsEvent1h ::= SEQUENCE {
    uEMeasurementTreshold      UEMeasurementThreshold,
    uEMeasurementTimeToTrigger UEMeasurementTimeToTrigger,
    uEMeasurementHysteresisTime UEMeasurementHysteresisTime,
    iE-Extensions              ProtocolExtensionContainer { { UEMeasurementReportCharacteristicsEvent1h-ExtIEs} } OPTIONAL,
    ...
}

UEMeasurementReportCharacteristicsEvent1h-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementReportCharacteristicsEvent1i ::= SEQUENCE {
    uEMeasurementTreshold      UEMeasurementThreshold,
    uEMeasurementTimeToTrigger UEMeasurementTimeToTrigger,
    uEMeasurementHysteresisTime UEMeasurementHysteresisTime,
    iE-Extensions              ProtocolExtensionContainer { { UEMeasurementReportCharacteristicsEvent1i-ExtIEs} } OPTIONAL,
    ...
}

UEMeasurementReportCharacteristicsEvent1i-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementReportCharacteristicsEvent6a ::= SEQUENCE {
    uEMeasurementTreshold      UEMeasurementThreshold,
    uEMeasurementTimeToTrigger UEMeasurementTimeToTrigger,
    iE-Extensions              ProtocolExtensionContainer { { UEMeasurementReportCharacteristicsEvent6a-ExtIEs} } OPTIONAL,
    ...
}

UEMeasurementReportCharacteristicsEvent6a-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementReportCharacteristicsEvent6b ::= SEQUENCE {
    uEMeasurementTreshold      UEMeasurementThreshold,
    uEMeasurementTimeToTrigger UEMeasurementTimeToTrigger,
    iE-Extensions              ProtocolExtensionContainer { { UEMeasurementReportCharacteristicsEvent6b-ExtIEs} } OPTIONAL,
    ...
}

UEMeasurementReportCharacteristicsEvent6b-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementReportCharacteristicsEvent6c ::= SEQUENCE {
    uEMeasurementTimeToTrigger UEMeasurementTimeToTrigger,
    iE-Extensions              ProtocolExtensionContainer { { UEMeasurementReportCharacteristicsEvent6c-ExtIEs} } OPTIONAL,
```

```
     ...
}

UEMeasurementReportCharacteristicsEvent6c-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ...
}

UEMeasurementReportCharacteristicsEvent6d ::= SEQUENCE {
    uEMeasurementTimeToTrigger  UEMeasurementTimeToTrigger,
    iE-Extensions               ProtocolExtensionContainer { { UEMeasurementReportCharacteristicsEvent6d-ExtIEs} } OPTIONAL,
    ...
}

UEMeasurementReportCharacteristicsEvent6d-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ...
}

UEMeasurementReportCharacteristicsPeriodic ::= SEQUENCE {
    amountofReporting       UEMeasurementReportCharacteristicsPeriodicAmountofReporting,
    reportingInterval       UEMeasurementReportCharacteristicsPeriodicReportingInterval,
    iE-Extensions           ProtocolExtensionContainer { {UEMeasurementReportCharacteristicsPeriodic-ExtIEs} } OPTIONAL,
    ...
}

UEMeasurementReportCharacteristicsPeriodicAmountofReporting::= ENUMERATED {
    r1,
    r2,
    r4,
    r8,
    r16,
    r32,
    r64,
    rInfinity
}

UEMeasurementReportCharacteristicsPeriodicReportingInterval::= ENUMERATED {
    r250,
    r500,
    r1000,
    r2000,
    r3000,
    r4000,
    r6000,
    r8000,
    r12000,
    r16000,
    r20000,
    r24000,
    r28000,
    r32000,
    r64000
}

UEMeasurementReportCharacteristicsPeriodic-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

UEMeasurementReportCharacteristics-Extension    ::= ProtocolIE-Single-Container {{ UEMeasurementReportCharacteristics-ExtensionIE }}

UEMeasurementReportCharacteristics-ExtensionIE RNSAP-PROTOCOL-IES ::= {
    ...
}

UEMeasurementThreshold          ::= CHOICE {
    timeslotISCP                 UEMeasurementThresholdDLTimeslotISCP,
    uETransmitPower              UEMeasurementThresholdUETransmitPower,
    ...,
    extension-UEMeasurementThreshold    UEMeasurementThreshold-Extension
}

UEMeasurementThresholdDLTimeslotISCP ::=    INTEGER(-115..-25)

UEMeasurementThresholdUETransmitPower ::=   INTEGER(-50..33)

UEMeasurementThreshold-Extension    ::= ProtocolIE-Single-Container {{ UEMeasurementThreshold-ExtensionIE }}

UEMeasurementThreshold-ExtensionIE RNSAP-PROTOCOL-IES ::= {
    ...
}

UEMeasurementTimeslotInfoHCR::= SEQUENCE (SIZE (1..maxNrOfTS)) OF UEMeasurementTimeslotInfoHCR-IEs

UEMeasurementTimeslotInfoHCR-IEs ::= SEQUENCE {
    timeSlot                     TimeSlot,
    burstType                    UEMeasurementTimeslotInfoHCRBurstType,
    iE-Extensions                ProtocolExtensionContainer { { UEMeasurementTimeslotInfoHCR-IEs-ExtIEs} }   OPTIONAL,
    ...
}

UEMeasurementTimeslotInfoHCRBurstType ::= ENUMERATED {
    type1,
    type2,
    type3,
    ...
}

UEMeasurementTimeslotInfoHCR-IEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementTimeslotInfoLCR::= SEQUENCE (SIZE (1..maxNrOfTsLCR)) OF UEMeasurementTimeslotInfoLCR-IEs

UEMeasurementTimeslotInfoLCR-IEs ::= SEQUENCE {
    timeSlot                     TimeSlotLCR,
    iE-Extensions                ProtocolExtensionContainer { { UEMeasurementTimeslotInfoLCR-IEs-ExtIEs} }   OPTIONAL,
    ...

}
```

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```
UEMeasurementTimeslotInfoLCR-IEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementTimeslotInfo768::= SEQUENCE (SIZE (1..maxNrOfTS)) OF UEMeasurementTimeslotInfo768-IEs

UEMeasurementTimeslotInfo768-IEs ::= SEQUENCE {
    timeSlot                        TimeSlot,
    burstType                       UEMeasurementTimeslotInfo768BurstType,
    iE-Extensions                   ProtocolExtensionContainer { { UEMeasurementTimeslotInfo768-IEs-ExtIEs} }   OPTIONAL,
    ...
}

UEMeasurementTimeslotInfo768BurstType ::= ENUMERATED {
    type1,
    type2,
    type3,
    ...
}

UEMeasurementTimeslotInfo768-IEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementTimeToTrigger ::= ENUMERATED {
    r0,
    r10,
    r20,
    r40,
    r60,
    r80,
    r100,
    r120,
    r160,
    r200,
    r240,
    r320,
    r640,
    r1280,
    r2560,
    r5000
}

UEMeasurementType ::= ENUMERATED {
    primary-CCPCH-RSCP,
    dL-Timeslot-ISCP,
    uE-Transmitted-power,
    ...
}

UEMeasurementValue ::= CHOICE {
    uE-Transmitted-Power        UE-MeasurementValue-UE-Transmitted-Power,
    primary-CCPCH-RSCP          UE-MeasurementValue-Primary-CCPCH-RSCP,
```

```
    dL-Timeslot-ISCP              UE-MeasurementValue-DL-Timeslot-ISCP,
    ...,
    extension-UEMeasurementValue       UEMeasurementValue-Extension
}

UE-MeasurementValue-UE-Transmitted-Power ::= SEQUENCE {
    uEMeasurementTransmittedPowerListHCR        UEMeasurementValueTransmittedPowerListHCR   OPTIONAL,
-- Mandatory for 3.84Mcps TDD, Not applicable for 1.28Mcps TDD or 7.68Mcps TDD
    uEMeasurementTransmittedPowerListLCR        UEMeasurementValueTransmittedPowerListLCR   OPTIONAL,
-- Mandatory for 1.28Mcps TDD, Not applicable for 3.84Mcps TDD or 7.68Mcps TDD
    iE-Extensions                              ProtocolExtensionContainer { { UE-MeasurementValue-UE-Transmitted-Power-ExtIEs} }   OPTIONAL,
    ...
}

UE-MeasurementValue-UE-Transmitted-Power-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UEMeasurementValueTransmittedPowerList768        CRITICALITY ignore  EXTENSION UEMeasurementValueTransmittedPowerList768
    PRESENCE optional },
    ...
}

UEMeasurementValueTransmittedPowerListHCR   ::= SEQUENCE (SIZE (1..maxNrOfTS)) OF UEMeasurementValueTransmittedPowerListHCR-IEs

UEMeasurementValueTransmittedPowerListHCR-IEs ::= SEQUENCE {
    timeSlot                      TimeSlot,
    uETransmitPower               INTEGER(0..104),
    -- mapping according to [24],values 0..20 not used
    iE-Extensions                              ProtocolExtensionContainer { { UEMeasurementValueTransmittedPowerListHCR-IEs-ExtIEs} }
    OPTIONAL,
    ...

}

UEMeasurementValueTransmittedPowerListHCR-IEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
UEMeasurementValueTransmittedPowerListLCR   ::= SEQUENCE (SIZE (1..maxNrOfTsLCR)) OF UEMeasurementValueTransmittedPowerListLCR-IEs

UEMeasurementValueTransmittedPowerListLCR-IEs ::= SEQUENCE {
    timeSlotLCR                   TimeSlotLCR,
    uETransmitPower               INTEGER(0..104),
    -- mapping according to [24],values 0..20 not used
    iE-Extensions                              ProtocolExtensionContainer { { UEMeasurementValueTransmittedPowerListLCR-IEs-ExtIEs} }
    OPTIONAL,
    ...

}
UEMeasurementValueTransmittedPowerListLCR-IEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementValueTransmittedPowerList768   ::= SEQUENCE (SIZE (1..maxNrOfTS)) OF UEMeasurementValueTransmittedPowerList768-IEs

UEMeasurementValueTransmittedPowerList768-IEs ::= SEQUENCE {
    timeSlot                      TimeSlot,
```

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```
    uETransmitPower                         INTEGER(0..104),
    -- mapping according to [24],values 0..20 not used
    iE-Extensions                           ProtocolExtensionContainer { { UEMeasurementValueTransmittedPowerList768-IEs-ExtIEs} }
    OPTIONAL,
    ...

}

UEMeasurementValueTransmittedPowerList768-IEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UE-MeasurementValue-Primary-CCPCH-RSCP::= SEQUENCE {
    primaryCCPCH-RSCP                       PrimaryCCPCH-RSCP           OPTIONAL,
    primaryCCPCH-RSCP-Delta                 PrimaryCCPCH-RSCP-Delta     OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { UE-MeasurementValue-Primary-CCPCH-RSCP-ExtIEs} }     OPTIONAL,
    ...
}

UE-MeasurementValue-Primary-CCPCH-RSCP-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UE-MeasurementValue-DL-Timeslot-ISCP ::= SEQUENCE {
    uEMeasurementTimeslotISCPListHCR        UEMeasurementValueTimeslotISCPListHCR   OPTIONAL,
-- Mandatory for 3.84Mcps TDD, Not applicable for 1.28Mcps TDD or 7.68Mcps TDD
    uEMeasurementTimeslotISCPListLCR        UEMeasurementValueTimeslotISCPListLCR   OPTIONAL,
-- Mandatory for 1.28Mcps TDD, Not applicable for 3.84Mcps TDD or 7.68Mcps TDD
    iE-Extensions                           ProtocolExtensionContainer { { UE-MeasurementValue-DL-Timeslot-ISCP-ExtIEs} }     OPTIONAL,
    ...
}

UE-MeasurementValue-DL-Timeslot-ISCP-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UEMeasurementValueTimeslotISCPList768        CRITICALITY ignore  EXTENSION UEMeasurementValueTimeslotISCPList768        PRESENCE
optional },
    ...
}

UEMeasurementValueTimeslotISCPListHCR   ::= SEQUENCE (SIZE (1..maxNrOfTS)) OF UEMeasurementValueTimeslotISCPListHCR-IEs

UEMeasurementValueTimeslotISCPListHCR-IEs ::= SEQUENCE {
    timeSlot                    TimeSlot,
    dL-TimeslotISCP             DL-TimeslotISCP,
    iE-Extensions              ProtocolExtensionContainer { { UEMeasurementValueTimeslotISCPListHCR-IEs-ExtIEs} }   OPTIONAL,
    ...

}
UEMeasurementValueTimeslotISCPListHCR-IEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
UEMeasurementValueTimeslotISCPListLCR   ::= SEQUENCE (SIZE (1..maxNrOfTsLCR)) OF UEMeasurementValueTimeslotISCPListLCR-IEs

UEMeasurementValueTimeslotISCPListLCR-IEs ::= SEQUENCE {
    timeSlotLCR                 TimeSlotLCR,
```

```
    dL-TimeslotISCP                  DL-TimeslotISCP,
    iE-Extensions                    ProtocolExtensionContainer { { UEMeasurementValueTimeslotISCPListLCR-IEs-ExtIEs} }   OPTIONAL,
    ...

}
UEMeasurementValueTimeslotISCPListLCR-IEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementValueTimeslotISCPList768   ::= SEQUENCE (SIZE (1..maxNrOfTS)) OF UEMeasurementValueTimeslotISCPList768-IEs

UEMeasurementValueTimeslotISCPList768-IEs ::= SEQUENCE {
    timeSlot                    TimeSlot,
    dL-TimeslotISCP             DL-TimeslotISCP,
    iE-Extensions               ProtocolExtensionContainer { { UEMeasurementValueTimeslotISCPList768-IEs-ExtIEs} }   OPTIONAL,
    ...

}
UEMeasurementValueTimeslotISCPList768-IEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementValue-Extension     ::= ProtocolIE-Single-Container {{ UEMeasurementValue-ExtensionIE }}

UEMeasurementValue-ExtensionIE RNSAP-PROTOCOL-IES ::= {
    ...
}

UEMeasurementValueInformation ::= CHOICE {
    measurementAvailable         UEMeasurementValueInformationAvailable,
    measurementnotAvailable      UEMeasurementValueInformationnotAvailable
}

UEMeasurementValueInformationAvailable::= SEQUENCE {
    uEmeasurementValue          UEMeasurementValue,
    ie-Extensions               ProtocolExtensionContainer { { UEMeasurementValueInformationAvailableItem-ExtIEs} }   OPTIONAL,
    ...
}

UEMeasurementValueInformationAvailableItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementValueInformationnotAvailable ::= NULL

UE-State ::= CHOICE {
    cell-fach-pch                                       Cell-Fach-Pch-State,
    ura-pch                                             Ura-Pch-State,
    ...
}


Cell-Fach-Pch-State ::= SEQUENCE {
```

```
    d-RNTI                         D-RNTI,
    iE-Extensions                  ProtocolExtensionContainer { { Cell-Fach-Pch-State-ExtIEs} }   OPTIONAL,
    ...
}

Cell-Fach-Pch-State-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Ura-Pch-State ::= SEQUENCE {
    srnc-id                        RNC-ID,
    ura-id                         URA-ID,
    iE-Extensions                  ProtocolExtensionContainer { { Ura-Pch-State-ExtIEs} }     OPTIONAL,
    ...
}

Ura-Pch-State-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-SRNC-ID                  CRITICALITY reject  EXTENSION Extended-RNC-ID          PRESENCE optional },
    ...
}

UL-Delta-T2TP ::= INTEGER (0..6,...)

UL-DL-mode ::= ENUMERATED {
    ul-only,
    dl-only,
    both-ul-and-dl
}

UL-DPDCHIndicatorEDCH ::= ENUMERATED {
    uL-DPDCH-present,
    uL-DPDCH-not-present}

UL-Timeslot-Information::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF UL-Timeslot-InformationItem

UL-Timeslot-InformationItem ::= SEQUENCE {
    timeSlot                  TimeSlot,
    midambleShiftAndBurstType  MidambleShiftAndBurstType,
    tFCI-Presence             TFCI-Presence,
    uL-Code-Information        TDD-UL-Code-Information,
    iE-Extensions             ProtocolExtensionContainer { {UL-Timeslot-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

UL-Timeslot-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-TimeslotLCR-Information ::= SEQUENCE (SIZE (1..maxNrOfULTsLCR)) OF UL-TimeslotLCR-InformationItem

UL-TimeslotLCR-InformationItem ::= SEQUENCE {
    timeSlotLCR                        TimeSlotLCR,
    midambleShiftLCR                   MidambleShiftLCR,
    tFCI-Presence                      TFCI-Presence,
```

```
        uL-Code-LCR-InformationList          TDD-UL-Code-LCR-Information,
        iE-Extensions                        ProtocolExtensionContainer { { UL-TimeslotLCR-InformationItem-ExtIEs} }    OPTIONAL,
        ...
}

UL-TimeslotLCR-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
        { ID id-PLCCH-Information-UL-TimeslotLCR-Info   CRITICALITY ignore     EXTENSION  PLCCHinformation    PRESENCE optional },
        ...
}
PLCCHinformation ::= SEQUENCE {
        tDD-ChannelisationCode               TDD-ChannelisationCode,
        timeSlotLCR                          TimeSlotLCR,
        midambleShiftLCR                     MidambleShiftLCR,
        sequenceNumber                       PLCCHsequenceNumber,
        iE-Extensions                        ProtocolExtensionContainer { { PLCCHinformation-ExtIEs} }               OPTIONAL,
        ...
}

PLCCHinformation-ExtIEs  RNSAP-PROTOCOL-EXTENSION ::= {
        ...
}

UL-Timeslot-Information768::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF UL-Timeslot-InformationItem768

UL-Timeslot-InformationItem768 ::= SEQUENCE {
        timeSlot                        TimeSlot,
        midambleShiftAndBurstType768         MidambleShiftAndBurstType768,
        tFCI-Presence                   TFCI-Presence,
        uL-Code-Information768               TDD-UL-Code-Information768,
        iE-Extensions                   ProtocolExtensionContainer { {UL-Timeslot-InformationItem768-ExtIEs} } OPTIONAL,
        ...
}

UL-Timeslot-InformationItem768-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
        ...
}

UL-TimeSlot-ISCP-Info ::= SEQUENCE (SIZE (1..maxNrOfULTs)) OF UL-TimeSlot-ISCP-InfoItem

UL-TimeSlot-ISCP-InfoItem ::= SEQUENCE {
        timeSlot                   TimeSlot,
        uL-TimeslotISCP            UL-TimeslotISCP,
        iE-Extensions             ProtocolExtensionContainer { { UL-TimeSlot-ISCP-InfoItem-ExtIEs} } OPTIONAL,
        ...
}

UL-TimeSlot-ISCP-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
        ...
}

UL-TimeSlot-ISCP-LCR-Info ::= SEQUENCE (SIZE (1..maxNrOfULTsLCR)) OF    UL-TimeSlot-ISCP-LCR-InfoItem

UL-TimeSlot-ISCP-LCR-InfoItem ::= SEQUENCE {
        timeSlotLCR                     TimeSlotLCR,
```

```
    iSCP                               UL-Timeslot-ISCP-Value,
    iE-Extensions                      ProtocolExtensionContainer { { UL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs} }    OPTIONAL,
    ...
 }

UL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Timeslot-ISCP-Value ::= UL-TimeslotISCP

UL-Timeslot-ISCP-Value-IncrDecrThres ::= INTEGER(0..126)
-- Unit dB. Step 0.5dB
-- e.g. Value 100 means 50dB

UL-TimingAdvanceCtrl-LCR ::= SEQUENCE {
    sync-UL-codes-bitmap                      BIT STRING (SIZE(8)),
    fPACH-info                                FPACH-Information,
    prxUpPCHdes                               INTEGER (-120 .. -58, ...),
    syncUL-procParameter                      SYNC-UL-ProcParameters,
    mMax                                      INTEGER (1..32),
    ...
    }

Uplink-Compressed-Mode-Method   ::= ENUMERATED {
    sFdiv2,
    higher-layer-scheduling,
    ...
}

UL-SIR                ::= INTEGER (-82..173)
-- The UL-SIR gives the UL-SIR in number of 0.1 dB steps.
-- E.g. Value 173 means 17.3 dB
-- Unit dB. Step 0.1 dB.

UC-ID ::= SEQUENCE {
    rNC-ID            RNC-ID,
    c-ID              C-ID,
    iE-Extensions          ProtocolExtensionContainer { {UC-ID-ExtIEs} } OPTIONAL,
    ...
}

UC-ID-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-RNC-ID    CRITICALITY reject     EXTENSION   Extended-RNC-ID PRESENCE optional},
    ...
}

UL-DPCCH-SlotFormat        ::= INTEGER (0..5,...)

