

# ETSI TS 145 015 V4.0.0 (2004-11)

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*Technical Specification*

**Digital cellular telecommunications system (Phase 2+);  
Release independent Downlink Advanced  
Receiver Performance (DARP);  
Implementation guidelines  
(3GPP TS 45.015 version 4.0.0 Release 4)**

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Reference

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**ETSI**

650 Route des Lucioles  
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C  
Association à but non lucratif enregistrée à la  
Sous-Préfecture de Grasse (06) N° 7803/88

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# Foreword

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Version x.y.z

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- x the first digit:
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  - 2 presented to TSG for approval;
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- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

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# 1 Scope

The present document specifies requirements on MSs supporting Downlink Advanced Receiver Performance (DARP) that are independent of release. TSG GERAN has agreed that the standardisation of DARP be independent of a release. However, in order to implement an MS that conforms to a particular release but supports DARP, which is specified in a later release, it is necessary to specify some extra requirements.

DARP is contained in the Release 6 specifications. In order to implement an MS conforming to Release 4 but supporting DARP, it is necessary for the MS to additionally conform to some parts of the Release 6 specifications, such as the radio frequency requirements for DARP and some signalling extensions relating to the MS Classmark and radio access capabilities.

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# 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 45.005: "Radio transmission and reception (Release 6)".

[2] 3GPP TS 24.008: "Mobile radio interface Layer 3 specification; Core Network protocols; Stage 3 (Release 6)".

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# 3 Definitions and abbreviations

Unless listed below, all definitions and abbreviations used in the present document are listed in documents referenced in clause 2.

## 3.1 Abbreviations

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

DARP                      Downlink Advanced Receiver Performance

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# 4 DARP MS Independent of Release

MSs that conform to Release 4 and support DARP shall support the following requirements in Release 6.

## 4.1 RF Requirements

The MS shall comply with the RF requirements for DARP specified in [1]. These requirements are:

Section 6.3: Reference interference level.

## 4.2 Signalling Requirements

The MS shall support the following information elements specified in [2]:

Section 10.5.1.7 Mobile Station Classmark 3, with the following exceptions:

- Fields *High Multislot Capability*, *GERAN Iu mode Capabilities*, *T-GSM 400 Bands Supported / T-GSM 400 Associated Radio Capability* and *T-GSM 900 Associated Radio Capability* shall be indicated as not present since they are not defined in Release 4. This is done by setting the indication bit to '0'.
- Parameter *GERAN Feature Package 2* shall be indicated as not supported since it is not defined in Release 4. This is done by setting the bit value '0' for this parameter.
- In addition, for *GMSK Multislot Power Profile* and *8-PSK Multislot Power Profile*, the value '00' shall be used as it indicates the same power reduction as defined in Release 4 except that the Release 4 MS might be transmitting at 1dB higher than indicated by this parameter.

Section 10.5.5.12a MS Radio Access Capability, with the following exceptions:

- Fields *High Multislot Capability* and *GERAN Iu Mode Capabilities* shall be indicated as not present since they are not defined in Release 4. This is done by setting the indication bit to '0'.
- Parameter *Multiple TBF Capability* shall be indicated as not supported since it is not defined in Release 4. This is done by setting the bit value '0' for this parameter.
- In addition, for *Access Technology Type*, the values '1001' through to '1011' shall not be used since GSM T 380, GSM T 410 and GSM T 900 are not supported in Release 4; and for *GMSK Multislot Power Profile* and *8-PSK Multislot Power Profile*, the value '00' shall be used as it indicates the same power reduction as defined in Release 4 except that the Release 4 MS might be transmitting at 1dB higher than indicated by this parameter.

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## Annex A (informative): Change history

Change history							
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
2004-11	22	GP-042853			Version for Release 4		4.0.0



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# History

<b>Document history</b>		
V4.0.0	November 2004	Publication