UL-FP-Mode ::= ENUMERATED {
    normal,
    silent,
    ...
}
```

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```
    UL-PhysCH-SF-Variation ::= ENUMERATED {
        sf-variation-supported,
        sf-variation-not-supported
    }

    UL-ScramblingCode ::= SEQUENCE {
        ul-ScramblingCodeNumber       UL-ScramblingCodeNumber,
        ul-ScramblingCodeLength       UL-ScramblingCodeLength,
        iE-Extensions                 ProtocolExtensionContainer { {UL-ScramblingCode-ExtIEs} } OPTIONAL
    }

    UL-ScramblingCode-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
        ...
    }

    UL-ScramblingCodeLength ::= ENUMERATED {
        short,
        long
    }

    UL-ScramblingCodeNumber          ::= INTEGER (0..16777215)

    UL-Synchronisation-Parameters-LCR ::= SEQUENCE {
        uL-Synchronisation-StepSize        UL-Synchronisation-StepSize,
        uL-Synchronisation-Frequency         UL-Synchronisation-Frequency,
        iE-Extensions                     ProtocolExtensionContainer { { UL-Synchronisation-Parameters-LCR-ExtIEs } }        OPTIONAL,
        ...
    }

    UL-Synchronisation-Parameters-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
        ...
    }

    UL-Synchronisation-StepSize ::= INTEGER (1..8)

    UL-Synchronisation-Frequency ::= INTEGER (1..8)

    UL-TimeslotISCP          ::= INTEGER (0..127)
    -- According to mapping in [14]

    UPPCHPositionLCR ::= INTEGER (0..127)

    UpPTSInterferenceValue  ::= INTEGER (0..127,...)

    Unidirectional-DCH-Indicator    ::= ENUMERATED {
        downlink-DCH-only,
        uplink-DCH-only
    }

    URA-ID                ::= INTEGER (0..65535)

    URA-Information ::= SEQUENCE {
        uRA-ID                           URA-ID,
```

```
    multipleURAsIndicator               MultipleURAsIndicator,
    rNCsWithCellsInTheAccessedURA-List  RNCsWithCellsInTheAccessedURA-List  OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { {URA-Information-ExtIEs} } OPTIONAL,
    ...
}

URA-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-RNC-ID                    CRITICALITY reject  EXTENSION Extended-RNC-ID          PRESENCE optional },
    ...
}

RNCsWithCellsInTheAccessedURA-List ::= SEQUENCE (SIZE (1..maxRNCinURA-1)) OF RNCsWithCellsInTheAccessedURA-Item

RNCsWithCellsInTheAccessedURA-Item ::= SEQUENCE {
    rNC-ID                      RNC-ID,
    iE-Extensions               ProtocolExtensionContainer { {RNCsWithCellsInTheAccessedURA-Item-ExtIEs} } OPTIONAL,
    ...
}

RNCsWithCellsInTheAccessedURA-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

USCH-ID                 ::= INTEGER (0..255)

USCH-Information ::=  SEQUENCE (SIZE (1..maxNoOfUSCHs)) OF USCH-InformationItem

USCH-InformationItem ::= SEQUENCE {
    uSCH-ID                     USCH-ID,
    ul-CCTrCH-ID                CCTrCH-ID,
    trChSourceStatisticsDescriptor   TrCH-SrcStatisticsDescr,
    transportFormatSet          TransportFormatSet,
    allocationRetentionPriority AllocationRetentionPriority,
    schedulingPriorityIndicator SchedulingPriorityIndicator,
    rb-Info                     RB-Info,
    iE-Extensions               ProtocolExtensionContainer { {USCH-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

USCH-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TrafficClass        CRITICALITY ignore  EXTENSION TrafficClass      PRESENCE mandatory  }|
    { ID id-BindingID                       CRITICALITY ignore     EXTENSION  BindingID  PRESENCE                    optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress           CRITICALITY ignore     EXTENSION  TransportLayerAddress    PRESENCE   optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TnlQos                          CRITICALITY ignore     EXTENSION  TnlQos                   PRESENCE optional },
    ...
}

User-Plane-Congestion-Fields-Inclusion      ::= ENUMERATED { shall-be-included }

-- V
-- W
-- X
```

```
-- Y
-- Z

END
```

9.3.5   Common Definitions

```
-- ****************************************************************
--
-- Common definitions
--
-- ****************************************************************

RNSAP-CommonDataTypes {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-CommonDataTypes (3)  }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- ****************************************************************
--
-- Extension constants
--
-- ****************************************************************

maxPrivateIEs                              INTEGER ::= 65535
maxProtocolExtensions                      INTEGER ::= 65535
maxProtocolIEs                             INTEGER ::= 65535

-- ****************************************************************
--
-- Common Data Types
--
-- ****************************************************************

Criticality     ::= ENUMERATED { reject, ignore, notify }

Presence        ::= ENUMERATED { optional, conditional, mandatory }

PrivateIE-ID    ::= CHOICE {
    local              INTEGER (0.. maxPrivateIEs),
    global             OBJECT IDENTIFIER
}

ProcedureCode       ::= INTEGER (0..255)

ProcedureID ::= SEQUENCE {
    procedureCode           ProcedureCode,
    ddMode             ENUMERATED { tdd, fdd, common, ... }
}
```

ETSI

```
ProtocolIE-ID        ::= INTEGER (0..maxProtocolIEs)

TransactionID        ::= CHOICE {
    shortTransActionId  INTEGER (0..127),
    longTransActionId   INTEGER (0..32767)
}

TriggeringMessage    ::= ENUMERATED { initiating-message, successful-outcome, unsuccessful-outcome, outcome }

END
```

9.3.6   Constant Definitions

```
-- *************************************************************
--
-- Constant definitions
--
-- *************************************************************

RNSAP-Constants {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-Constants (4) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS
    ProcedureCode,
    ProtocolIE-ID
FROM RNSAP-CommonDataTypes;

-- *************************************************************
--
-- Elementary Procedures
--
-- *************************************************************

id-commonTransportChannelResourcesInitialisation            ProcedureCode ::= 0
id-commonTransportChannelResourcesRelease                   ProcedureCode ::= 1
id-compressedModeCommand                                    ProcedureCode ::= 2
id-downlinkPowerControl                                     ProcedureCode ::= 3
id-downlinkPowerTimeslotControl                             ProcedureCode ::= 4
id-downlinkSignallingTransfer                               ProcedureCode ::= 5
id-errorIndication                                          ProcedureCode ::= 6
id-dedicatedMeasurementFailure                              ProcedureCode ::= 7
id-dedicatedMeasurementInitiation                           ProcedureCode ::= 8
id-dedicatedMeasurementReporting                            ProcedureCode ::= 9
id-dedicatedMeasurementTermination                          ProcedureCode ::= 10
id-paging                                                   ProcedureCode ::= 11
id-physicalChannelReconfiguration                           ProcedureCode ::= 12
id-privateMessage                                           ProcedureCode ::= 13
id-radioLinkAddition                                        ProcedureCode ::= 14
```

```
id-radioLinkCongestion                                      ProcedureCode ::= 34
id-radioLinkDeletion                                        ProcedureCode ::= 15
id-radioLinkFailure                                         ProcedureCode ::= 16
id-radioLinkPreemption                                      ProcedureCode ::= 17
id-radioLinkRestoration                                     ProcedureCode ::= 18
id-radioLinkSetup                                           ProcedureCode ::= 19
id-relocationCommit                                         ProcedureCode ::= 20
id-synchronisedRadioLinkReconfigurationCancellation         ProcedureCode ::= 21
id-synchronisedRadioLinkReconfigurationCommit               ProcedureCode ::= 22
id-synchronisedRadioLinkReconfigurationPreparation          ProcedureCode ::= 23
id-unSynchronisedRadioLinkReconfiguration                   ProcedureCode ::= 24
id-uplinkSignallingTransfer                                 ProcedureCode ::= 25
id-commonMeasurementFailure                                 ProcedureCode ::= 26
id-commonMeasurementInitiation                              ProcedureCode ::= 27
id-commonMeasurementReporting                               ProcedureCode ::= 28
id-commonMeasurementTermination                             ProcedureCode ::= 29
id-informationExchangeFailure                               ProcedureCode ::= 30
id-informationExchangeInitiation                            ProcedureCode ::= 31
id-informationReporting                                     ProcedureCode ::= 32
id-informationExchangeTermination                           ProcedureCode ::= 33
id-reset                                                    ProcedureCode ::= 35
id-radioLinkActivation                                      ProcedureCode ::= 36
id-gERANuplinkSignallingTransfer                            ProcedureCode ::= 37
id-radioLinkParameterUpdate                                 ProcedureCode ::= 38
id-uEMeasurementFailure                                     ProcedureCode ::= 39
id-uEMeasurementInitiation                                  ProcedureCode ::= 40
id-uEMeasurementReporting                                   ProcedureCode ::= 41
id-uEMeasurementTermination                                 ProcedureCode ::= 42
id-iurDeactivateTrace                                       ProcedureCode ::= 43
id-iurInvokeTrace                                           ProcedureCode ::= 44
id-mBMSAttach                                               ProcedureCode ::= 45
id-mBMSDetach                                               ProcedureCode ::= 46
id-directInformationTransfer                                ProcedureCode ::= 48


-- ************************************************************
--
-- Lists
--
-- ************************************************************


maxCellSIB11OrSIB12                     INTEGER ::= 32
maxCellsMeas                            INTEGER ::= 8
maxRateMatching                         INTEGER ::= 256
maxNoOfDSCHs                            INTEGER ::= 10
maxNoOfDSCHsLCR                         INTEGER ::= 10
maxNoOfRB                               INTEGER ::= 32
maxNoOfUSCHs                            INTEGER ::= 10
maxNoOfUSCHsLCR                         INTEGER ::= 10
maxNrOfTFCs                             INTEGER ::= 1024
maxNrOfTFs                              INTEGER ::= 32
maxNrOfCCTrCHs                          INTEGER ::= 16
maxNrOfCCTrCHsLCR                       INTEGER ::= 16
maxNrOfDCHs                             INTEGER ::= 128
maxNrOfDL-Codes                         INTEGER ::= 8
```

```
maxNrOfDPCHs                            INTEGER ::= 240
maxNrOfDPCHsPerRL-1                     INTEGER ::= 239 -- maxNrofCCTrCH*maxNrOfULTs-1
maxNrOfDPCHsLCR                         INTEGER ::= 240
maxNrOfDPCHsLCRPerRL-1                  INTEGER ::= 95  -- maxNrofCCTrCH*maxNrOfULTsLCR-1
maxNrOfDPCHs768                         INTEGER ::= 480
maxNrOfDPCHs768PerRL-1                  INTEGER ::= 479
maxNrOfErrors                          INTEGER ::= 256
maxNrOfMACcshSDU-Length                INTEGER ::= 16
maxNrOfMBMSServices                    INTEGER ::= 128
maxNrOfActiveMBMSServices              INTEGER ::= 256
maxNrOfPoints                          INTEGER ::= 15
maxNrOfRLs                             INTEGER ::= 16
maxNrOfRLSets                          INTEGER ::= maxNrOfRLs
maxNrOfRLSets-1                        INTEGER ::= 15  -- maxNrOfRLSets - 1
maxNrOfRLs-1                           INTEGER ::= 15  -- maxNrOfRLs - 1
maxNrOfRLs-2                           INTEGER ::= 14  -- maxNrOfRLs - 2
maxNrOfUEs                             INTEGER ::= 4096
maxNrOfULTs                            INTEGER ::= 15
maxNrOfULTsLCR                         INTEGER ::= 6
maxNrOfDLTs                            INTEGER ::= 15
maxNrOfDLTsLCR                         INTEGER ::= 6
maxRNCinURA-1                          INTEGER ::= 15
maxTTI-Count                          INTEGER ::= 4
maxCTFC                               INTEGER ::= 16777215
maxNrOfNeighbouringRNCs                INTEGER ::= 10
maxNrOfFDDNeighboursPerRNC             INTEGER ::= 256
maxNrOfGSMNeighboursPerRNC             INTEGER ::= 256
maxNrOfTDDNeighboursPerRNC             INTEGER ::= 256
maxNrOfFACHs                          INTEGER ::= 8
maxNrOfLCRTDDNeighboursPerRNC          INTEGER ::= 256
maxIBSEG                              INTEGER ::= 16
maxNrOfSCCPCHs                        INTEGER ::= 8
maxNrOfSCCPCHs768                     INTEGER ::= 16
maxTGPS                               INTEGER ::= 6
maxNrOfTS                             INTEGER ::= 15
maxNrOfLevels                         INTEGER ::= 256
maxNrOfTsLCR                          INTEGER ::= 6
maxNoSat                              INTEGER ::= 16
maxNoGPSTypes                         INTEGER ::= 8
maxNrOfMeasNCell                      INTEGER ::= 96
maxNrOfMeasNCell-1                     INTEGER ::= 95  -- maxNrOfMeasNCell - 1
maxResetContext                       INTEGER ::= 250
maxResetContextGroup                  INTEGER ::= 32
maxNrOfHARQProc                       INTEGER ::= 8
maxNrOfHSSCCHCodes                    INTEGER ::= 4
maxNrOfHSSICHs                        INTEGER ::= 4
maxNrOfHSSICHs-1                      INTEGER ::= 3
maxNrOfMACdFlows                      INTEGER ::= 8
maxNrOfMACdFlows-1                     INTEGER ::= 7  -- maxNrOfMACdFlows - 1
maxNrOfMACdPDUSize                    INTEGER ::= 32
maxNrOfPDUIndexes                     INTEGER ::= 8
maxNrOfPDUIndexes-1                    INTEGER ::= 7   -- maxNrOfPDUIndexes - 1
maxNrOfPrioQueues                     INTEGER ::= 8
maxNrOfPrioQueues-1                    INTEGER ::= 7   -- maxNrOfPrioQueues - 1
```

```
maxNrOfSNAs                            INTEGER ::= 65536
maxNrOfSatAlmanac-maxNoSat             INTEGER ::= 16
maxNrOfGERANSI                         INTEGER ::= 8
maxNrOfInterfaces                      INTEGER ::= 16
maxNrofSigSeqERGHICH-1                 INTEGER ::= 39
maxNrOfCells                           INTEGER ::= 65536
maxNrOfAddFreq                         INTEGER ::= 8
maxNrOfCellsPerFreq                    INTEGER ::= 65536
maxNrOfEDCHMACdFlows-1                 INTEGER ::= 7
maxNrOfEDCH-HARQ-PO-QUANTSTEPs         INTEGER ::= 6
maxNrOfEDPCCH-PO-QUANTSTEPs            INTEGER ::= 8
maxNrOfEDCHHARQProcesses2msEDCH        INTEGER ::= 8
maxNrOfBits-MACe-PDU-non-scheduled     INTEGER ::= 19982
maxNrOfRefETFCIs                       INTEGER ::= 8
maxNrOfRefETFCI-PO-QUANTSTEPs          INTEGER ::= 29
maxNrOfEDCHMACdFlows                   INTEGER ::= 8
maxNoOfLogicalChannels                 INTEGER ::= 16 -- only maximum 15 can be used
maxNrOfRefBetas                        INTEGER ::= 8
maxNrOfEAGCHCodes                      INTEGER ::= 4
maxNrOfHS-DSCHTBSs                      INTEGER ::= 90
maxNrOfHS-DSCHTBSs-HS-SCCHless          INTEGER ::= 4
maxHS-PDSCHCodeNrComp-1                INTEGER ::= 15
maxNrOfEHICHCodes                      INTEGER ::= 4
maxGANSSSat                            INTEGER ::= 64
maxNoGANSS                             INTEGER ::= 8
maxSgnType                             INTEGER ::= 8
maxNrOfBroadcastPLMNs                  INTEGER ::= 5
maxHSDPAFrequency                      INTEGER ::= 8
maxHSDPAFrequency-1                    INTEGER ::= 7
maxFrequencyinCell                     INTEGER ::= 12
maxFrequencyinCell-1                   INTEGER ::= 11
maxGANSSSatAlmanac                     INTEGER ::= 36
maxGANSSClockMod                       INTEGER ::= 4
maxNrOfEDCHRLs                         INTEGER ::= 4




-- ****************************************************************
--
-- IEs
--
-- ****************************************************************

id-AllowedQueuingTime                                      ProtocolIE-ID ::= 4
id-Allowed-Rate-Information                                ProtocolIE-ID ::= 42
id-AntennaColocationIndicator                             ProtocolIE-ID ::= 309
id-BindingID                                              ProtocolIE-ID ::= 5
id-C-ID                                                   ProtocolIE-ID ::= 6
id-C-RNTI                                                 ProtocolIE-ID ::= 7
id-Cell-Capacity-Class-Value                             ProtocolIE-ID ::= 303
id-CFN                                                    ProtocolIE-ID ::= 8
id-CN-CS-DomainIdentifier                                ProtocolIE-ID ::= 9
```

```
id-CN-PS-DomainIdentifier                                    ProtocolIE-ID ::= 10
id-Cause                                                     ProtocolIE-ID ::= 11
id-CoverageIndicator                                        ProtocolIE-ID ::= 310
id-CriticalityDiagnostics                                   ProtocolIE-ID ::= 20
id-ContextInfoItem-Reset                                    ProtocolIE-ID ::= 211
id-ContextGroupInfoItem-Reset                               ProtocolIE-ID ::= 515
id-D-RNTI                                                    ProtocolIE-ID ::= 21
id-D-RNTI-ReleaseIndication                                 ProtocolIE-ID ::= 22
id-DCHs-to-Add-FDD                                          ProtocolIE-ID ::= 26
id-DCHs-to-Add-TDD                                          ProtocolIE-ID ::= 27
id-DCH-DeleteList-RL-ReconfPrepFDD                          ProtocolIE-ID ::= 30
id-DCH-DeleteList-RL-ReconfPrepTDD                          ProtocolIE-ID ::= 31
id-DCH-DeleteList-RL-ReconfRqstFDD                          ProtocolIE-ID ::= 32
id-DCH-DeleteList-RL-ReconfRqstTDD                          ProtocolIE-ID ::= 33
id-DCH-FDD-Information                                      ProtocolIE-ID ::= 34
id-DCH-TDD-Information                                      ProtocolIE-ID ::= 35
id-FDD-DCHs-to-Modify                                       ProtocolIE-ID ::= 39
id-TDD-DCHs-to-Modify                                       ProtocolIE-ID ::= 40
id-DCH-InformationResponse                                  ProtocolIE-ID ::= 43
id-DCH-Rate-InformationItem-RL-CongestInd                   ProtocolIE-ID ::= 38
id-DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD            ProtocolIE-ID ::= 44
id-DL-CCTrCH-InformationListIE-RL-ReconfReadyTDD            ProtocolIE-ID ::= 45
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD         ProtocolIE-ID ::= 46
id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD               ProtocolIE-ID ::= 47
id-DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD          ProtocolIE-ID ::= 48
id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD          ProtocolIE-ID ::= 49
id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD             ProtocolIE-ID ::= 50
id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD          ProtocolIE-ID ::= 51
id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD       ProtocolIE-ID ::= 52
id-DL-CCTrCH-InformationList-RL-SetupRqstTDD             ProtocolIE-ID ::= 53
id-FDD-DL-CodeInformation                                   ProtocolIE-ID ::= 54
id-DL-DPCH-Information-RL-ReconfPrepFDD                     ProtocolIE-ID ::= 59
id-DL-DPCH-Information-RL-SetupRqstFDD                      ProtocolIE-ID ::= 60
id-DL-DPCH-Information-RL-ReconfRqstFDD                     ProtocolIE-ID ::= 61
id-DL-DPCH-InformationItem-PhyChReconfRqstTDD             ProtocolIE-ID ::= 62
id-DL-DPCH-InformationItem-RL-AdditionRspTDD             ProtocolIE-ID ::= 63
id-DL-DPCH-InformationItem-RL-SetupRspTDD                ProtocolIE-ID ::= 64
id-DL-DPCH-TimingAdjustment                                ProtocolIE-ID ::= 278
id-DLReferencePower                                         ProtocolIE-ID ::= 67
id-DLReferencePowerList-DL-PC-Rqst                          ProtocolIE-ID ::= 68
id-DL-ReferencePowerInformation-DL-PC-Rqst                  ProtocolIE-ID ::= 69
id-DPC-Mode                                                 ProtocolIE-ID ::= 12
id-DRXCycleLengthCoefficient                               ProtocolIE-ID ::= 70
id-DedicatedMeasurementObjectType-DM-Fail-Ind             ProtocolIE-ID ::= 470
id-DedicatedMeasurementObjectType-DM-Fail                 ProtocolIE-ID ::= 471
id-DedicatedMeasurementObjectType-DM-Rprt                 ProtocolIE-ID ::= 71
id-DedicatedMeasurementObjectType-DM-Rqst                 ProtocolIE-ID ::= 72
id-DedicatedMeasurementObjectType-DM-Rsp                  ProtocolIE-ID ::= 73
id-DedicatedMeasurementType                                ProtocolIE-ID ::= 74
id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD      ProtocolIE-ID ::= 82
id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD      ProtocolIE-ID ::= 83
id-Guaranteed-Rate-Information                             ProtocolIE-ID ::= 41
id-IMSI                                                     ProtocolIE-ID ::= 84
id-HCS-Prio                                                 ProtocolIE-ID ::= 311
```

```
id-L3-Information                                    ProtocolIE-ID ::= 85
id-AdjustmentPeriod                                  ProtocolIE-ID ::= 90
id-MaxAdjustmentStep                                 ProtocolIE-ID ::= 91
id-MeasurementFilterCoefficient                      ProtocolIE-ID ::= 92
id-MessageStructure                                  ProtocolIE-ID ::= 57
id-MeasurementID                                     ProtocolIE-ID ::= 93
id-Neighbouring-GSM-CellInformation                  ProtocolIE-ID ::= 13
id-Neighbouring-UMTS-CellInformationItem             ProtocolIE-ID ::= 95
id-NRT-Load-Information-Value                         ProtocolIE-ID ::= 305
id-NRT-Load-Information-Value-IncrDecrThres           ProtocolIE-ID ::= 306
id-PagingArea-PagingRqst                             ProtocolIE-ID ::= 102
id-FACH-FlowControlInformation                       ProtocolIE-ID ::= 103
id-PartialReportingIndicator                         ProtocolIE-ID ::= 472
id-Permanent-NAS-UE-Identity                         ProtocolIE-ID ::= 17
id-PowerAdjustmentType                               ProtocolIE-ID ::= 107
id-RANAP-RelocationInformation                       ProtocolIE-ID ::= 109
id-RL-Information-PhyChReconfRqstFDD                  ProtocolIE-ID ::= 110
id-RL-Information-PhyChReconfRqstTDD                  ProtocolIE-ID ::= 111
id-RL-Information-RL-AdditionRqstFDD                  ProtocolIE-ID ::= 112
id-RL-Information-RL-AdditionRqstTDD                  ProtocolIE-ID ::= 113
id-RL-Information-RL-DeletionRqst                     ProtocolIE-ID ::= 114
id-RL-Information-RL-FailureInd                       ProtocolIE-ID ::= 115
id-RL-Information-RL-ReconfPrepFDD                    ProtocolIE-ID ::= 116
id-RL-Information-RL-RestoreInd                       ProtocolIE-ID ::= 117
id-RL-Information-RL-SetupRqstFDD                     ProtocolIE-ID ::= 118
id-RL-Information-RL-SetupRqstTDD                     ProtocolIE-ID ::= 119
id-RL-InformationItem-RL-CongestInd                  ProtocolIE-ID ::= 55
id-RL-InformationItem-DM-Rprt                        ProtocolIE-ID ::= 120
id-RL-InformationItem-DM-Rqst                        ProtocolIE-ID ::= 121
id-RL-InformationItem-DM-Rsp                         ProtocolIE-ID ::= 122
id-RL-InformationItem-RL-PreemptRequiredInd          ProtocolIE-ID ::= 2
id-RL-InformationItem-RL-SetupRqstFDD                ProtocolIE-ID ::= 123
id-RL-InformationList-RL-CongestInd                  ProtocolIE-ID ::= 56
id-RL-InformationList-RL-AdditionRqstFDD             ProtocolIE-ID ::= 124
id-RL-InformationList-RL-DeletionRqst                ProtocolIE-ID ::= 125
id-RL-InformationList-RL-PreemptRequiredInd          ProtocolIE-ID ::= 1
id-RL-InformationList-RL-ReconfPrepFDD               ProtocolIE-ID ::= 126
id-RL-InformationResponse-RL-AdditionRspTDD          ProtocolIE-ID ::= 127
id-RL-InformationResponse-RL-ReconfReadyTDD          ProtocolIE-ID ::= 128
id-RL-InformationResponse-RL-SetupRspTDD             ProtocolIE-ID ::= 129
id-RL-InformationResponseItem-RL-AdditionRspFDD      ProtocolIE-ID ::= 130
id-RL-InformationResponseItem-RL-ReconfReadyFDD      ProtocolIE-ID ::= 131
id-RL-InformationResponseItem-RL-ReconfRspFDD        ProtocolIE-ID ::= 132
id-RL-InformationResponseItem-RL-SetupRspFDD         ProtocolIE-ID ::= 133
id-RL-InformationResponseList-RL-AdditionRspFDD      ProtocolIE-ID ::= 134
id-RL-InformationResponseList-RL-ReconfReadyFDD      ProtocolIE-ID ::= 135
id-RL-InformationResponseList-RL-ReconfRspFDD        ProtocolIE-ID ::= 136
id-RL-InformationResponse-RL-ReconfRspTDD            ProtocolIE-ID ::= 28
id-RL-InformationResponseList-RL-SetupRspFDD         ProtocolIE-ID ::= 137
id-RL-ReconfigurationFailure-RL-ReconfFail           ProtocolIE-ID ::= 141
id-RL-Set-InformationItem-DM-Rprt                    ProtocolIE-ID ::= 143
id-RL-Set-InformationItem-DM-Rqst                    ProtocolIE-ID ::= 144
id-RL-Set-InformationItem-DM-Rsp                     ProtocolIE-ID ::= 145
id-RL-Set-Information-RL-FailureInd                  ProtocolIE-ID ::= 146
```

```
id-RL-Set-Information-RL-RestoreInd                              ProtocolIE-ID ::= 147
id-RL-Set-Successful-InformationItem-DM-Fail                    ProtocolIE-ID ::= 473
id-RL-Set-Unsuccessful-InformationItem-DM-Fail                 ProtocolIE-ID ::= 474
id-RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind            ProtocolIE-ID ::= 475
id-RL-Successful-InformationItem-DM-Fail                        ProtocolIE-ID ::= 476
id-RL-Unsuccessful-InformationItem-DM-Fail                     ProtocolIE-ID ::= 477
id-RL-Unsuccessful-InformationItem-DM-Fail-Ind                ProtocolIE-ID ::= 478
id-ReportCharacteristics                                        ProtocolIE-ID ::= 152
id-Reporting-Object-RL-FailureInd                              ProtocolIE-ID ::= 153
id-Reporing-Object-RL-RestoreInd                               ProtocolIE-ID ::= 154
id-RT-Load-Value                                                ProtocolIE-ID ::= 307
id-RT-Load-Value-IncrDecrThres                                 ProtocolIE-ID ::= 308
id-S-RNTI                                                       ProtocolIE-ID ::= 155
id-ResetIndicator                                              ProtocolIE-ID ::= 244
id-RNC-ID                                                       ProtocolIE-ID ::= 245
id-SAI                                                          ProtocolIE-ID ::= 156
id-SRNC-ID                                                      ProtocolIE-ID ::= 157
id-SuccessfulRL-InformationResponse-RL-AdditionFailureFDD     ProtocolIE-ID ::= 159
id-SuccessfulRL-InformationResponse-RL-SetupFailureFDD        ProtocolIE-ID ::= 160
id-TransportBearerID                                           ProtocolIE-ID ::= 163
id-TransportBearerRequestIndicator                            ProtocolIE-ID ::= 164
id-TransportLayerAddress                                       ProtocolIE-ID ::= 165
id-TypeOfError                                                 ProtocolIE-ID ::= 140
id-UC-ID                                                       ProtocolIE-ID ::= 166
id-UL-CCTrCH-AddInformation-RL-ReconfPrepTDD                  ProtocolIE-ID ::= 167
id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD             ProtocolIE-ID ::= 169
id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD                 ProtocolIE-ID ::= 171
id-UL-CCTrCH-InformationList-RL-SetupRqstTDD                 ProtocolIE-ID ::= 172
id-UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD           ProtocolIE-ID ::= 173
id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD            ProtocolIE-ID ::= 174
id-UL-CCTrCH-InformationListIE-RL-ReconfReadyTDD           ProtocolIE-ID ::= 175
id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD              ProtocolIE-ID ::= 176
id-UL-DPCH-Information-RL-ReconfPrepFDD                      ProtocolIE-ID ::= 177
id-UL-DPCH-Information-RL-ReconfRqstFDD                      ProtocolIE-ID ::= 178
id-UL-DPCH-Information-RL-SetupRqstFDD                       ProtocolIE-ID ::= 179
id-UL-DPCH-InformationItem-PhyChReconfRqstTDD               ProtocolIE-ID ::= 180
id-UL-DPCH-InformationItem-RL-AdditionRspTDD               ProtocolIE-ID ::= 181
id-UL-DPCH-InformationItem-RL-SetupRspTDD                  ProtocolIE-ID ::= 182
id-UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD         ProtocolIE-ID ::= 183
id-UL-SIRTarget                                            ProtocolIE-ID ::= 184
id-URA-Information                                         ProtocolIE-ID ::= 185
id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD  ProtocolIE-ID ::= 188
id-UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD     ProtocolIE-ID ::= 189
id-UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD     ProtocolIE-ID ::= 190
id-Active-Pattern-Sequence-Information                     ProtocolIE-ID ::= 193
id-AdjustmentRatio                                        ProtocolIE-ID ::= 194
id-CauseLevel-RL-AdditionFailureFDD                       ProtocolIE-ID ::= 197
id-CauseLevel-RL-AdditionFailureTDD                       ProtocolIE-ID ::= 198
id-CauseLevel-RL-ReconfFailure                            ProtocolIE-ID ::= 199
id-CauseLevel-RL-SetupFailureFDD                          ProtocolIE-ID ::= 200
id-CauseLevel-RL-SetupFailureTDD                          ProtocolIE-ID ::= 201
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD      ProtocolIE-ID ::= 205
id-DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD      ProtocolIE-ID ::= 206
id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD      ProtocolIE-ID ::= 207
```

```
id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD            ProtocolIE-ID ::= 208
id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD            ProtocolIE-ID ::= 209
id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD            ProtocolIE-ID ::= 210
id-DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD             ProtocolIE-ID ::= 212
id-DL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD           ProtocolIE-ID ::= 213
id-DL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD          ProtocolIE-ID ::= 214
id-DSCHs-to-Add-TDD                                          ProtocolIE-ID ::= 215
id-Unused-ProtocolIE-ID-216                                  ProtocolIE-ID ::= 216
id-DSCH-DeleteList-RL-ReconfPrepTDD                          ProtocolIE-ID ::= 217
id-Unused-ProtocolIE-ID-218                                  ProtocolIE-ID ::= 218
id-Unused-ProtocolIE-ID-219                                  ProtocolIE-ID ::= 219
id-DSCH-InformationListIE-RL-AdditionRspTDD                   ProtocolIE-ID ::= 220
id-DSCH-InformationListIEs-RL-SetupRspTDD                    ProtocolIE-ID ::= 221
id-DSCH-TDD-Information                                      ProtocolIE-ID ::= 222
id-Unused-ProtocolIE-ID-223                                  ProtocolIE-ID ::= 223
id-Unused-ProtocolIE-ID-226                                  ProtocolIE-ID ::= 226
id-DSCH-ModifyList-RL-ReconfPrepTDD                          ProtocolIE-ID ::= 227
id-Unused-ProtocolIE-ID-228                                  ProtocolIE-ID ::= 228
id-Unused-ProtocolIE-ID-324                                  ProtocolIE-ID ::= 324
id-Unused-ProtocolIE-ID-229                                  ProtocolIE-ID ::= 229
id-DSCHToBeAddedOrModifiedList-RL-ReconfReadyTDD             ProtocolIE-ID ::= 230
id-Unused-ProtocolIE-ID-29                                   ProtocolIE-ID ::= 29
id-Unused-ProtocolIE-ID-225                                  ProtocolIE-ID ::= 225
id-GA-Cell                                                  ProtocolIE-ID ::= 232
id-GA-CellAdditionalShapes                                  ProtocolIE-ID ::= 3
id-Unused-ProtocolIE-ID-246                                  ProtocolIE-ID ::= 246
id-Transmission-Gap-Pattern-Sequence-Information             ProtocolIE-ID ::= 255
id-UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD              ProtocolIE-ID ::= 256
id-UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD              ProtocolIE-ID ::= 257
id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD          ProtocolIE-ID ::= 258
id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD          ProtocolIE-ID ::= 259
id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD          ProtocolIE-ID ::= 260
id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD          ProtocolIE-ID ::= 261
id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD          ProtocolIE-ID ::= 262
id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD          ProtocolIE-ID ::= 263
id-UL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD         ProtocolIE-ID ::= 264
id-UL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD         ProtocolIE-ID ::= 265
id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD   ProtocolIE-ID ::= 266
id-USCHs-to-Add                                             ProtocolIE-ID ::= 267
id-USCH-DeleteList-RL-ReconfPrepTDD                          ProtocolIE-ID ::= 268
id-USCH-InformationListIE-RL-AdditionRspTDD                  ProtocolIE-ID ::= 269
id-USCH-InformationListIEs-RL-SetupRspTDD                   ProtocolIE-ID ::= 270
id-USCH-Information                                         ProtocolIE-ID ::= 271
id-USCH-ModifyList-RL-ReconfPrepTDD                         ProtocolIE-ID ::= 272
id-USCHToBeAddedOrModifiedList-RL-ReconfReadyTDD            ProtocolIE-ID ::= 273
id-DL-Physical-Channel-Information-RL-SetupRqstTDD          ProtocolIE-ID ::= 274
id-UL-Physical-Channel-Information-RL-SetupRqstTDD          ProtocolIE-ID ::= 275
id-ClosedLoopMode1-SupportIndicator                        ProtocolIE-ID ::= 276
id-Unused-ProtocolIE-ID-277                                 ProtocolIE-ID ::= 277
id-STTD-SupportIndicator                                   ProtocolIE-ID ::= 279
id-CFNReportingIndicator                                   ProtocolIE-ID ::= 14
id-CNOriginatedPage-PagingRqst                             ProtocolIE-ID ::= 23
id-InnerLoopDLPCStatus                                     ProtocolIE-ID ::= 24
id-PropagationDelay                                        ProtocolIE-ID ::= 25
```

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id-RxTimingDeviationForTA                                              ProtocolIE-ID ::= 36
id-timeSlot-ISCP                                                       ProtocolIE-ID ::= 37
id-CCTrCH-InformationItem-RL-FailureInd                               ProtocolIE-ID ::= 15
id-CCTrCH-InformationItem-RL-RestoreInd                               ProtocolIE-ID ::= 16
id-CommonMeasurementAccuracy                                          ProtocolIE-ID ::= 280
id-CommonMeasurementObjectType-CM-Rprt                               ProtocolIE-ID ::= 281
id-CommonMeasurementObjectType-CM-Rqst                               ProtocolIE-ID ::= 282
id-CommonMeasurementObjectType-CM-Rsp                                ProtocolIE-ID ::= 283
id-CommonMeasurementType                                              ProtocolIE-ID ::= 284
id-CongestionCause                                                    ProtocolIE-ID ::= 18
id-SFN                                                                ProtocolIE-ID ::= 285
id-SFNReportingIndicator                                              ProtocolIE-ID ::= 286
id-InformationExchangeID                                              ProtocolIE-ID ::= 287
id-InformationExchangeObjectType-InfEx-Rprt                          ProtocolIE-ID ::= 288
id-InformationExchangeObjectType-InfEx-Rqst                          ProtocolIE-ID ::= 289
id-InformationExchangeObjectType-InfEx-Rsp                           ProtocolIE-ID ::= 290
id-InformationReportCharacteristics                                   ProtocolIE-ID ::= 291
id-InformationType                                                    ProtocolIE-ID ::= 292
id-neighbouring-LCR-TDD-CellInformation                               ProtocolIE-ID ::= 58
id-DL-Timeslot-ISCP-LCR-Information-RL-SetupRqstTDD                   ProtocolIE-ID ::= 65
id-RL-LCR-InformationResponse-RL-SetupRspTDD                          ProtocolIE-ID ::= 66
id-UL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD                     ProtocolIE-ID ::= 75
id-UL-DPCH-LCR-InformationItem-RL-SetupRspTDD                         ProtocolIE-ID ::= 76
id-DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD                     ProtocolIE-ID ::= 77
id-DL-DPCH-LCR-InformationItem-RL-SetupRspTDD                         ProtocolIE-ID ::= 78
id-DSCH-LCR-InformationListIEs-RL-SetupRspTDD                         ProtocolIE-ID ::= 79
id-USCH-LCR-InformationListIEs-RL-SetupRspTDD                         ProtocolIE-ID ::= 80
id-DL-Timeslot-ISCP-LCR-Information-RL-AdditionRqstTDD                ProtocolIE-ID ::= 81
id-RL-LCR-InformationResponse-RL-AdditionRspTDD                       ProtocolIE-ID ::= 86
id-UL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD                  ProtocolIE-ID ::= 87
id-UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD                      ProtocolIE-ID ::= 88
id-DL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD                  ProtocolIE-ID ::= 89
id-DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD                      ProtocolIE-ID ::= 94
id-DSCH-LCR-InformationListIEs-RL-AdditionRspTDD                      ProtocolIE-ID ::= 96
id-USCH-LCR-InformationListIEs-RL-AdditionRspTDD                      ProtocolIE-ID ::= 97
id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD                 ProtocolIE-ID ::= 98
id-UL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD           ProtocolIE-ID ::= 100
id-DL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD                 ProtocolIE-ID ::= 101
id-DL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD           ProtocolIE-ID ::= 104
id-UL-Timeslot-LCR-InformationList-PhyChReconfRqstTDD                ProtocolIE-ID ::= 105
id-DL-Timeslot-LCR-InformationList-PhyChReconfRqstTDD                ProtocolIE-ID ::= 106
id-timeSlot-ISCP-LCR-List-DL-PC-Rqst-TDD                              ProtocolIE-ID ::= 138
id-TSTD-Support-Indicator-RL-SetupRqstTDD                             ProtocolIE-ID ::= 139
id-RestrictionStateIndicator                                          ProtocolIE-ID ::= 142
id-Load-Value                                                         ProtocolIE-ID ::= 233
id-Load-Value-IncrDecrThres                                           ProtocolIE-ID ::= 234
id-OnModification                                                     ProtocolIE-ID ::= 235
id-Received-Total-Wideband-Power-Value                                ProtocolIE-ID ::= 236
id-Received-Total-Wideband-Power-Value-IncrDecrThres                 ProtocolIE-ID ::= 237
id-SFNSFNMeasurementThresholdInformation                             ProtocolIE-ID ::= 238
id-Transmitted-Carrier-Power-Value                                    ProtocolIE-ID ::= 239
id-Transmitted-Carrier-Power-Value-IncrDecrThres                    ProtocolIE-ID ::= 240
id-TUTRANGPSMeasurementThresholdInformation                         ProtocolIE-ID ::= 241
id-UL-Timeslot-ISCP-Value                                             ProtocolIE-ID ::= 242
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id-UL-Timeslot-ISCP-Value-IncrDecrThres                              ProtocolIE-ID ::= 243
id-Rx-Timing-Deviation-Value-LCR                                     ProtocolIE-ID ::= 293
id-DPC-Mode-Change-SupportIndicator                                  ProtocolIE-ID ::= 19
id-Unused-ProtocolIE-ID-247                                          ProtocolIE-ID ::= 247
id-Unused-ProtocolIE-ID-295                                          ProtocolIE-ID ::= 295
id-PrimaryCCPCH-RSCP-RL-ReconfPrepTDD                                ProtocolIE-ID ::= 202
id-DL-TimeSlot-ISCP-Info-RL-ReconfPrepTDD                            ProtocolIE-ID ::= 203
id-DL-Timeslot-ISCP-LCR-Information-RL-ReconfPrepTDD                 ProtocolIE-ID ::= 204
id-DSCH-RNTI                                                         ProtocolIE-ID ::= 249
id-DL-PowerBalancing-Information                                     ProtocolIE-ID ::= 296
id-DL-PowerBalancing-ActivationIndicator                            ProtocolIE-ID ::= 297
id-DL-PowerBalancing-UpdatedIndicator                               ProtocolIE-ID ::= 298
id-DL-ReferencePowerInformation                                      ProtocolIE-ID ::= 299
id-Enhanced-PrimaryCPICH-EcNo                                        ProtocolIE-ID ::= 224
id-IPDL-TDD-ParametersLCR                                            ProtocolIE-ID ::= 252
id-CellCapabilityContainer-FDD                                       ProtocolIE-ID ::= 300
id-CellCapabilityContainer-TDD                                       ProtocolIE-ID ::= 301
id-CellCapabilityContainer-TDD-LCR                                   ProtocolIE-ID ::= 302
id-RL-Specific-DCH-Info                                              ProtocolIE-ID ::= 317
id-RL-ReconfigurationRequestFDD-RL-InformationList                   ProtocolIE-ID ::= 318
id-RL-ReconfigurationRequestFDD-RL-Information-IEs                   ProtocolIE-ID ::= 319
id-RL-ReconfigurationRequestTDD-RL-Information                       ProtocolIE-ID ::= 321
id-CommonTransportChannelResourcesInitialisationNotRequired          ProtocolIE-ID ::= 250
id-DelayedActivation                                                 ProtocolIE-ID ::= 312
id-DelayedActivationList-RL-ActivationCmdFDD                         ProtocolIE-ID ::= 313
id-DelayedActivationInformation-RL-ActivationCmdFDD                  ProtocolIE-ID ::= 314
id-DelayedActivationList-RL-ActivationCmdTDD                         ProtocolIE-ID ::= 315
id-DelayedActivationInformation-RL-ActivationCmdTDD                  ProtocolIE-ID ::= 316
id-neighbouringTDDCellMeasurementInformationLCR                     ProtocolIE-ID ::= 251
id-UL-SIR-Target-CCTrCH-InformationItem-RL-SetupRspTDD               ProtocolIE-ID ::= 150
id-UL-SIR-Target-CCTrCH-LCR-InformationItem-RL-SetupRspTDD           ProtocolIE-ID ::= 151
id-PrimCCPCH-RSCP-DL-PC-RqstTDD                                      ProtocolIE-ID ::= 451
id-HSDSCH-FDD-Information                                            ProtocolIE-ID ::= 452
id-HSDSCH-FDD-Information-Response                                   ProtocolIE-ID ::= 453
id-HSDSCH-FDD-Update-Information                                     ProtocolIE-ID ::= 466
id-HSDSCH-Information-to-Modify                                      ProtocolIE-ID ::= 456
id-HSDSCHMacdFlowSpecificInformationList-RL-PreemptRequiredInd       ProtocolIE-ID ::= 516
id-HSDSCHMacdFlowSpecificInformationItem-RL-PreemptRequiredInd       ProtocolIE-ID ::= 517
id-HSDSCH-RNTI                                                       ProtocolIE-ID ::= 457
id-HSDSCH-TDD-Information                                            ProtocolIE-ID ::= 458
id-HSDSCH-TDD-Information-Response                                   ProtocolIE-ID ::= 459
id-HSDSCH-TDD-Update-Information                                     ProtocolIE-ID ::= 467
id-HSPDSCH-RL-ID                                                     ProtocolIE-ID ::= 463
id-HSDSCH-MACdFlows-to-Add                                           ProtocolIE-ID ::= 531
id-HSDSCH-MACdFlows-to-Delete                                        ProtocolIE-ID ::= 532
id-Angle-Of-Arrival-Value-LCR                                        ProtocolIE-ID ::= 148
id-TrafficClass                                                      ProtocolIE-ID ::= 158
id-Unused-ProtocolIE-ID-248                                          ProtocolIE-ID ::= 248
id-Unused-ProtocolIE-ID-253                                          ProtocolIE-ID ::= 253
id-PDSCH-RL-ID                                                       ProtocolIE-ID ::= 323
id-TimeSlot-RL-SetupRspTDD                                           ProtocolIE-ID ::= 325
id-GERAN-Cell-Capability                                             ProtocolIE-ID ::= 468
id-GERAN-Classmark                                                   ProtocolIE-ID ::= 469
id-DSCH-InitialWindowSize                                            ProtocolIE-ID ::= 480
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id-UL-Synchronisation-Parameters-LCR                                  ProtocolIE-ID ::= 464
id-SNA-Information                                                     ProtocolIE-ID ::= 479
id-MAChs-ResetIndicator                                               ProtocolIE-ID ::= 465
id-TDD-DL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD         ProtocolIE-ID ::= 481
id-TDD-UL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD         ProtocolIE-ID ::= 482
id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD                         ProtocolIE-ID ::= 483
id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD                       ProtocolIE-ID ::= 484
id-UL-CCTrCH-InformationItem-RL-AdditionRqstTDD                       ProtocolIE-ID ::= 485
id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD                       ProtocolIE-ID ::= 486
id-DL-CCTrCH-InformationItem-RL-AdditionRqstTDD                       ProtocolIE-ID ::= 487
id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD         ProtocolIE-ID ::= 488
id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD      ProtocolIE-ID ::= 489
id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD           ProtocolIE-ID ::= 490
id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD        ProtocolIE-ID ::= 491
id-UL-TimingAdvanceCtrl-LCR                                           ProtocolIE-ID ::= 492
id-HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD               ProtocolIE-ID ::= 493
id-HSPDSCH-Timeslot-InformationListLCR-PhyChReconfRqstTDD            ProtocolIE-ID ::= 494
id-HS-SICH-Reception-Quality                                          ProtocolIE-ID ::= 495
id-HS-SICH-Reception-Quality-Measurement-Value                       ProtocolIE-ID ::= 496
id-HSSICH-Info-DM-Rprt                                                ProtocolIE-ID ::= 497
id-HSSICH-Info-DM-Rqst                                                ProtocolIE-ID ::= 498
id-HSSICH-Info-DM                                                     ProtocolIE-ID ::= 499
id-CCTrCH-Maximum-DL-Power-RL-SetupRspTDD                            ProtocolIE-ID ::= 500
id-CCTrCH-Minimum-DL-Power-RL-SetupRspTDD                            ProtocolIE-ID ::= 501
id-CCTrCH-Maximum-DL-Power-RL-AdditionRspTDD                         ProtocolIE-ID ::= 502
id-CCTrCH-Minimum-DL-Power-RL-AdditionRspTDD                         ProtocolIE-ID ::= 503
id-CCTrCH-Maximum-DL-Power-RL-ReconfReadyTDD                         ProtocolIE-ID ::= 504
id-CCTrCH-Minimum-DL-Power-RL-ReconfReadyTDD                         ProtocolIE-ID ::= 505
id-Maximum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD  ProtocolIE-ID ::= 506
id-Minimum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD  ProtocolIE-ID ::= 507
id-DL-CCTrCH-InformationList-RL-ReconfRspTDD                         ProtocolIE-ID ::= 508
id-DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD                 ProtocolIE-ID ::= 509
id-Maximum-DL-Power-TimeslotLCR-InformationItem                     ProtocolIE-ID ::= 510
id-Minimum-DL-Power-TimeslotLCR-InformationItem                     ProtocolIE-ID ::= 511
id-TDD-Support-8PSK                                                   ProtocolIE-ID ::= 512
id-TDD-maxNrDLPhysicalchannels                                       ProtocolIE-ID ::= 513
id-ExtendedGSMCellIndividualOffset                                   ProtocolIE-ID ::= 514
id-RL-ParameterUpdateIndicationFDD-RL-InformationList               ProtocolIE-ID ::= 518
id-Primary-CPICH-Usage-For-Channel-Estimation                       ProtocolIE-ID ::= 519
id-Secondary-CPICH-Information                                       ProtocolIE-ID ::= 520
id-Secondary-CPICH-Information-Change                                ProtocolIE-ID ::= 521
id-Unused-ProtocolIE-ID-522                                          ProtocolIE-ID ::= 522
id-Unused-ProtocolIE-ID-523                                          ProtocolIE-ID ::= 523
id-RL-ParameterUpdateIndicationFDD-RL-Information-Item              ProtocolIE-ID ::= 524
id-Phase-Reference-Update-Indicator                                  ProtocolIE-ID ::= 525
id-Unidirectional-DCH-Indicator                                      ProtocolIE-ID ::= 526
id-RL-Information-RL-ReconfPrepTDD                                   ProtocolIE-ID ::= 527
id-Multiple-RL-InformationResponse-RL-ReconfReadyTDD               ProtocolIE-ID ::= 528
id-RL-ReconfigurationResponseTDD-RL-Information                      ProtocolIE-ID ::= 529
id-Satellite-Almanac-Information-ExtItem                             ProtocolIE-ID ::= 530
id-HSDSCH-Information-to-Modify-Unsynchronised                       ProtocolIE-ID ::= 533
id-TnlQos                                                             ProtocolIE-ID ::= 534
id-RTLoadValue                                                       ProtocolIE-ID ::= 535
id-NRTLoadInformationValue                                           ProtocolIE-ID ::= 536
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id-CellPortionID                                                        ProtocolIE-ID ::= 537
id-UpPTSInterferenceValue                                               ProtocolIE-ID ::= 538
id-PrimaryCCPCH-RSCP-Delta                                              ProtocolIE-ID ::= 539
id-UEMeasurementType                                                    ProtocolIE-ID ::= 540
id-UEMeasurementTimeslotInfoHCR                                         ProtocolIE-ID ::= 541
id-UEMeasurementTimeslotInfoLCR                                         ProtocolIE-ID ::= 542
id-UEMeasurementReportCharacteristics                                   ProtocolIE-ID ::= 543
id-UEMeasurementParameterModAllow                                       ProtocolIE-ID ::= 544
id-UEMeasurementValueInformation                                        ProtocolIE-ID ::= 545
id-InterfacesToTraceItem                                                ProtocolIE-ID ::= 546
id-ListOfInterfacesToTrace                                              ProtocolIE-ID ::= 547
id-TraceDepth                                                           ProtocolIE-ID ::= 548
id-TraceRecordingSessionReference                                       ProtocolIE-ID ::= 549
id-TraceReference                                                       ProtocolIE-ID ::= 550
id-UEIdentity                                                           ProtocolIE-ID ::= 551
id-NACC-Related-Data                                                    ProtocolIE-ID ::= 552
id-GSM-Cell-InfEx-Rqst                                                  ProtocolIE-ID ::= 553
id-MeasurementRecoveryBehavior                                          ProtocolIE-ID ::= 554
id-MeasurementRecoveryReportingIndicator                                ProtocolIE-ID ::= 555
id-MeasurementRecoverySupportIndicator                                  ProtocolIE-ID ::= 556
id-DL-DPCH-Power-Information-RL-ReconfPrepFDD                           ProtocolIE-ID ::= 557
id-F-DPCH-Information-RL-ReconfPrepFDD                                  ProtocolIE-ID ::= 558
id-F-DPCH-Information-RL-SetupRqstFDD                                   ProtocolIE-ID ::= 559
id-MBMS-Bearer-Service-List                                            ProtocolIE-ID ::= 560
id-MBMS-Bearer-Service-List-InfEx-Rsp                                  ProtocolIE-ID ::= 561
id-Active-MBMS-Bearer-ServiceFDD                                       ProtocolIE-ID ::= 562
id-Active-MBMS-Bearer-ServiceTDD                                       ProtocolIE-ID ::= 563
id-Old-URA-ID                                                          ProtocolIE-ID ::= 564
id-UE-State                                                            ProtocolIE-ID ::= 568
id-URA-ID                                                              ProtocolIE-ID ::= 569
id-HARQ-Preamble-Mode                                                  ProtocolIE-ID ::= 571
id-SynchronisationIndicator                                           ProtocolIE-ID ::= 572
id-UL-DPDCHIndicatorEDCH                                               ProtocolIE-ID ::= 573
id-EDPCH-Information                                                   ProtocolIE-ID ::= 574
id-RL-Specific-EDCH-Information                                        ProtocolIE-ID ::= 575
id-EDCH-RL-Indication                                                  ProtocolIE-ID ::= 576
id-EDCH-FDD-Information                                                ProtocolIE-ID ::= 577
id-EDCH-RLSet-Id                                                       ProtocolIE-ID ::= 578
id-Serving-EDCHRL-Id                                                   ProtocolIE-ID ::= 579
id-EDCH-FDD-DL-ControlChannelInformation                              ProtocolIE-ID ::= 580
id-EDCH-FDD-InformationResponse                                        ProtocolIE-ID ::= 581
id-EDCH-MACdFlows-To-Add                                               ProtocolIE-ID ::= 582
id-EDCH-FDD-Information-To-Modify                                      ProtocolIE-ID ::= 583
id-EDCH-MACdFlows-To-Delete                                            ProtocolIE-ID ::= 584
id-EDPCH-Information-RLReconfRequest-FDD                               ProtocolIE-ID ::= 585
id-EDCH-MacdFlowSpecificInformationList-RL-PreemptRequiredInd          ProtocolIE-ID ::= 586
id-EDCH-MacdFlowSpecificInformationItem-RL-PreemptRequiredInd          ProtocolIE-ID ::= 587
id-EDCH-MacdFlowSpecificInformationList-RL-CongestInd                  ProtocolIE-ID ::= 588
id-EDCH-MacdFlowSpecificInformationItem-RL-CongestInd                  ProtocolIE-ID ::= 589
id-MBMS-Bearer-Service-Full-Address                                   ProtocolIE-ID ::= 590
id-Initial-DL-DPCH-TimingAdjustment                                   ProtocolIE-ID ::= 591
id-Initial-DL-DPCH-TimingAdjustment-Allowed                           ProtocolIE-ID ::= 592
id-User-Plane-Congestion-Fields-Inclusion                             ProtocolIE-ID ::= 593
id-HARQ-Preamble-Mode-Activation-Indicator                            ProtocolIE-ID ::= 594
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id-multiple-DedicatedMeasurementValueList-TDD-DM-Rsp                  ProtocolIE-ID ::= 595
id-multiple-DedicatedMeasurementValueList-LCR-TDD-DM-Rsp             ProtocolIE-ID ::= 596
id-ProvidedInformation                                               ProtocolIE-ID ::= 597
id-Active-MBMS-Bearer-ServiceFDD-PFL                                 ProtocolIE-ID ::= 598
id-Active-MBMS-Bearer-ServiceTDD-PFL                                 ProtocolIE-ID ::= 599
id-FrequencyBandIndicator                                            ProtocolIE-ID ::= 600
id-Serving-cell-change-CFN                                           ProtocolIE-ID ::= 601
id-HS-DSCH-serving-cell-change-information                           ProtocolIE-ID ::= 602
id-HS-DSCH-serving-cell-change-informationResponse                  ProtocolIE-ID ::= 603
id-E-DCH-Serving-cell-change-informationResponse                    ProtocolIE-ID ::= 604
id-secondary-LCR-CCPCH-Info-TDD                                      ProtocolIE-ID ::= 605
id-E-DCH-FDD-Update-Information                                      ProtocolIE-ID ::= 606
id-Inter-Frequency-Cell-List                                         ProtocolIE-ID ::= 607
id-Inter-Frequency-Cell-Information                                  ProtocolIE-ID ::= 608
id-multiple-HSSICHMeasurementValueList-TDD-DM-Rsp                    ProtocolIE-ID ::= 609
id-TDD-Support-PLCCH                                                 ProtocolIE-ID ::= 610
id-PLCCH-Information-UL-TimeslotLCR-Info                             ProtocolIE-ID ::= 611
id-PLCCH-Information-PhyChReconfRqstTDD                              ProtocolIE-ID ::= 612
id-TDD768-maxNrDLPhysicalchannelsTS                                 ProtocolIE-ID ::= 613
id-RL-InformationResponse-RL-AdditionRspTDD768                      ProtocolIE-ID ::= 614
id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD768                 ProtocolIE-ID ::= 615
id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD768                 ProtocolIE-ID ::= 616
id-UL-DPCH-InformationItem-RL-AdditionRspTDD768                     ProtocolIE-ID ::= 617
id-DL-DPCH-InformationItem-RL-AdditionRspTDD768                     ProtocolIE-ID ::= 618
id-UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD768                ProtocolIE-ID ::= 619
id-UL-Timeslot-InformationModifyList-RL-ReconfReadyTDD768           ProtocolIE-ID ::= 620
id-DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD768                ProtocolIE-ID ::= 621
id-DL-Timeslot-InformationModifyList-RL-ReconfReadyTDD768           ProtocolIE-ID ::= 622
id-secondary-CCPCH-Info-RL-ReconfReadyTDD768                        ProtocolIE-ID ::= 623
id-hSSCCH-TDD-Specific-InfoList-Response768                         ProtocolIE-ID ::= 624
id-hSPDSCH-TDD-Specific-InfoList-Response768                        ProtocolIE-ID ::= 625
id-HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD768           ProtocolIE-ID ::= 626
id-UL-Timeslot-InformationList-PhyChReconfRqstTDD768                ProtocolIE-ID ::= 627
id-DL-Timeslot-InformationList-PhyChReconfRqstTDD768                ProtocolIE-ID ::= 628
id-CellCapabilityContainer-TDD768                                   ProtocolIE-ID ::= 629
id-multiple-DedicatedMeasurementValueList-TDD768-DM-Rsp             ProtocolIE-ID ::= 630
id-neighbouringTDDCellMeasurementInformation768                     ProtocolIE-ID ::= 631
id-UEMeasurementTimeslotInfo768                                     ProtocolIE-ID ::= 632
id-Rx-Timing-Deviation-Value-768                                    ProtocolIE-ID ::= 633
id-UEMeasurementValueTransmittedPowerList768                        ProtocolIE-ID ::= 634
id-UEMeasurementValueTimeslotISCPList768                            ProtocolIE-ID ::= 635
id-RL-InformationResponse-RL-SetupRspTDD768                         ProtocolIE-ID ::= 636
id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD768                    ProtocolIE-ID ::= 637
id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD768                    ProtocolIE-ID ::= 638
id-UL-DPCH-InformationItem-RL-SetupRspTDD768                        ProtocolIE-ID ::= 639
id-DL-DPCH-InformationItem-RL-SetupRspTDD768                        ProtocolIE-ID ::= 640
id-TDD768-minimumSpreadingFactor-UL                                ProtocolIE-ID ::= 641
id-TDD768-minimumSpreadingFactor-DL                                ProtocolIE-ID ::= 642
id-TDD768-maxNrDLPhysicalchannels                                  ProtocolIE-ID ::= 643
id-DL-DPCH-InformationDeleteList768-RL-ReconfReadyTDD              ProtocolIE-ID ::= 644
id-DPCH-ID768-DM-Rsp                                                ProtocolIE-ID ::= 645
id-DPCH-ID768-DM-Rqst                                               ProtocolIE-ID ::= 646
id-DPCH-ID768-DM-Rprt                                               ProtocolIE-ID ::= 647
id-EDPCH-Information-RLAdditionReq-FDD                              ProtocolIE-ID ::= 648
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id-HSDSCH-Configured-Indicator                                         ProtocolIE-ID ::= 649
id-RxTimingDeviationForTAext                                           ProtocolIE-ID ::= 650
id-RxTimingDeviationForTA768                                           ProtocolIE-ID ::= 651
id-Rx-Timing-Deviation-Value-ext                                       ProtocolIE-ID ::= 652
id-E-DCH-PowerOffset-for-SchedulingInfo                                ProtocolIE-ID ::= 653
id-TrCH-SrcStatisticsDescr                                             ProtocolIE-ID ::= 654
id-E-DCH-Information                                                    ProtocolIE-ID ::= 655
id-E-DCH-Serving-RL-ID                                                  ProtocolIE-ID ::= 656
id-E-DCH-Information-Reconfig                                           ProtocolIE-ID ::= 657
id-E-DCH-Information-Response                                           ProtocolIE-ID ::= 658
id-E-DCH-768-Information                                                ProtocolIE-ID ::= 659
id-E-DCH-768-Information-Reconfig                                       ProtocolIE-ID ::= 660
id-E-DCH-768-Information-Response                                       ProtocolIE-ID ::= 661
id-ExtendedPropagationDelay                                            ProtocolIE-ID ::= 662
id-Extended-Round-Trip-Time-Value                                      ProtocolIE-ID ::= 663
id-AlternativeFormatReportingIndicator                                 ProtocolIE-ID ::= 664
id-DCH-Indicator-For-E-DCH-HSDPA-Operation                             ProtocolIE-ID ::= 665
id-E-RGCH-E-HICH-ChannelisationCodeValidityIndicator                   ProtocolIE-ID ::= 666
id-E-DCH-Minimum-Set-E-TFCIValidityIndicator                           ProtocolIE-ID ::= 667
id-Fast-Reconfiguration-Mode                                           ProtocolIE-ID ::= 668
id-Fast-Reconfiguration-Permission                                     ProtocolIE-ID ::= 669
id-Continuous-Packet-Connectivity-DTX-DRX-Information                  ProtocolIE-ID ::= 670
id-Continuous-Packet-Connectivity-HS-SCCH-Less-Information             ProtocolIE-ID ::= 671
id-Continuous-Packet-Connectivity-HS-SCCH-Less-Information-Response    ProtocolIE-ID ::= 672
id-CPC-Information                                                      ProtocolIE-ID ::= 673
id-MIMO-InformationResponse                                            ProtocolIE-ID ::= 675
id-E-DCH-LCR-Information                                                ProtocolIE-ID ::= 677
id-E-DCH-LCR-Information-Reconfig                                       ProtocolIE-ID ::= 678
id-E-DCH-LCR-Information-Response                                       ProtocolIE-ID ::= 679
id-HS-PDSCH-Code-Change-Grant                                          ProtocolIE-ID ::= 680
id-HS-PDSCH-Code-Change-Indicator                                      ProtocolIE-ID ::= 681
id-Extended-SRNC-ID                                                    ProtocolIE-ID ::= 682
id-Extended-RNC-ID                                                     ProtocolIE-ID ::= 683
id-SixtyfourQAM-DL-SupportIndicator                                    ProtocolIE-ID ::= 684
id-Enhanced-FACH-Support-Indicator                                     ProtocolIE-ID ::= 685
id-Enhanced-FACH-Information-ResponseFDD                               ProtocolIE-ID ::= 686
id-HSDSCH-MACdPDUSizeFormat                                            ProtocolIE-ID ::= 690
id-MaximumMACdPDU-SizeExtended                                         ProtocolIE-ID ::= 691
id-F-DPCH-SlotFormat                                                    ProtocolIE-ID ::= 692
id-F-DPCH-SlotFormatSupportRequest                                     ProtocolIE-ID ::= 693
id-eDCH-MACdFlow-Retransmission-Timer-LCR                              ProtocolIE-ID ::= 694
id-Max-UE-DTX-Cycle                                                    ProtocolIE-ID ::= 695
id-GANSS-Common-Data                                                   ProtocolIE-ID ::= 699
id-GANSS-Information                                                    ProtocolIE-ID ::= 700
id-GANSS-Generic-Data                                                  ProtocolIE-ID ::= 701
id-TUTRANGANSSMeasurementThresholdInformation                          ProtocolIE-ID ::= 702
id-TUTRANGANSSMeasurementValueInformation                              ProtocolIE-ID ::= 703
id-Ext-Reference-E-TFCI-PO                                             ProtocolIE-ID ::= 705
id-Ext-Max-Bits-MACe-PDU-non-scheduled                                 ProtocolIE-ID ::= 706
id-HARQ-MemoryPartitioningInfoExtForMIMO                               ProtocolIE-ID ::= 707
id-MIMO-ActivationIndicator                                            ProtocolIE-ID ::= 708
id-MIMO-Mode-Indicator                                                 ProtocolIE-ID ::= 709
id-MIMO-N-M-Ratio                                                      ProtocolIE-ID ::= 710
id-TransportBearerNotSetupIndicator                                    ProtocolIE-ID ::= 711
```

```
id-TransportBearerNotRequestedIndicator                              ProtocolIE-ID ::= 712
id-PowerControlGAP                                                   ProtocolIE-ID ::= 713
id-UARFCNforNt                                                       ProtocolIE-ID ::= 714
id-LCRTDD-uplink-Physical-Channel-Capability                        ProtocolIE-ID ::= 715
id-number-Of-Supported-Carriers                                     ProtocolIE-ID ::= 716
id-HSSICH-SIRTarget                                                 ProtocolIE-ID ::= 717
id-HSSICH-TPC-StepSize                                              ProtocolIE-ID ::= 718
id-tSN-Length                                                       ProtocolIE-ID ::= 719
id-HS-SICH-ID-Extension                                             ProtocolIE-ID ::= 720
id-HSSICH-Info-DM-Rqst-Extension                                    ProtocolIE-ID ::= 721
id-multipleFreq-HSPDSCH-InformationList-ResponseTDDLCR              ProtocolIE-ID ::= 722
id-multicarrier-number                                              ProtocolIE-ID ::= 723
id-UPPCHPositionLCR                                                 ProtocolIE-ID ::= 724
id-UpPCH-InformationList-LCRTDD                                     ProtocolIE-ID ::= 725
id-UpPCH-InformationItem-LCRTDD                                     ProtocolIE-ID ::= 726
id-Multiple-PLMN-List                                               ProtocolIE-ID ::= 727
id-UE-Capabilities-Info                                             ProtocolIE-ID ::= 728
id-FrameOffset                                                      ProtocolIE-ID ::= 729
id-ChipOffset                                                       ProtocolIE-ID ::= 730
id-Enhanced-PCH-Capability                                          ProtocolIE-ID ::= 731
id-SixteenQAM-UL-Operation-Indicator                               ProtocolIE-ID ::= 732
id-E-TFCI-Boost-Information                                         ProtocolIE-ID ::= 733
id-SixtyfourQAM-UsageAllowedIndicator                              ProtocolIE-ID ::= 734
id-SixtyfourQAM-DL-UsageIndicator                                  ProtocolIE-ID ::= 735
id-Default-Serving-Grant-in-DTX-Cycle2                             ProtocolIE-ID ::= 736
id-E-DPDCH-PowerInterpolation                                      ProtocolIE-ID ::= 737
id-Extended-E-DCH-LCRTDD-PhysicalLayerCategory                     ProtocolIE-ID ::= 738
id-Continuous-Packet-Connectivity-HS-SCCH-Less-Deactivate-Indicator ProtocolIE-ID ::= 740
id-E-DCH-DL-Control-Channel-Change-Information                     ProtocolIE-ID ::= 741
id-E-DCH-DL-Control-Channel-Grant-Information                      ProtocolIE-ID ::= 742
id-MaximumNumber-Of-Retransmission-For-SchedulingInfo-LCRTDD       ProtocolIE-ID ::= 743
id-E-DCH-RetransmissionTimer-For-SchedulingInfo-LCRTDD             ProtocolIE-ID ::= 744
id-E-PUCH-PowerControlGAP                                          ProtocolIE-ID ::= 745
id-HSDSCH-TBSizeTableIndicator                                     ProtocolIE-ID ::= 746
id-DGANSS-Corrections-Req                                          ProtocolIE-ID ::= 748
id-E-AGCH-Table-Choice                                            ProtocolIE-ID ::= 749
id-MultiCarrier-HSDSCH-Physical-Layer-Category                    ProtocolIE-ID ::= 803
id-MACes-Maximum-Bitrate-LCR                                       ProtocolIE-ID ::= 824
END
```

9.3.7   Container Definitions

```
-- *************************************************************
--
-- Container definitions
--
-- *************************************************************

RNSAP-Containers {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-Containers (5)  }

DEFINITIONS AUTOMATIC TAGS ::=
```

```
BEGIN

-- ***************************************************************
--
-- IE parameter types from other modules.
--
-- ***************************************************************

IMPORTS
    maxPrivateIEs,
    maxProtocolExtensions,
    maxProtocolIEs,
    Criticality,
    Presence,
    PrivateIE-ID,
    ProtocolIE-ID
FROM RNSAP-CommonDataTypes;

-- ***************************************************************
--
-- Class Definition for Protocol IEs
--
-- ***************************************************************

RNSAP-PROTOCOL-IES ::= CLASS {
    &id                ProtocolIE-ID                UNIQUE,
    &criticality            Criticality,
    &Value,
    &presence          Presence
}
WITH SYNTAX {
    ID              &id
    CRITICALITY         &criticality
    TYPE              &Value
    PRESENCE          &presence
}

-- ***************************************************************
--
-- Class Definition for Protocol IEs
--
-- ***************************************************************

RNSAP-PROTOCOL-IES-PAIR ::= CLASS {
    &id                ProtocolIE-ID                UNIQUE,
    &firstCriticality       Criticality,
    &FirstValue,
    &secondCriticality      Criticality,
    &SecondValue,
    &presence          Presence
}
WITH SYNTAX {
    ID              &id
```

ETSI

```
    FIRST CRITICALITY       &firstCriticality
    FIRST TYPE              &FirstValue
    SECOND CRITICALITY      &secondCriticality
    SECOND TYPE             &SecondValue
    PRESENCE                &presence
}

-- *************************************************************
--
-- Class Definition for Protocol Extensions
--
-- *************************************************************

RNSAP-PROTOCOL-EXTENSION ::= CLASS {
    &id             ProtocolIE-ID               UNIQUE,
    &criticality          Criticality,
    &Extension,
    &presence       Presence
}
WITH SYNTAX {
    ID              &id
    CRITICALITY     &criticality
    EXTENSION       &Extension
    PRESENCE        &presence
}

-- *************************************************************
--
-- Class Definition for Private IEs
--
-- *************************************************************

RNSAP-PRIVATE-IES ::= CLASS {
    &id             PrivateIE-ID,
    &criticality          Criticality,
    &Value,
    &presence       Presence
}
WITH SYNTAX {
    ID              &id
    CRITICALITY     &criticality
    TYPE            &Value
    PRESENCE        &presence
}

-- *************************************************************
--
-- Container for Protocol IEs
--
-- *************************************************************

ProtocolIE-Container {RNSAP-PROTOCOL-IES : IEsSetParam} ::=
    SEQUENCE (SIZE (0..maxProtocolIEs)) OF
    ProtocolIE-Field {{IEsSetParam}}
```

```
ProtocolIE-Single-Container {RNSAP-PROTOCOL-IES : IEsSetParam} ::=
    ProtocolIE-Field {{IEsSetParam}}

ProtocolIE-Field {RNSAP-PROTOCOL-IES : IEsSetParam} ::= SEQUENCE {
    id                  RNSAP-PROTOCOL-IES.&id                 ({IEsSetParam}),
    criticality         RNSAP-PROTOCOL-IES.&criticality        ({IEsSetParam}{@id}),
    value               RNSAP-PROTOCOL-IES.&Value              ({IEsSetParam}{@id})
}

-- ***************************************************************
--
-- Container for Protocol IE Pairs
--
-- ***************************************************************

ProtocolIE-ContainerPair {RNSAP-PROTOCOL-IES-PAIR : IEsSetParam} ::=
    SEQUENCE (SIZE (0..maxProtocolIEs)) OF
    ProtocolIE-FieldPair {{IEsSetParam}}

ProtocolIE-FieldPair {RNSAP-PROTOCOL-IES-PAIR : IEsSetParam} ::= SEQUENCE {
    id                  RNSAP-PROTOCOL-IES-PAIR.&id            ({IEsSetParam}),
    firstCriticality        RNSAP-PROTOCOL-IES-PAIR.&firstCriticality   ({IEsSetParam}{@id}),
    firstValue          RNSAP-PROTOCOL-IES-PAIR.&FirstValue         ({IEsSetParam}{@id}),
    secondCriticality       RNSAP-PROTOCOL-IES-PAIR.&secondCriticality  ({IEsSetParam}{@id}),
    secondValue         RNSAP-PROTOCOL-IES-PAIR.&SecondValue        ({IEsSetParam}{@id})
}

-- ***************************************************************
--
-- Container Lists for Protocol IE Containers
--
-- ***************************************************************

ProtocolIE-ContainerList {INTEGER : lowerBound, INTEGER : upperBound, RNSAP-PROTOCOL-IES : IEsSetParam} ::=
    SEQUENCE (SIZE (lowerBound..upperBound)) OF
    ProtocolIE-Container {{IEsSetParam}}

ProtocolIE-ContainerPairList {INTEGER : lowerBound, INTEGER : upperBound, RNSAP-PROTOCOL-IES-PAIR : IEsSetParam} ::=
    SEQUENCE (SIZE (lowerBound..upperBound)) OF
    ProtocolIE-ContainerPair {{IEsSetParam}}

-- ***************************************************************
--
-- Container for Protocol Extensions
--
-- ***************************************************************

ProtocolExtensionContainer {RNSAP-PROTOCOL-EXTENSION : ExtensionSetParam} ::=
    SEQUENCE (SIZE (1..maxProtocolExtensions)) OF
    ProtocolExtensionField {{ExtensionSetParam}}

ProtocolExtensionField {RNSAP-PROTOCOL-EXTENSION : ExtensionSetParam} ::= SEQUENCE {
    id              RNSAP-PROTOCOL-EXTENSION.&id                ({ExtensionSetParam}),
```

```
    criticality          RNSAP-PROTOCOL-EXTENSION.&criticality      ({ExtensionSetParam}{@id}),
    extensionValue          RNSAP-PROTOCOL-EXTENSION.&Extension      ({ExtensionSetParam}{@id})
}


-- **************************************************************
--
-- Container for Private IEs
--
-- **************************************************************

PrivateIE-Container {RNSAP-PRIVATE-IES : IEsSetParam} ::=
    SEQUENCE (SIZE (1..maxPrivateIEs)) OF
    PrivateIE-Field {{IEsSetParam}}

PrivateIE-Field {RNSAP-PRIVATE-IES : IEsSetParam} ::= SEQUENCE {
    id              RNSAP-PRIVATE-IES.&id              ({IEsSetParam}),
    criticality          RNSAP-PRIVATE-IES.&criticality      ({IEsSetParam}{@id}),
    value            RNSAP-PRIVATE-IES.&Value        ({IEsSetParam}{@id})
}

END
```

9.4   Message Transfer Syntax

RNSAP shall use the ASN.1 Basic Packed Encoding Rules (BASIC-PER) Aligned Variant as transfer syntax as specified in ref. [20].

9.5   Timers

T $_{Preempt}$

- Specifies the maximum time that a DRNS may wait for pre-emption of resources for establishment or reconfiguration of Radio Links.

10   Handling of Unknown, Unforeseen and Erroneous Protocol Data

10.1   General

Protocol Error cases can be divided into three classes:

1.   Transfer Syntax Error;

2.   Abstract Syntax Error;

3.   Logical Error.

Protocol errors can occur in the following functions within a receiving node.
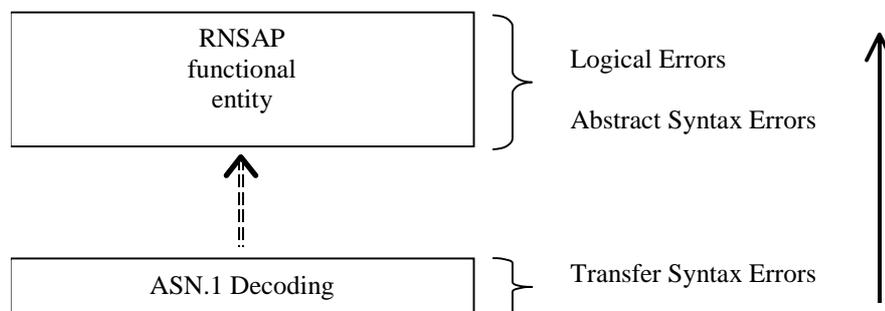
Figure 34: Protocol Errors in RNSAP

The information stated in subclauses 10.2, 10.3 and 10.4, to be included in the message used when reporting an error, is what at minimum shall be included. Other optional information elements within the message may also be included, if available. This is also valid for the case when the reporting is done with a response message. The latter is an exception to what is stated in subclause 4.1.

10.2   Transfer Syntax Error

A Transfer Syntax Error occurs when the receiver is not able to decode the received physical message. Transfer syntax errors are always detected in the process of ASN.1 decoding. If a Transfer Syntax Error occurs, the receiver should initiate Error Indication procedure with appropriate cause value for the Transfer Syntax protocol error.

Examples for Transfer Syntax Errors are:

- Violation of value ranges in ASN.1 definition of messages. e.g.: If an IE has a defined value range of 0 to 10 (ASN.1: INTEGER (0..10)), and 12 will be received, then this will be treated as a transfer syntax error;

- Violation in list element constraints. e.g.: If a list is defined as containing 1 to 10 elements, and 12 elements will be received, than this case will be handled as a transfer syntax error;

- Missing mandatory elements in ASN.1 SEQUENCE definitions (as sent by the originator of the message);

- Wrong order of elements in ASN.1 SEQUENCE definitions (as sent by the originator of the message).

10.3 Abstract Syntax Error

10.3.1 General

An Abstract Syntax Error occurs when the receiving functional RNSAP entity:

1. Receives IEs or IE groups that cannot be understood (unknown IE id);

2. Receives IEs for which the logical range is violated (e.g.: ASN.1 definition: 0 to 15, the logical range is 0 to 10 (values 11 to 15 are undefined), and 12 will be received; this case will be handled as an abstract syntax error using criticality information sent by the originator of the message);

3. Does not receive IEs or IE groups but according to the specified presence of the concerned object, the IEs or IE groups should have been present in the received message;

4. Receives IEs or IE groups that are defined to be part of that message in wrong order or with too many occurrences of the same IE or IE group;

5. receives IEs or IE groups but according to the conditional presence of the concerned object and the specified condition, the IEs or IE groups should not have been present in the received message.

Cases 1 and 2 (not comprehended IE/IE group) are handled based on received Criticality information. Case 3 (missing IE/IE group) is handled based on Criticality information and Presence information for the missing IE/IE group specified in the version of the specification used by the receiver. Case 4 (IEs or IE groups in wrong order or with too many occurrences) and Case 5 (erroneously present conditional IEs or IE groups) result in rejecting the procedure.

If an Abstract Syntax Error occurs, the receiver shall read the remaining message and shall then for each detected Abstract Syntax Error that belong to cases 1-3 act according to the Criticality Information and Presence Information for the IE/IE group due to which Abstract Syntax Error occurred in accordance with subclauses 10.3.4 and 10.3.5. The handling of cases 4 and 5 is specified in subclause 10.3.6.

10.3.2 Criticality Information

In the RNSAP messages there is criticality information set for individual IEs and/or IE groups. This criticality information instructs the receiver how to act when receiving an IE or an IE group that is not comprehended, i.e. the entire item (IE or IE group) which is not (fully or partially) comprehended shall be treated in accordance with its own criticality information as specified in subclause 10.3.4.

In addition, the criticality information is used in case of the missing IE/IE group abstract syntax error (see subclause 10.3.5).

The receiving node shall take different actions depending on the value of the Criticality Information. The three possible values of the Criticality Information for an IE/IE group are:

1. Reject IE;

2. Ignore IE and Notify Sender;

3. Ignore IE.

The following rules restrict when a receiving entity may consider an IE, an IE group or an EP not comprehended (not implemented), and when action based on criticality information is applicable:

1. IE or IE group: When one new or modified IE or IE group is implemented for one EP from a standard version, then other new or modified IEs or IE groups specified for that EP in that standard version shall be considered comprehended by a receiving entity (some may still remain unsupported).

2. EP: The comprehension of different EPs within a standard version or between different standard versions is not mandated. Any EP that is not supported may be considered not comprehended, even if another EP from that standard version is comprehended, and action based on criticality shall be applied.

10.3.3   Presence Information

For many IEs/IE groups which are optional according to the ASN.1 transfer syntax, RNSAP specifies separately if the presence of these IEs/IE groups is optional or mandatory with respect to RNS application by means of the presence field f the concerned object of class RNSAP-PROTOCOL-IES, RNSAP-PROTOCOL-IES-PAIR, RNSAP-PROTOCOL-EXTENSION or RNSAP-PRIVATE-IES.

The presence field of the indicated classes supports three values:

1. Optional;

2. Conditional;

3. Mandatory.

If an IE/IE group is not included in a received message and the presence of the IE/IE group is mandatory or the presence is conditional and the condition is true according to the version of the specification used by the receiver, an abstract syntax error occurs due to a missing IE/IE group.

If an IE/IE group is included in a received message and the presence of the IE/IE group is conditional and the condition is false according to the version of the specification used by the receiver, an abstract syntax error occurs due to this erroneously present conditional IE/IE group.

10.3.4   Not Comprehended IE/IE Group

10.3.4.1   Procedure ID

The receiving node shall treat the different types of received criticality information of the *Procedure ID* according to the following:

Reject IE:

- If a message is received with a *Procedure ID* marked with "*Reject IE*" which the receiving node does not comprehend, the receiving node shall reject the procedure using the Error Indication procedure.

Ignore IE and Notify Sender:

- If a message is received with a *Procedure ID* marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the procedure and initiate the Error Indication procedure.

Ignore IE:

- If a message is received with a *Procedure ID* marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the procedure.

When using the Error Indication procedure to reject a procedure or to report an ignored procedure it shall include the *Procedure ID* IE, the *Triggering Message* IE, and the *Procedure Criticality* IE in the *Criticality Diagnostics* IE.

10.3.4.1A   Type of Message

When the receiving node cannot decode the *Type of Message* IE, the Error Indication procedure shall be initiated with an appropriate cause value.

10.3.4.2   IEs Other Than the Procedure ID and Type of Message

The receiving node shall treat the different types of received criticality information of an IE/IE group other than the *Procedure ID* IE and *Type of Message* IE according to the following:

Reject IE:

- If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Reject IE*" which the receiving node does not comprehend; none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the rejection of one or more IEs/IE groups using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.

- If a message *initiating* a procedure that does not have a message to report unsuccessful outcome is received containing one or more IEs/IE groups marked with "*Reject IE*" which the receiving node does not comprehend, the receiving node shall terminate the procedure and initiate the Error Indication procedure.

- If a *response* message is received containing one or more IEs/IE groups marked with "*Reject IE*, that the receiving node does not comprehend, the receiving node shall consider the procedure as unsuccessfully terminated and initiate local error handling.

Ignore IE and Notify Sender:

- If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups, and report in the response message of the procedure that one or more IEs/IE groups have been ignored. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the response message, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.

- If a message *initiating* a procedure that does not have a message to report the outcome of the procedure is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups, and initiate the Error Indication procedure to report that one or more IEs/IE groups have been ignored.

- If a *response* message is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups and initiate the Error Indication procedure.

Ignore IE:

- If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups and continue with the procedure as if the not comprehended IEs/IE groups were not received using the understood IEs/IE groups.

- If a *response* message is received containing one or more IEs/IE groups marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups and continue with the procedure as if the not comprehended IEs/IE groups were not received using the understood IEs/IE groups.

When reporting not comprehended IEs/IE groups marked with "*Reject IE*" or "*Ignore IE and Notify Sender*" using a response message defined for the procedure, the *Information Element Criticality Diagnostics* IE shall be included in the *Criticality Diagnostics* IE for each reported IE/IE group. In the *Information Element Criticality Diagnostics* IE the *Repetition Number* IE shall be included and in addition, if the not comprehended IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the *Message Structure* IE shall be included.

When reporting not comprehended IEs/IE groups marked with "*Reject IE*" or "*Ignore IE and Notify Sender*" using the Error Indication procedure, the *Procedure ID* IE, the *Triggering Message* IE, *Procedure Criticality* IE, the *Transaction ID* IE, and the *Information Element Criticality Diagnostics* IE shall be included in the *Criticality Diagnostics* IE for each reported IE/IE group. In the *Information Element Criticality Diagnostics* IE the *Repetition Number* IE shall be

included and in addition, if the not comprehended IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the *Message Structure* IE shall be included.

10.3.5   Missing IE or IE Group

The receiving node shall treat the missing IE/IE group according to the criticality information for the missing IE/IE group in the received message specified in the version of this specification used by the receiver:

Reject IE:

- If a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Reject IE*"; none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the missing IEs/IE groups using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.

- If a received message *initiating* a procedure that does not have a message to report unsuccessful outcome is missing one or more IEs/IE groups with specified criticality "*Reject IE*", the receiving node shall terminate the procedure and initiate the Error Indication procedure.

- If a received *response* message is missing one or more IEs/IE groups with specified criticality "*Reject IE*, the receiving node shall consider the procedure as unsuccessfully terminated and initiate local error handling.

Ignore IE and Notify Sender:

- If a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message and report in the response message of the procedure that one or more IEs/IE groups were missing. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the response message, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.

- If a received message *initiating* a procedure that does not have a message to report the outcome of the procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message and initiate the Error Indication procedure to report that one or more IEs/IE groups were missing.

- If a received *response* message is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message and initiate the Error Indication procedure to report that one or more IEs/IE groups were missing.

Ignore IE:

- If a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message.

- If a received *response* message is missing one or more IEs/IE groups with specified criticality "*Ignore IE*", the receiving node shall ignore that those IEs/IE groups are missing and continue with the procedure based on the other IEs/IE groups present in the message.

When reporting missing IEs/IE groups with specified criticality "*Reject IE*" or "*Ignore IE and Notify Sender*" using a response message defined for the procedure, the *Information Element Criticality Diagnostics* IE shall be included in the *Criticality Diagnostics* IE for each reported IE/IE group. In the *Information Element Criticality Diagnostics* IE the *Repetition Number* IE shall be included and in addition, if the missing IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the *Message Structure* IE shall be included.

When reporting missing IEs/IE groups with specified criticality "*Reject IE*" or "*Ignore IE and Notify Sender*" using the Error Indication procedure, the *Procedure ID* IE, the *Triggering Message* IE, *Procedure Criticality* IE, the *Transaction ID* IE, and the *Information Element Criticality Diagnostics* IE shall be included in the *Criticality Diagnostics* IE for each reported IE/IE group. In the *Information Element Criticality Diagnostics* IE the *Repetition Number* IE shall be

included and in addition, if the missing IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the *Message Structure* IE shall be included.

10.3.6   IEs or IE Groups Received in Wrong Order or With Too Many Occurrences or Erroneously Present

If a message with IEs or IE groups in wrong order or with too many occurrences is received or if IEs or IE groups with a conditional presence are present when the condition is not met (i.e. erroneously present), the receiving node shall behave according to the following:

- If a message *initiating* a procedure is received containing IEs or IE groups in wrong order or with too many occurrences or erroneously present, none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the cause value "Abstract Syntax Error (Falsely Constructed Message)" using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.

- If a message *initiating* a procedure that does not have a message to report unsuccessful outcome is received containing IEs or IE groups in wrong order or with too many occurrences or erroneously present, the receiving node shall terminate the procedure and initiate the Error Indication procedure, and use cause value "Abstract Syntax Error (Falsely Constructed Message)".

- If a *response* message is received containing IEs or IE groups in wrong order or with too many occurrences or erroneously present, the receiving node consider the procedure as unsuccessfully terminated and initiate local error handling.

When determining the correct order only the IEs specified in the specification version used by the receiver shall be considered.

10.4   Logical Error

Logical error situations occur when a message is comprehended correctly, but the information contained within the message is not valid (i.e. semantic error), or describes a procedure which is not compatible with the state of the receiver. In these conditions, the following behaviour shall be performed (unless otherwise specified) as defined by the class of the elementary procedure, irrespective of the criticality information of the IEs/IE groups containing the erroneous values.

Class 1:

Where the logical error occurs in a request message of a class 1 procedure, and the procedure has a message to report this unsuccessful outcome, this message shall be sent with an appropriate cause value. Typical cause values are:

Protocol Causes:

1. Semantic Error;

2. Message not Compatible with Receiver State.

Where the logical error is contained in a request message of a class 1 procedure, and the procedure does not have a message to report this unsuccessful outcome, the procedure shall be terminated and the Error Indication procedure shall be initiated with an appropriate cause value. The *Procedure ID* IE, the *Triggering Message* IE and the *Transaction ID* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

Where the logical error exists in a response message of a class 1 procedure, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

Class 2:

Where the logical error occurs in a message of a class 2 procedure, the procedure shall be terminated and the Error Indication procedure shall be initiated with an appropriate cause value. The *Procedure ID* IE, the *Triggering Message*

IE and the *Transaction ID* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

10.5   Exceptions

The error handling for all the cases described hereafter shall take precedence over any other error handling described in the other subclauses of clause 10.

- If any type of error (Transfer Syntax Error, Abstract Syntax Error or Logical Error) is detected in the ERROR INDICATION message, it shall not trigger the Error Indication procedure in the receiving Node but local error handling.

- In case a response message or ERROR INDICATION message needs to be returned, but the information necessary to determine the receiver of that message is missing, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

    If an error that terminates a procedure occurs, the returned cause value shall reflect the error that caused the termination of the procedure even if one or more abstract syntax errors with criticality "ignore and notify" have earlier occurred within the same procedure.

Annex A (normative):
Allocation and Pre-emption of Radio Links in the DRNS

A.1 Deriving Allocation Information for a Radio Link

A.1.1 Establishment of a New Radio Link

The Allocation Information for a Radio Link in the case of establishment of a new Radio Link shall be derived as follows:

- The latest received *Allocation/Retention Priority* IE for each transport channel shall be used.

- Note: The *Allocation/Retention Priority* IE for a transport channel may have been received in
  a) the procedure that establishes the first Radio Link for the UE in the DRNS or
  b) a procedure adding or modifying the transport channel.

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all transport channels that are intended to use the Radio Link is set to "no priority", the pre-emption capability of the Radio Link shall be set to "shall not trigger pre-emption".

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more of the transport channels that are intended to use the Radio Link is not set to "no priority", the allocation priority and the pre-emption capability of the Radio Link shall be set according to the following:

  - The transport channels that have the *Priority Level* IE in the *Allocation/Retention Priority* IE set to "no priority" shall be excluded when setting the allocation priority and pre-emption capability of a Radio Link.

  - The allocation priority for a Radio Link shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all non excluded transport channels that are intended to use the Radio Link.

  - If all non-excluded transport channels that are intended to use a Radio Link to be established have the pre-emption capability, given by the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE, set to "shall not trigger pre-emption", the pre-emption capability of the Radio Link shall be set to "shall not trigger pre-emption".
    If one or more non-excluded transport channels that are intended to use the Radio Link to be established have the value of the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE set to "may trigger pre-emption", the pre-emption capability of the Radio Link shall be set to "may trigger pre-emption".

The derived allocation priority and pre-emption capability are only valid during this allocation/retention process.

A.1.2 Modification of an Existing Radio Link

The Allocation Information for a Radio Link in the case of modification of a Radio Link (addition or modification of transport channels using the Radio Link) shall be derived as follows:

- The latest received *Allocation/Retention Priority* IE for each transport channel shall be used.

- Note: The *Allocation/Retention Priority* IE for a transport channel may have been received in
  a) the procedure that establishes the first Radio Link for the UE in the DRNS,
  b) a previous procedure adding or modifying the transport channel, or
  c) the current procedure adding or modifying the transport channel.

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all transport channels to be added or modified in the Radio Link is set to "no priority", the pre-emption capability of the Radio Link to be modified shall be set to "shall not trigger pre-emption".

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more of the transport channels to be added or modified in the Radio Link is not set to "no priority", the allocation priority of and the pre-emption capability of the Radio Link to be modified shall be set according to the following:

  - The transport channels to be added or modified that have the *Priority Level* IE in the *Allocation/Retention Priority* IE set to "no priority" shall be excluded when setting the allocation priority and pre-emption capability of a Radio Link to be modified.

  - The allocation priority for a Radio Link to be modified shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all the non-excluded transport channels that are to be added or modified.

  - If all non-excluded transport channels that are to be added or modified in the Radio Link have the pre-emption capability, given by the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE, set to "shall not trigger pre-emption", the pre-emption capability of the Radio Link to be modified shall be set to "shall not trigger pre-emption".
  If one or more of the non-excluded transport channels to be added or modified in the Radio Link have the value of the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE set to "may trigger pre-emption", the pre-emption capability of the Radio Link to be modified shall be set to "may trigger pre-emption".

The derived allocation priority and pre-emption capability are only valid during this allocation/retention process.

A.2 Deriving Retention Information for a Radio Link

The Retention Information for an existing Radio Link shall be derived as follows:

- The latest received *Allocation/Retention Priority* IE for each transport channel shall be used.

  Note: The *Allocation/Retention Priority* IE for a transport channel may have been received in
  a) the procedure that establishes the first Radio Link for the UE in the DRNS or
  b) a procedure adding or modifying the transport channel.

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more transport channels using the Radio Link is set to "no priority", the pre-emption vulnerability of the Radio Link shall be set to "not pre-emptable".

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all the transport channels using the Radio Link is not set to "no priority", the retention priority of the Radio Link and the pre-emption vulnerability of the Radio Link shall be set according to the following:

  - The retention priority for a Radio Link shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all transport channels that uses the Radio Link.

  - If all transport channels that uses the Radio Link have the pre-emption vulnerability, given by the *Pre-emption Vulnerability* IE in the *Allocation/Retention Priority* IE, set to "pre-emptable", the pre-emption vulnerability of the Radio Link shall be set to "pre-emptable".
  If one or more transport channels that uses the Radio Link have the value of the *Pre-emption Vulnerability* IE in the *Allocation/Retention Priority* IE set to "not pre-emptable", the pre-emption vulnerability of the Radio Link shall be set to "not pre-emptable".

The derived retention priority and pre-emption vulnerability are valid until they are changed, or until the Radio Link is deleted. When new transport channels are added to or deleted from the Radio Link or when existing transport channels are modified with regards to the *Allocation/Retention Priority* IE, the retention information shall be derived again according to above.

A.3 The Allocation/Retention Process

The DRNS shall establish or modify the resources for a Radio Link according to:

- The value of the Allocation Information (allocation priority and pre-emption capability) of the Radio to be established or modified. The Allocation Information is derived according to clause A.1.

- The value of the Retention Information (retention priority and pre-emption vulnerability) of existing Radio Links. The Retention Information derived according to clause A.2.

- The resource situation in the DRNS.

Whilst the process and the extent of the pre-emption functionality is operator dependent, the pre-emption indicators (pre-emption capability and pre-emption vulnerability) shall be treated as follows:

- -. If the pre-emption capability for a Radio Link to be established or modified is set to "may trigger pre-emption" and the resource situation so requires, the DRNS may trigger the pre-emption process in clause A.4 to free resources for this allocation request.

- -. If the pre-emption capability for a Radio Link to be established or modified is set to "shall not trigger pre-emption", then this allocation request shall not trigger the pre-emption process in clause A.4.

- -. If the pre-emption vulnerability for an existing Radio Link is set to "pre-emptable", then this Radio Link shall be included in the pre-emption process in clause A.4.

- -. If the pre-emption vulnerability for an existing Radio Link is set to "not pre-emptable", then this Radio Link shall not be included in the pre-emption process in clause A.4.

A.4　　The Pre-emption Process

The pre-emption process shall only pre-empt Radio Links with lower retention priority than the allocation priority of the Radio Link to be established or modified. The Radio Links to be pre-empted shall be selected in ascending order of the retention priority.

When the pre-emption process detects that one or more Radio Links have to be pre-empted to free resources for a Radio Link(s) to be established or modified, the DRNS shall initiate the Radio Link Pre-emption procedure for all the UE Contexts having Radio Links selected for pre-emption and start the $T_{Preempt}$ timer.

When enough resources are freed to establish or modify the Radio Link(s) according to the request, the DRNS shall stop the $T_{Preempt}$ timer and complete the procedure that triggered the pre-emption process in accordance with the "Successful Operation" subclause of the procedure.

If the $T_{Preempt}$ timer expires, the DRNS shall reject the procedure that triggered the pre-emption process and complete the procedure in accordance with the "Unsuccessful Operation" subclause of the procedure.

Annex B (informative): Measurement Reporting

When the *Report Characteristics* IE is set to "Event A" (figure B.1), the Measurement Reporting procedure is initiated when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the value zero shall be used for the hysteresis time.
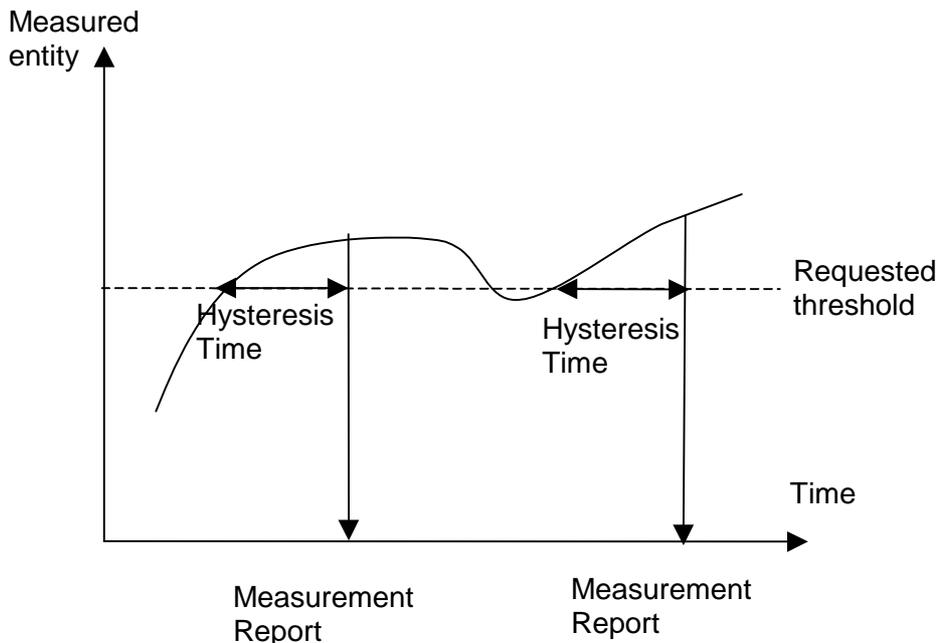

Figure B.1: Event A reporting with Hysteresis Time specified

When the *Report Characteristics* IE is set to "Event B" (figure B.2), the Measurement Reporting procedure is initiated when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the value zero shall be used for the hysteresis time.
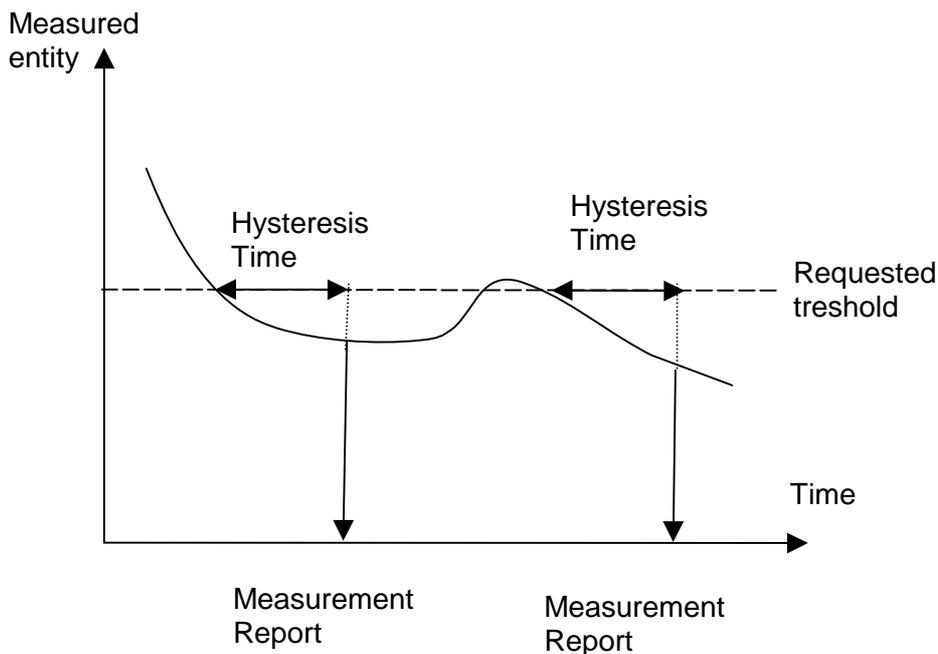
Figure B.2: Event B reporting with Hysteresis Time specified

When the *Report Characteristics* IE is set to "Event C" (figure B.3), the Measurement Reporting procedure is initiated always when the measured entity rises by an amount greater than the requested threshold within the requested time. The reporting in figure B.3 is initiated if the Rising Time T1 is less than the requested time.
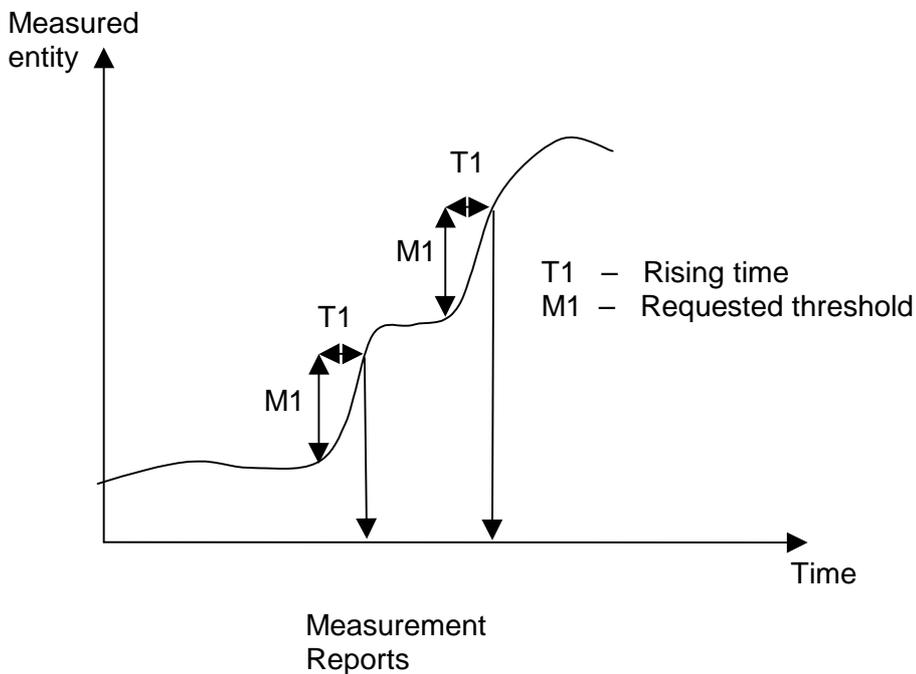

Figure B.3: Event C reporting

When the *Report Characteristics* IE is set to "Event D" (figure B.4), the Measurement Reporting procedure is initiated always when the measured entity falls by an amount greater than the requested threshold within the requested time. The reporting in figureB.4 is initiated if the Falling Time T1 is less than the requested time.
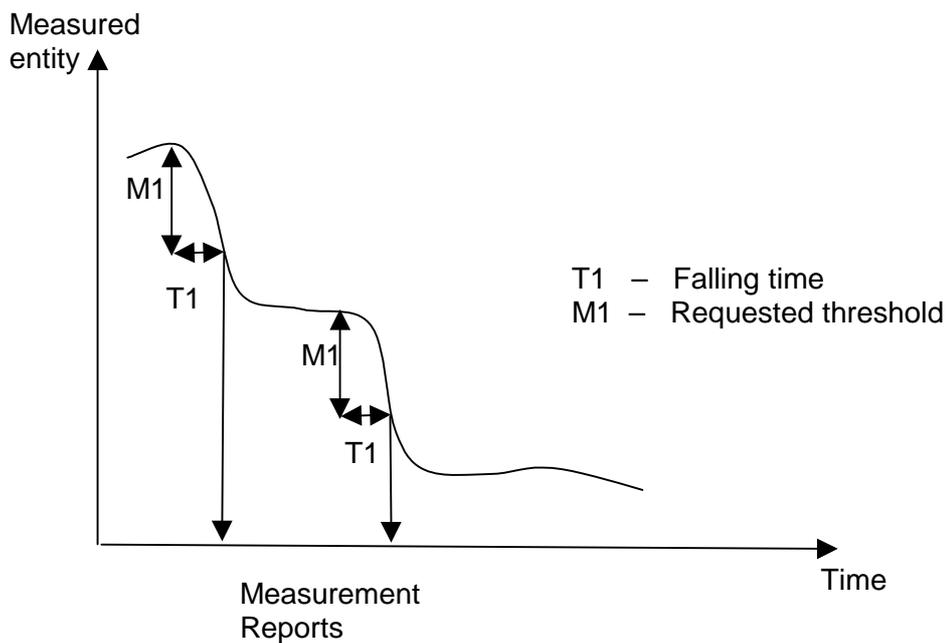
Figure B.4: Event D reporting

When the *Report Characteristics* IE is set to "Event E" (figure B.5), the Measurement Reporting procedure (Report A) is initiated always when the measured entity rises above the "Measurement Threshold 1" and stays there for the "Measurement Hysteresis Time" (T1 in figure B.5). If *Report Periodicity* IE is provided DRNS shall also initiate Measurement Reporting procedure periodically. The periodic reporting continues although the measured entity falls below the "Measurement Threshold 1" and is terminated by the Report B.

When the Report A conditions have been met and the measured entity falls below the "Measurement Threshold 2" and stays there for the "Measurement Hysteresis Time" (T1) the Measurement Reporting procedure (Report B) is initiated and the periodic reporting is terminated.
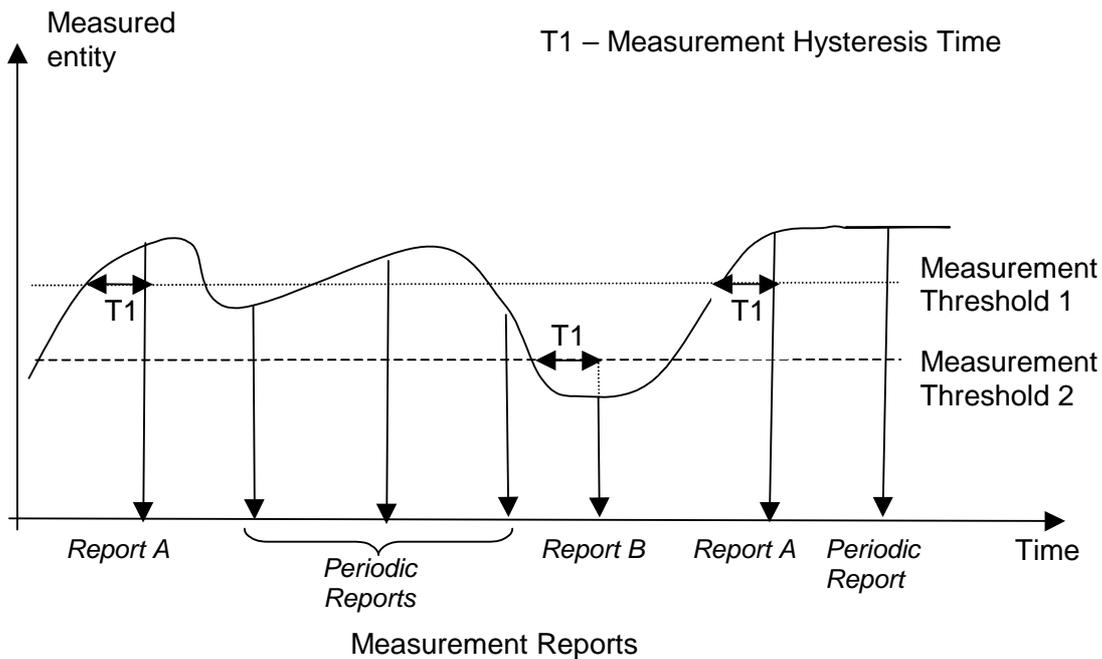
Figure B.5: Event E reporting with Hysteresis Time specified and Periodic Reporting requested

When the *Report Characteristics* IE is set to "Event F" (figure B.6), the Measurement Reporting procedure (Report A) is initiated always when the measured entity falls below the "Measurement Threshold 1" and stays there for the "Measurement Hysteresis Time" (T1 in figure B.6). If *Report Periodicity* IE is provided DRNS shall also initiate Measurement Reporting procedure periodically. The periodic reporting continues although the measured entity rises above the "Measurement Threshold 1" and is terminated by the Report B.

When the Report A conditions have been met and the measured entity rises above the "Measurement Threshold 2" and stays there for the "Measurement Hysteresis Time" (T1) Measurement Reporting procedure (Report B) is initiated and the periodic reporting is terminated.

Measured
entity

T1 – Measurement Hysteresis Time

Measurement
Threshold 2

Measurement
Threshold 1

Time

Report A

*Periodic
Reports*

Report B

Report A

*Periodic
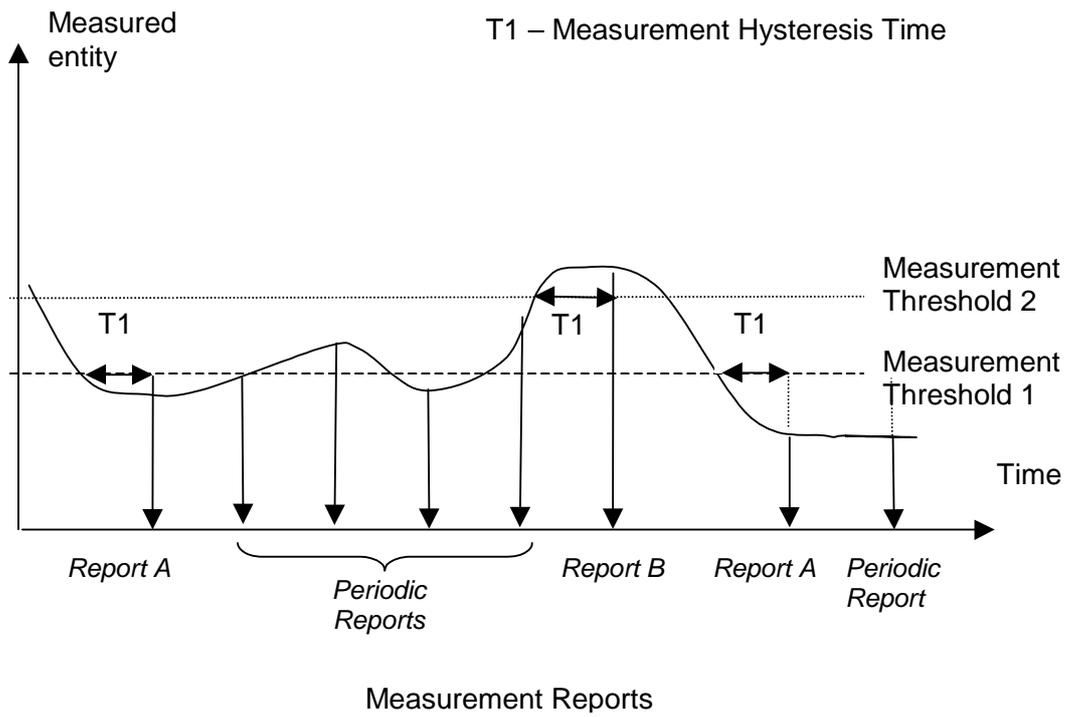Report*

Measurement Reports

Figure B.6: Event F reporting with Hysteresis Time specified and Periodic Reporting requested

Annex C (informative):
Guidelines for Usage of the Criticality Diagnostics IE

C.1   EXAMPLE MESSAGE Layout

Assume the following message format:

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
A	M				YES	reject
B	M				YES	reject
>E		*1..<maxE>*			EACH	ignore
>>F		*1..<maxF>*			-	
>>>G		*0..3, ...*			EACH	ignore
>>H		*1..<maxH>*			EACH	ignore
>>>G		*0..3, ...*			EACH	ignore and notify
>>G	M				YES	reject
>>J		*1..<maxJ>*			-	
>>>G		*0..3, ...*			EACH	reject
C	M				YES	reject
>K		*1..<maxK>*			EACH	ignore and notify
>>L		*1..<maxL>*			-	
>>>M	O				-	
D	M				YES	reject

Note 1.   The IEs F, J, and L do not have assigned criticality. The IEs F, J, and L are consequently realised as the ASN.1 type SEQUENCE OF of "ordinary" ASN.1 type, e.g. INTEGER. On the other hand, the repeatable IEs with assigned criticality are realised as the ASN.1 type SEQUENCE OF of an IE object, e.g. ProtocolIE-Single-Container.

For the corresponding ASN.1 layout, see subclause C.4.

C.2 Example on a Received EXAMPLE MESSAGE

Assume further more that a received message based on the above tabular format is according to the figure below.
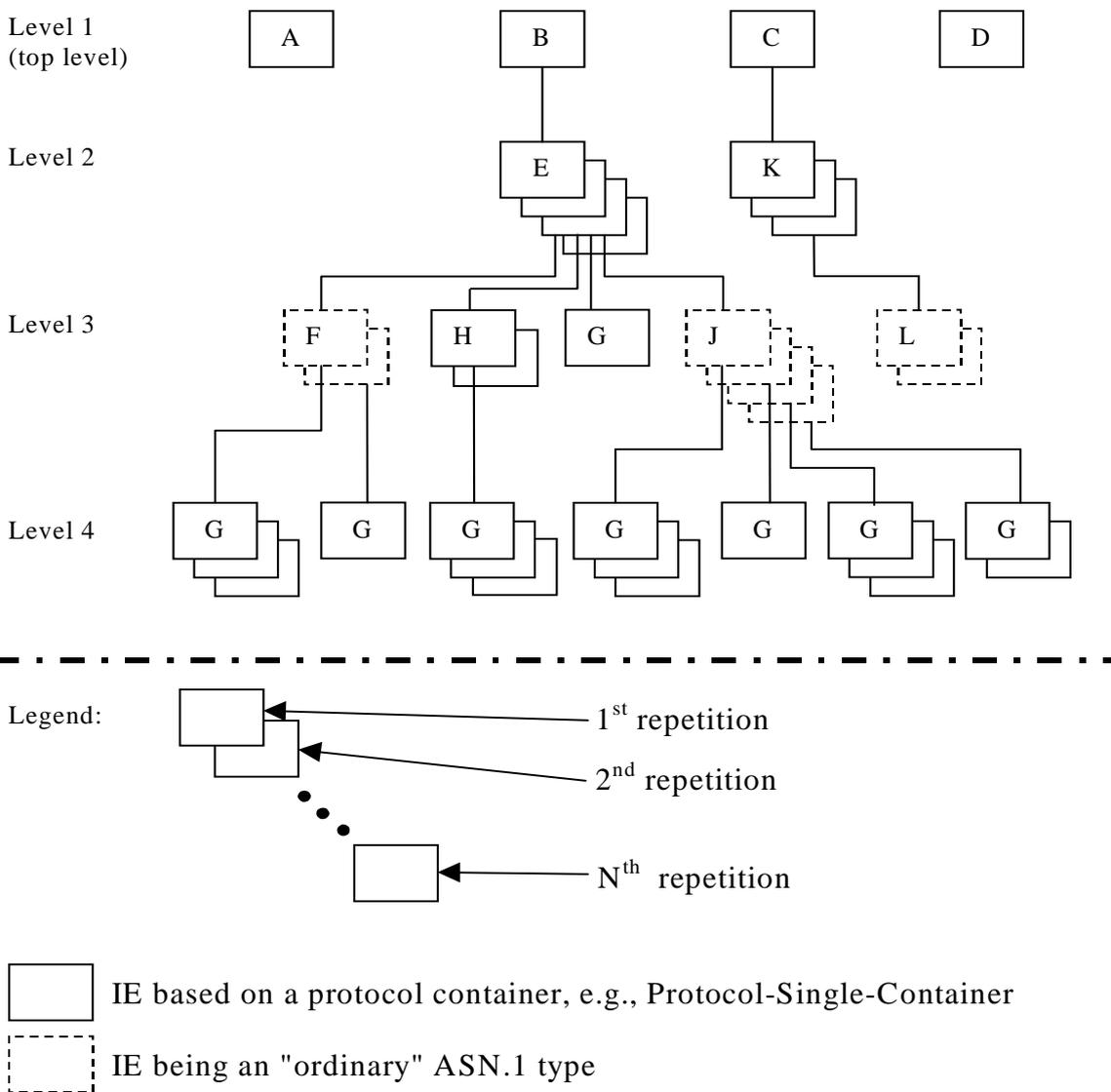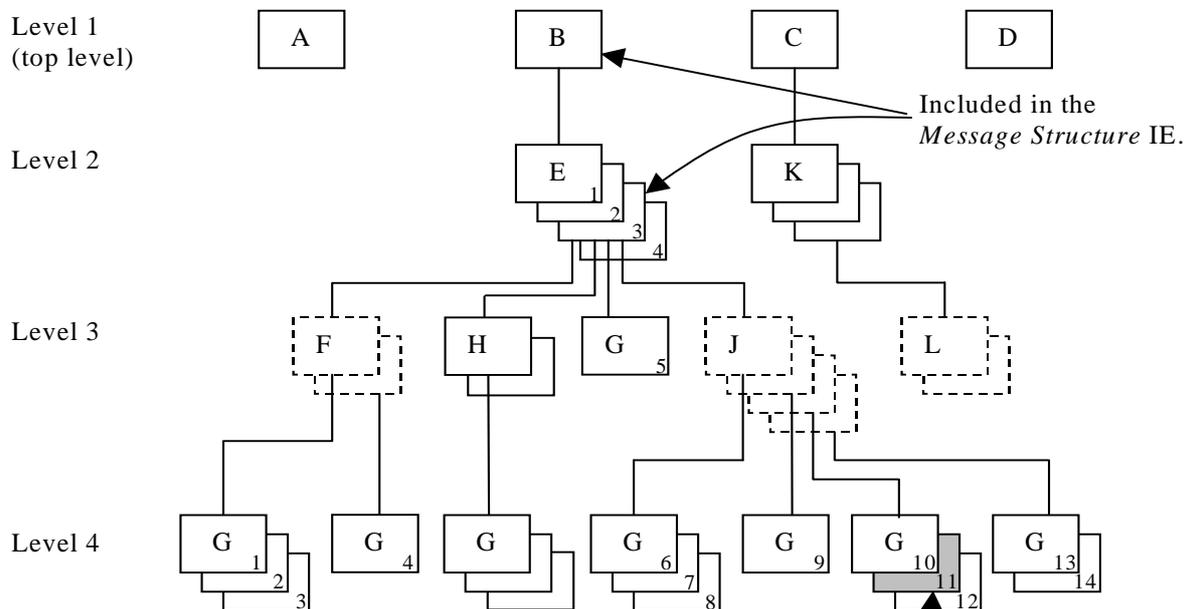

Figure C.1: Example of content of a received RNSAP message based on the EXAMPLE MESSAGE

C.3 Content of Criticality Diagnostics

C.3.1 Example 1

Included in the *Information Element Criticality Diagnostics* IE:
a) *IE ID* IE
b) *Repetition Number* IE

Figure C.2: Example of a received RNSAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE J shown in the figure C.2 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 4.
IE ID	id-G	IE ID from the reported level, i.e. level 4.
Repetition Number	11	Repetition number on the reported level, i.e. level 4. (Since the IE E (level 2) is the lowest level included in the *Message Structure* IE this is the eleventh occurrence of IE G within the IE E (level 2).
Type of Error	not underst ood	
Message Structure, *first repetition*		
>IE ID	id-B	IE ID from level 1.
Message Structure, *second repetition*		
>IE ID	id-E	IE ID from the lowest level above the reported level, i.e. level 2.
>Repetition Number	3	Repetition number from the lowest level above the reported level, i.e. level 2.

Note 2. The IE J on level 3 cannot be included in the *Message Structure* IE since they have no criticality of their own.

Note 3. The repetition number of the reported IE indicates the number of repetitions of IE G received up to the detected erroneous repetition, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

C.3.2   Example 2

Included in the *Information Element Criticality Diagnostics* IE:
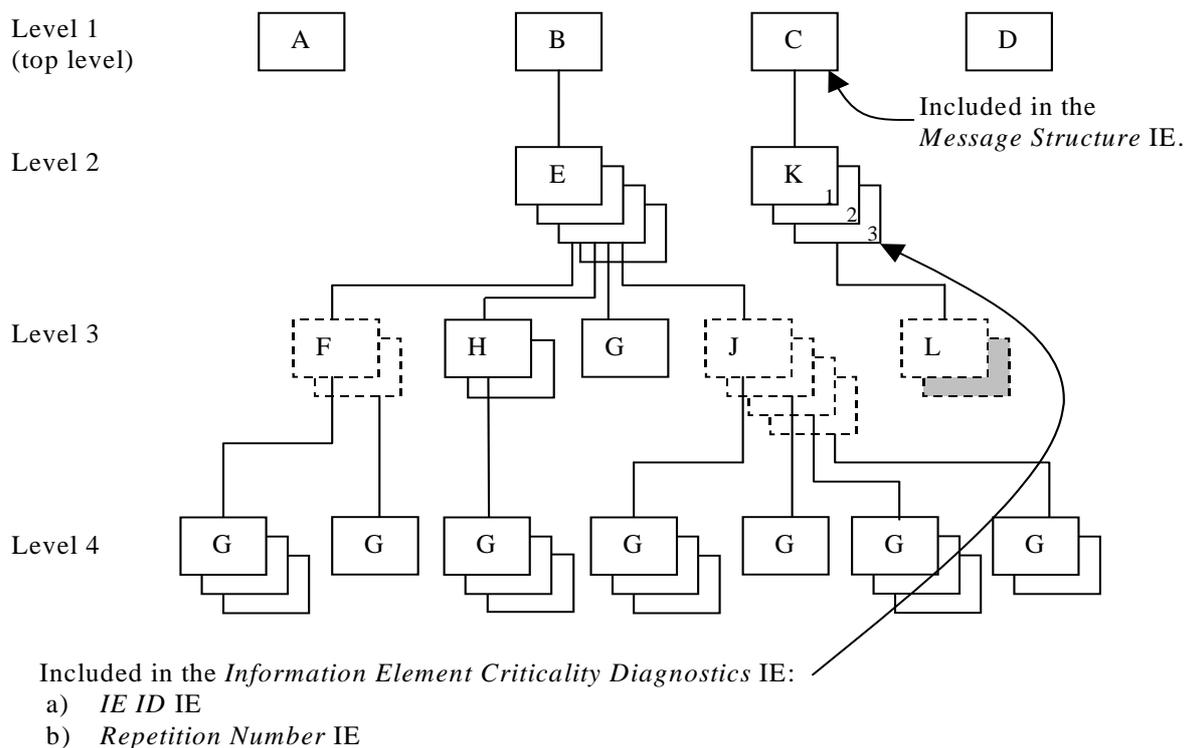a)   *IE ID* IE
b)   *Repetition Number* IE

Figure C.3: Example of a received RNSAP message containing a not comprehended IE

If there is an error within the second instance (marked as grey) in the sequence (IE L in the tabular format) on level 3 below IE K in the structure shown in the figure C.3 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	ignore and notify	Criticality for IE on the reported level, i.e. level 2.
IE ID	id-K	IE ID from the reported level, i.e. level 2.
Repetition Number	3	Repetition number on the reported level, i.e. level 2.
Type of Error	not understood	
Message Structure, *first repetition*		
>IE ID	id-C	IE ID from the lowest level above the reported level, i.e. level 1.

Note 4.   The IE L on level 3 cannot be reported individually included in the *Message Structure* IE since it has no criticality of its own.

C.3.3 Example 3

Included in the *Information Element Criticality Diagnostics* IE:
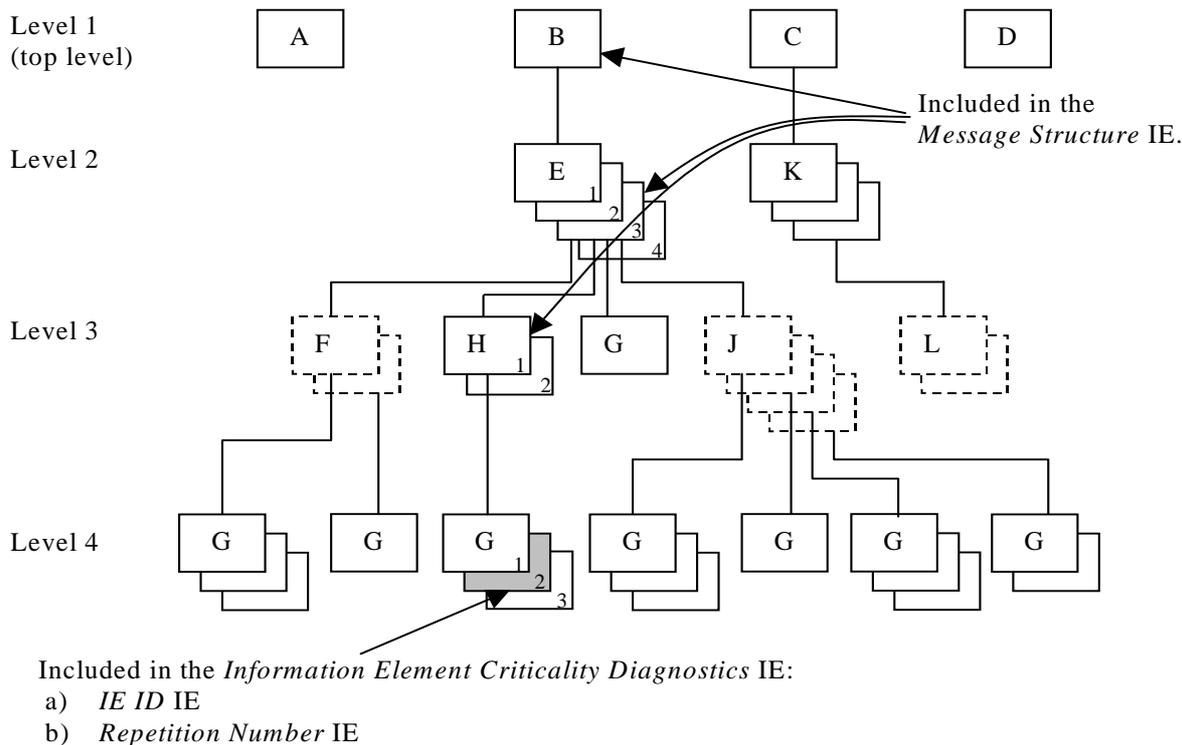a) *IE ID* IE
b) *Repetition Number* IE

Figure C.4: Example of a received RNSAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE H shown in the figure C.4 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	ignore and notify	Criticality for IE on the reported level, i.e. level 4.
IE ID	id-G	IE ID from the reported level, i.e. level 4.
Repetition Number	2	Repetition number on the reported level, i.e. level 4.
Type of Error	not understood	
Message Structure, *first repetition*		
>IE ID	id-B	IE ID from level 1.
Message Structure, *second repetition*		
>IE ID	id-E	IE ID from level 2.
>Repetition Number	3	Repetition number from level 2.
Message Structure, *third repetition*		
>IE ID	id-H	IE ID from the lowest level above the reported level, i.e. level 3.

IE name	Value	Comment
>Repetition Number	1	Repetition number from the lowest level above the reported level, i.e. level 3.

Note 5.   The repetition number of level 4 indicates the number of repetitions of IE G received up to the detected erroneous repetition, counted below the same instance of the previous level with assigned criticality (instance 1 of IE H on level 3).

C.3.4 Example 4

Included in the *Information Element Criticality Diagnostics* IE:
a) *IE ID* IE
b) *Repetition Number* IE

Figure C.5: Example of a received RNSAP message containing a not comprehended IE
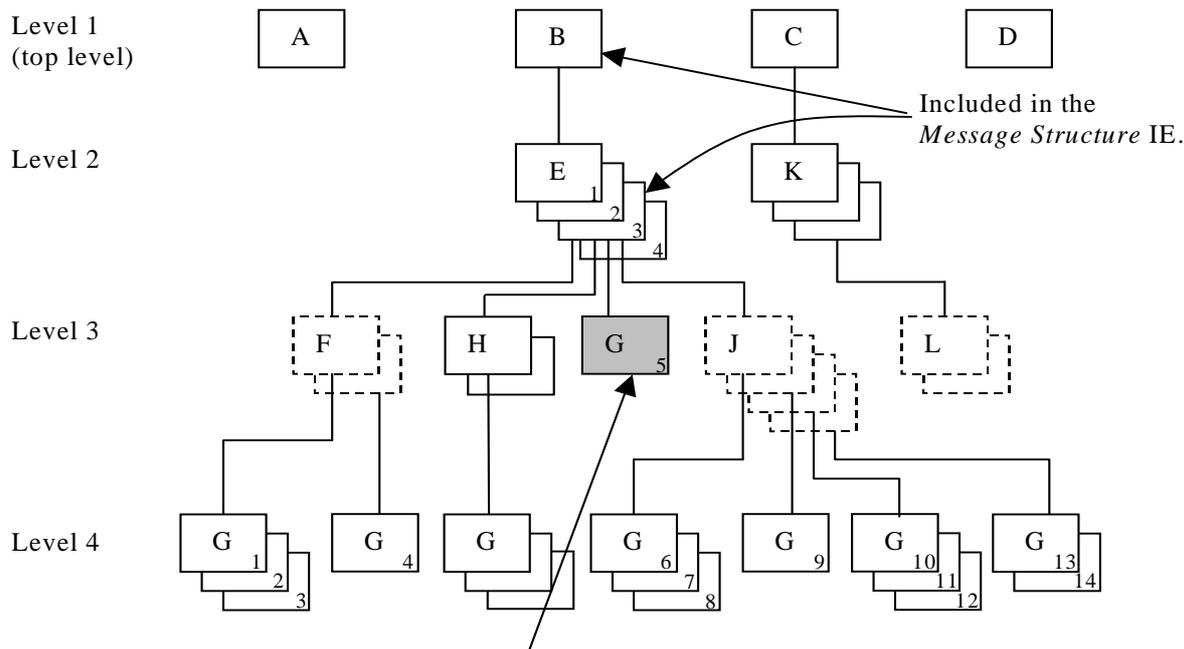
If there is an error within the instance marked as grey in the IE G in the IE E shown in the figure C.5 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 3.
IE ID	id-G	IE ID from the reported level, i.e. level 3.
Repetition Number	5	Repetition number on the reported level, i.e. level 3. (Since the IE E (level 2) is the lowest level included in the *Message Structure* IE this is the fifth occurrence of IE G within the IE E (level 2).
Type of Error	not underst ood	
Message Structure, *first repetition*		
>IE ID	id-B	IE ID from level 1.
Message Structure, *second repetition*		
>IE ID	id-E	IE ID from the lowest level above the reported level, i.e. level 2.
>Repetition Number	3	Repetition number from the lowest level above the reported level, i.e. level 2.

Note 6. The repetition number of the reported IE indicates the number of repetitions of IE G received up to the detected erroneous repetition, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

C.3.5 Example 5

Level 1 (top level) A   B   C   D

Included in the *Message Structure* IE.

Level 2   E   1 2 3 4   K

Level 3   F   H   G   J   L

Level 4   G 1 2 3   G 4   G   G 5 6 7   G 8   G 9 10 11   G 12 13

Included in the *Information Element Criticality Diagnostics* IE:
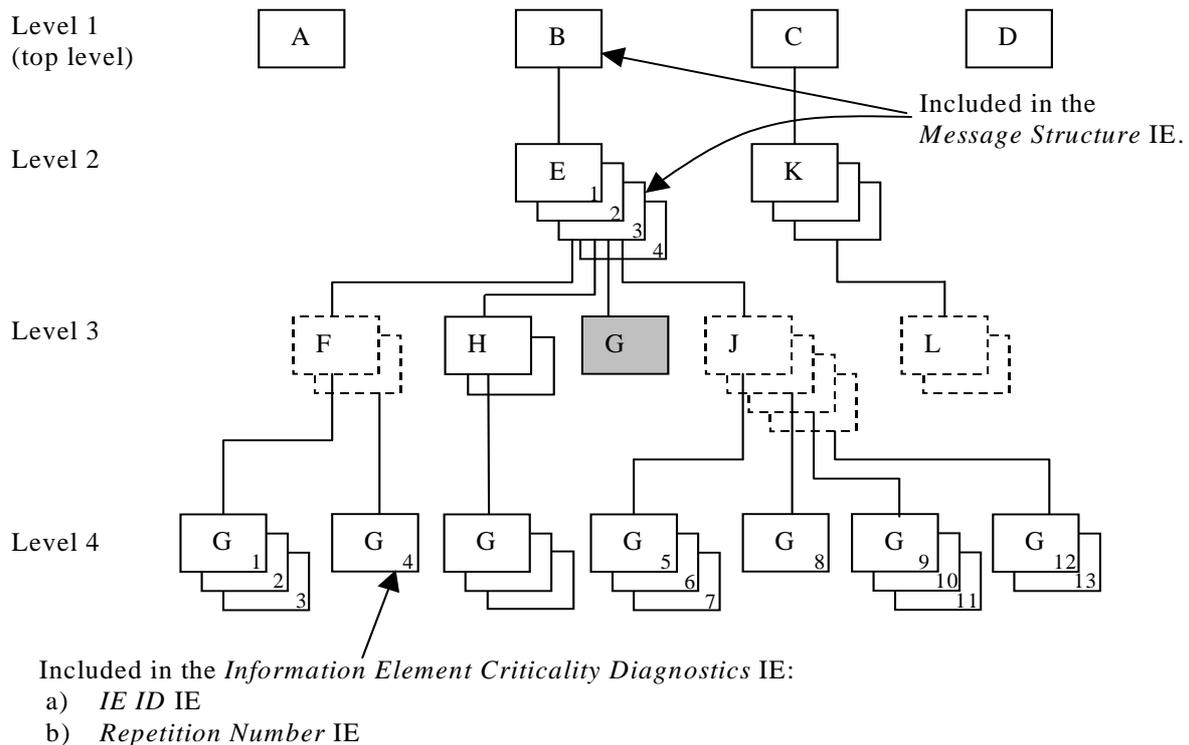a) *IE ID* IE
b) *Repetition Number* IE

Figure C.6: Example of a received RNSAP message with a missing IE

If the instance marked as grey in the IE G in the IE E shown in the figure C.6 above, is missing this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 3.
IE ID	id-G	IE ID from the reported level, i.e. level 3.
Repetition Number	4	Repetition number up to the missing IE on the reported level, i.e. level 3. (Since the IE E (level 2) is the lowest level included in the *Message Structure* IE there have been four occurrences of IE G within the IE E (level 2) up to the missing occurrence.
Type of Error	missing	
Message Structure, *first repetition*		
>IE ID	id-B	IE ID from level 1.
Message Structure, *second repetition*		
>IE ID	id-E	IE ID from the lowest level above the reported level, i.e. level 2.
>Repetition Number	3	Repetition number from the lowest level above the reported level, i.e. level 2.

Note 7. The repetition number of the reported IE indicates the number of repetitions of IE G received up to but not including the missing occurrence, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

C.4 ASN.1 of EXAMPLE MESSAGE

```
ExampleMessage ::= SEQUENCE {
    ProtocolIEs         ProtocolIE-Container      {{ExampleMessage-IEs}},
    ProtocolExtensions ProtocolExtensionContainer {{ExampleMessage-Extensions}}   OPTIONAL,
    ...
}

ExampleMessage-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-A   CRITICALITY reject  TYPE A  PRESENCE mandatory} |
    { ID id-B   CRITICALITY reject  TYPE B  PRESENCE mandatory} |
    { ID id-C   CRITICALITY reject  TYPE C  PRESENCE mandatory} |
    { ID id-D   CRITICALITY reject  TYPE D  PRESENCE mandatory} ,
    ...
}

B ::= SEQUENCE {
    e               E-List,
    iE-Extensions   ProtocolExtensionContainer { {B-ExtIEs} }   OPTIONAL,
    ...
}

B-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-List ::= SEQUENCE (SIZE (1..maxE)) OF ProtocolIE-Single-Container { {E-IEs} }

E-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-E   CRITICALITY ignore  TYPE E  PRESENCE mandatory  }
}

E ::= SEQUENCE {
    f               F-List,
    h               H-List,
    g               G-List1,
    j               J-List,
    iE-Extensions   ProtocolExtensionContainer { {E-ExtIEs} }   OPTIONAL,
    ...
}

E-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

F-List ::= SEQUENCE (SIZE (1..maxF)) OF F

F ::= SEQUENCE {
    g               G-List2 OPTIONAL,
    iE-Extensions   ProtocolExtensionContainer { {F-ExtIEs} }   OPTIONAL,
    ...
}

F-ExtIEs    RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

G-List2 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { {G2-IEs} }

G2-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-G   CRITICALITY ignore  TYPE G  PRESENCE mandatory  }
}

H-List ::= SEQUENCE (SIZE (1..maxH)) OF ProtocolIE-Single-Container { {H-IEs} }

H-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-H   CRITICALITY ignore  TYPE H  PRESENCE mandatory  }
}

H ::= SEQUENCE {
    g               G-List3 OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {H-ExtIEs} } OPTIONAL,
    ...
}

H-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

G-List3 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { {G3-IEs} }

G3-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-G   CRITICALITY notify  TYPE G  PRESENCE mandatory  }
}

G-List1 ::= ProtocolIE-Single-Container { {G1-IEs} }

G1-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-G   CRITICALITY reject  TYPE G  PRESENCE mandatory  }
}

J-List ::= SEQUENCE (SIZE (1..maxJ)) OF J

J ::= SEQUENCE {
    g               G-List4 OPTIONAL,
    iE-Extensions   ProtocolExtensionContainer { {J-ExtIEs} }   OPTIONAL,
    ...
}

J-ExtIEs    RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

G-List4 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { {G4-IEs} }

G4-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-G   CRITICALITY reject  TYPE G  PRESENCE mandatory  }
}

C ::= SEQUENCE {
    k               K-List,
    iE-Extensions   ProtocolExtensionContainer { {C-ExtIEs} }   OPTIONAL,
    ...
}

C-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

K-List ::= SEQUENCE (SIZE (1..maxK)) OF ProtocolIE-Single-Container { {K-IEs} }

K-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-K   CRITICALITY notify  TYPE K  PRESENCE mandatory  }
}

K ::= SEQUENCE {
    l               L-List,
    iE-Extensions   ProtocolExtensionContainer { {K-ExtIEs} }   OPTIONAL,
    ...
}

K-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

L-List ::= SEQUENCE (SIZE (1..maxL)) OF L

L ::= SEQUENCE {
    m               M  OPTIONAL,
    iE-Extensions   ProtocolExtensionContainer { {L-ExtIEs} }   OPTIONAL,
    ...
}

L-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

ExampleMessage-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

ETSI

Annex D (normative):
DRNS Behaviour at SRNC or RNSAP Signalling Bearer Failure

This annex describes the DRNC actions in the event of SRNC or RNSAP Signalling Bearer failure when all or some of the UE Contexts related to the SRNC need to be removed in DRNC.

D.1 Detection of SRNC or RNSAP Signalling Bearer/Connection Failure

Termination of all or some of the UE Contexts in DRNC which are related to an SRNC may be triggered due to failure of SRNC, RNSAP Signalling Bearer or the Iur signalling connection of an UE(s).

D.1.1 Termination of all UE Contexts Related to a Specific SRNC

Termination of all UE Contexts in DRNC which are related to a specific SRNC is triggered if the RNSAP Signalling Bearer failure is detected by the RNSAP according to the procedure described in the sub-clause 4.5.1.5.1 of TS 25.420. By "all" UE Contexts, it means all UEs having dedicated and/or common channel resources.

D.1.2 Termination of Specific UE Context

Termination of a specific UE Context in DRNC is triggered for an UE which has dedicated transport channel resources according to the procedure described in the sub-clause 4.5.1.5.2 of TS 25.420.

D.2 DRNC Actions at UE Context Termination

When termination of the UE Context is required, the DRNC shall remove any common and/or dedicated radio resources related to the UE Context. The DRNC shall also initiate release of the dedicated or common user plane resources that were involved in these UE contexts. In addition, if it is possible the DRNC shall release the RRC connection.

Annex E (informative): Change History

TSG #	TSG Doc.	CR	Rev	Subject/Comment	New
03/2006	-	-	-	Release 7 version created based on v6.8.0	7.0.0
31	RP-060070	1127	1	Introduction of the PLCCH	7.0.0
31	RP-060073	1128	1	Introduction of 7.68Mcps TDD option	7.0.0
32	RP-060279	1159	2	CR to 25.423[Rel-7] on correction for DL DPCH Power Information	7.1.0
32	RP-060280	1162	2	CR cross-dependencies for E-DCH Reference Power Offset by RL ADDITION	7.1.0
32	RP-060280	1166	1	Corrections to E-DCH Uplink Combination in RL SETUP and RL ADDITION	7.1.0
32	RP-060281	1170	1	Correction of the common related information for E-HICH and E-RGCH	7.1.0
32	RP-060281	1172		E-RGCH/E-HICH Power Offset value range	7.1.0
32	RP-060279	1176		Corrections to Combined RL Additoin with HS-DSCH /E-DCH Serving change	7.1.0
32	RP-060290	1177	2	Release 7 Timing Advance (3.84 Mpcs and 7.68 Mcps TDD)	7.1.0
32	RP-060291	1178		Addition of HS-DSCH information in radio link addition procedure for 7.68 Mcps TDD	7.1.0
32	RP-060280	1180	2	E-DCH and HS-DSCH same serving cell	7.1.0
32	RP-060280	1182	1	HS-DSCH Configured Indicator for Radio Link Addition	7.1.0
32	RP-060281	1184	1	E-RNTI allocation on serving change	7.1.0
32	RP-060407	1187	2	Introduction of TNL QoS IE for shared channels	7.1.0
32	RP-060284	1189		RNL cause "E-DCH not supported" missing in the ASN.1	7.1.0
32	RP-060431	1192	2	Power Offset for E-DCH control-only transmissions	7.1.0
32	RP-060281	1196	1	Abnormal condition for HS-DSCH Configured Indicator IE	7.1.0
33	RP-060501	1203	1	Correction on the value range of E-DCH IEs	7.2.0
33	RP-060503	1205	1	Presence of "E-DCH FDD Information Response" IE	7.2.0
33	RP-060501	1207	1	E-AGCH and E-RGCH/E-HICH FDD scrambling code in response messages	7.2.0
33	RP-060500	1209	1	DCH combined when EDCH operation	7.2.0
33	RP-060503	1211		Correction of maxNrOfMACdFlows for EDCH in ASN.1	7.2.0
33	RP-060503	1213		Use of the RL Specific E-DCH Information IE for E-DCH modification	7.2.0
33	RP-060500	1215	1	Optional usage of the E-DCH Reference Power Offset IE	7.2.0
33	RP-060504	1217	1	MAC-HS reset Indicator alignment for the Radio Link Addition Response	7.2.0
33	RP-060511	1219	1	Introduction of 3.84 Mcps and 7.68Mcps TDD Enhanced Uplink	7.2.0
33	RP-060503	1221	1	E-DCH not optional in RNSAP message RL SETUP RESPONSE	7.2.0
33	RP-060509	1222	3	Extended WCDMA Cell Range	7.2.0
33	RP-060514	1223	1	Ignore Traffic Class if HS-DSCH or E-DCH MAC-d flow user is SRB (RRC)	7.2.0
33	RP-060500	1229		Further Abnormal Conditions for E-DCH	7.2.0
33	RP-060504	1232	1	Correction for RL Reconfiguration	7.2.0
33	RP-060504	1234	1	Correction on the value range of E-DCH Ies	7.2.0

33	RP-060502	1238		Introduction of new indicator for non DCH operation	7.2.0
33	RP-060479	1239		Correction to coding of PLCCH for 1.28Mcps TDD	7.2.0
34	RP-060698	1241	2	Enhancing RNSAP specification to support Mobile TV	7.3.0
34	RP-060699	1243	2	Correction for Misalignment between Tabular and ASN.1 for "E-RGCH and E-HICH Channelisation Code" IE	7.3.0
34	RP-060777	1245	3	Correction for Misalignment between Tabular and ASN.1 for "E-DCH Minimum Set E-TFCI " IE	7.3.0
34	RP-060700	1247	1	Correction for the max reptition of RL Information Response IE in tabular	7.3.0
34	RP-060700	1253		Correction to an abnormal case in E-DCH RL ADDITION	7.3.0
34	RP-060709	1256	2	Fast Reconfiguration	7.3.0
34	RP-060705	1257	1	Correction of Round Trip Time for Extended Cell Range	7.3.0
34	RP-060707	1259	1	RL Setup Procedure Combined with HSPA Serving Cell Change	7.3.0
35	RP-070057	1258	2	Introduction of Continuous Packet Connectivity in RNSAP	7.4.0
35	RP-070057	1260	1	HS-PDSCH code change for CPC mode	7.4.0
35	RP-070053	1263	1	Abnormal conditions for IP Transport Option and Diversity Control field	7.4.0
35	RP-070056	1265	1	Correction of the Maximum number of logical channel ID	7.4.0
35	RP-070061	1267	1	Introduction of MIMO in RNSAP	7.4.0
35	RP-070063	1268	2	Presence of Guaranteed Bit Rate	7.4.0
35	RP-070129	1269	2	Introduction of 1.28 Mcps TDD Enhanced Uplink	7.4.0
35	RP-070067	1270	1	Introduction of Downlink Higher Order Modulation in RNSAP	7.4.0
35	RP-070053	1275		Correction of the procedure code ID	7.4.0
36	RP-070332	1266	3	Support of higher bitrates and Flexible RLC PDU size on HS-DSCH	7.5.0
36	RP-070331	1271	3	Introduction of Uplink Higher Order Modulation in RNSAP	7.5.0
36	RP-070474	1272	5	Introduction of Extended RNC-ID	7.5.0
36	RP-070328	1273	5	Introduction of Enhanced Cell_FACH state feature	7.5.0
36	RP-070338	1276	1	Support of F-DPCH Enhancement	7.5.0
36	RP-070322	1277		Introducing a new value E-DCH TTI2ms not supported in the Cause IE	7.5.0
36	RP-070327	1282		Added a missing value MIMO not supported in the Cause IE	7.5.0
36	RP-070320	1287		Correction of wrong description for E-DCH HARQ process allocation for 2ms TT	7.5.0
36	RP-070339	1288	1	Abnormal condition for Unidirection DCH Indicator	7.5.0
36	RP-070326	1290		Alignment of UE DTX long preamble IE in RNSAP/NBAP with RRC	7.5.0
36	RP-070327	1291		Introduction of missing cause values for MIMO	7.5.0
36	RP-070326	1292	1	Introduction of missing cause values for CPC	7.5.0
36	RP-070394	1293		Correction to definition of Power Resource Related Information (TDD only)	7.5.0
36	RP-070339	1294		Inconsistencies between tabular description and ASN.1 definition with regard to the use of the TNL QoS, Traffic Class and BLER IEs	7.5.0
36	RP-070337	1295	2	Introduction of GANSS (Galileo and Additional Navigation Systems) in RNSAP	7.5.0
36	RP-070340	1296	1	Max UE DTX Cycle Signaling Support for CPC operation	7.5.0
36	RP-070324	1297		Some minor corrections for 1.28 Mcps TDD E-DCH	7.5.0

36	RP-070324	1298		Modification on the non-scheduled transmission for 1.28 Mcps TDD E-DCH	7.5.0
37	RP-070566	1300	1	Correction of Power offset for E-HICH, E-AGCH, E-RGCH and HS-SCCH when F-DPCH is configured	7.6.0
37	RP-070565	1302	1	PO2 for F-DPCH	7.6.0
37	RP-070571	1303		Extension of the ranges of the MAC-hs / MAC-es Guaranteed Bit Rate IEs	7.6.0
37	RP-070572	1304	1	Extension of the range of the "Reference E-TFCI Power Offset" for UL 16QAM	7.6.0
37	RP-070572	1305	1	Extension of the ranges of the "Maximum Number of Bits per MAC-e PDU for Non-scheduled transmission" and "E-DCH Maximum Bitrate" for UL 16QAM	7.6.0
37	RP-070630	1306	2	HARQ Memory Partitioning for MIMO	7.6.0
37	RP-070579	1308		Cause value "F-DPCH Slot Format operation not supported"	7.6.0
37	RP-070571	1311		64QAM DL support Indicator	7.6.0
37	RP-070575	1312		Max UE DTX Cycle Signaling Support for CPC operation	7.6.0
37	RP-070650	1313	2	Introduction of multi-frequency for 1.28Mcps TDD in 25.423	7.6.0
37	RP-070571	1314	1	N/M ratio for MIMO decided by the Node B	7.6.0
37	RP-070573	1315		Corrections related to changes for Improved L2 and Enhanced FACH	7.6.0
37	RP-070579	1316	1	Clean up of RNSAP Rel 7	7.6.0
37	RP-070579	1317	3	Broadcasted Multiple PLMN list in RNSAP	7.6.0
37	RP-070579	1318	1	Corrections for F-DPCH Slot Format Operation	7.6.0
37	RP-070575	1321		Corrections/Small Improvements for CPC	7.6.0
37	RP-070581	1322	2	Enhancements to Macro Diversity & Cell Interference Control	7.6.0
38	RP-070841	1326	2	ASN1-Tabular alignment for GANSS feature in TS25.423	7.7.0
38	RP-070840	1327	1	Support modification of UE Capabilities Information for a HS-DSCH RL	7.7.0
38	RP-070838	1328		Correction of CPC parameters	7.7.0
38	RP-070911	1329		E-TFCI BetaEC Boost and E-TFCI BetaED Switch IEs updates	7.7.0
38	RP-071017	1330	2	HARQ Memory Partitioning Information Extension For MIMO IE criticality	7.7.0
38	RP-070938	1331		Scheduled Grant setting in DTX Cycle 2 during CPC operation	7.7.0
38	RP-070840	1332	2	Further Introduction of Enhanced Cell FACH related IEs	7.7.0
38	RP-070840	1333	2	Further corrections on Enhanced Cell_FACH	7.7.0
38	RP-070844	1335	3	UE Involved Relocation with Timing Maintaining HHO	7.7.0
38	RP-070839	1336	2	64 QAM Activation	7.7.0
38	RP-070838	1337		Correction for PRXdes_base in LCR TDD EUL	7.7.0
38	RP-070843	1338		Correction for E-DCH Combing in RL Reconfiguration	7.7.0
38	RP-071041	1339	1	Abnormal condition for UL DPCCH slot format 4	7.7.0
38	RP-070843	1340		Correction of the location of Delta T2TP parameter	7.7.0
39	RP-080072	1341	1	Correction on MAC-d PDU Size for E-DCH	7.8.0
39	RP-080073	1342	1	Correction on Abnormal Condition for identical cell on HSDPA/E-DCH Serving Cell	7.8.0
39	RP-080073	1343	1	Correction on HS-DSCH MAC-d PDU Size Format IE in HS-DSCH Information to Modify	7.8.0
39	RP-080072	1344		Abnormal Condition on DL L2 Improvement	7.8.0

39	RP-080072	1345		E-DCH RL Set ID IE handling	7.8.0
39	RP-080074	1346		Transport bearer replacement during HS-DSCH Modification	7.8.0
39	RP-080073	1347		UL DPCCH Slot Format 5 undefined	7.8.0
39	RP-080073	1349	3	Addition of IE "Continuous Packet Connectivity HS-SCCH less Deactive Indicator"	7.8.0
39	RP-080076	1350		Clarification of E-DCH non-scheduled Grant Information for 1.28Mcps TDD	7.8.0
39	RP-080076	1351	1	Introduction of an additional UE Category for 1.28Mcps TDD E-DCH	7.8.0
39	RP-080073	1352		Correction of mistake in CR1243 and other similar wording mistakes	7.8.0
39	RP-080151	1357	2	Correction the condition of UL DPDCH Indicator for E-DCH Operation	7.8.0
40	RP-080295	1365	1	Extended power control gap for E-PUCH in LCR TDD	7.9.0
40	RP-080296	1367	1	Support of octet aligned HS-DSCH transport block sizes for non-64QAM	7.9.0
40	RP-080404	1359	2	Mechanism for Scheduling Information transmission on MAC-e PDU alone for 1.28 Mcps TDD in EUL	7.9.0
40	RP-080298	1369		Power Control Gap IE handling	7.9.0
40	RP-080299	1370	2	RL Parameter Update for E-DCH FDD DL Control Channel Information	7.9.0
40	RP-080298	1372	1	Clarification on Transport Bearer Not Requested Indicator	7.9.0
40	RP-080298	1375		ASN.1 and tabular misalignment	7.9.0
40	RP-080294	1382	1	Use of UL DPDCH Indicator For E-DCH Operation IE for unsynchronised RL reconfiguration	7.9.0
40	RP-080300	1384	1	GANSS Corrections	7.9.0
41	RP-080577	1390		DRX-DTX and F-DPCH	7.10.0
41	RP-080578	1395		Description of Priority Queue ID for Enhanced Cell_FACH	7.10.0
41	RP-080579	1397		Correction of SixtyfourQAM-DL-UsageIndicator	7.10.0
41	RP-080576	1402	2	Addition of 16QAM AG table choice IE	7.10.0
41	RP-080576	1404	1	Adding abnormal conditions to Continuous Packet Connectivity	7.10.0
42	RP-080838	1414	1	Indication of E-DPCCH Power Boosting capability	7.11.0
42	RP-080838	1423	1	Correction on Usage for Transport Bearer Not Requested Indicator	7.11.0
42	RP-080838	1433		Correction of power control gap for 1.28Mcps TDD	7.11.0
43	RP-090075	1435	2	Addition of MBR Parameter for 1.28Mcps TDD Enhanced Uplink	7.12.0
43	RP-090074	1438	2	Addition of Multi-carrier HS-DSCH physical layer category for 1.28Mcps TDD	7.12.0
43	RP-090072	1441		Addition of MAC-hs Reset Indicator IE into RADIO LINK ADDITION FAILURE message	7.12.0
43	RP-090074	1445	1	Addition of DCH Indicator For E-DCH-HSDPA Operation IE into RADIO LINK CONGESTION INDICATION message	7.12.0
43	RP-090072	1451		Addition of F-DPCH Slot Format IE in RADIO LINK SETUP FAILURE and RADIO LINK ADDITION FAILURE message	7.12.0
43	RP-090073	1467		ASN.1 Correction on Transport Bearer Not Requested Indicator in RL Specific E-DCH Information	7.12.0
43	RP-090073	1475		Correction of erroneous IE reference	7.12.0
44	RP-090631	1489	1	Clarification of E-AGCH Table Choice	7.13.0
44	RP-090631	1491	1	Addition of Max UE DTX Cycle into UPLINK SIGNALLING TRANSFER INDICATION message	7.13.0
44	RP-090630	1504	1	Correction of the value range of MAC PDU Size Extended IE in RNSAP	7.13.0

44	RP-090577	1508		Correction of MIMO Information Response IE	7.13.0

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