

# ETSI TS 125 307 V14.0.0 (2017-04)



**Universal Mobile Telecommunications System (UMTS);  
Requirements on User Equipments (UEs)  
supporting a release-independent frequency band  
(3GPP TS 25.307 version 14.0.0 Release 14)**



---

Reference

RTS/TSGR-0225307ve00

---

Keywords

UMTS

**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

---

**Important notice**

The present document can be downloaded from:  
<http://www.etsi.org/standards-search>

The present document may be made available in electronic versions and/or in print. The content of any electronic and/or print versions of the present document shall not be modified without the prior written authorization of ETSI. In case of any existing or perceived difference in contents between such versions and/or in print, the only prevailing document is the print of the Portable Document Format (PDF) version kept on a specific network drive within ETSI Secretariat.

Users of the present document should be aware that the document may be subject to revision or change of status. Information on the current status of this and other ETSI documents is available at  
<https://portal.etsi.org/TB/ETSIDeliverableStatus.aspx>

If you find errors in the present document, please send your comment to one of the following services:  
<https://portal.etsi.org/People/CommiteeSupportStaff.aspx>

---

**Copyright Notification**

No part may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm except as authorized by written permission of ETSI.

The content of the PDF version shall not be modified without the written authorization of ETSI.  
The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 2017.  
All rights reserved.

**DECT™**, **PLUGTESTS™**, **UMTS™** and the ETSI logo are Trade Marks of ETSI registered for the benefit of its Members.  
**3GPP™** and **LTE™** are Trade Marks of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners.  
**GSM®** and the GSM logo are Trade Marks registered and owned by the GSM Association.

---

## Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: "*Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards*", which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (<https://ipr.etsi.org>).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

---

## Foreword

This Technical Specification (TS) has been produced by ETSI 3rd Generation Partnership Project (3GPP).

The present document may refer to technical specifications or reports using their 3GPP identities, UMTS identities or GSM identities. These should be interpreted as being references to the corresponding ETSI deliverables.

The cross reference between GSM, UMTS, 3GPP and ETSI identities can be found under <http://webapp.etsi.org/key/queryform.asp>.

---

## Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the [ETSI Drafting Rules](#) (Verbal forms for the expression of provisions).

"**must**" and "**must not**" are **NOT** allowed in ETSI deliverables except when used in direct citation.

---

# Contents

|   |           |
|---|-----------|
| Intellectual Property Rights .....  | 2         |
| Foreword.....   | 2         |
| Modal verbs terminology.....  | 2         |
| Foreword.....   | 4         |
| 1 Scope .....   | 5         |
| 2 References .....  | 5         |
| 3 Definitions and abbreviations.....  | 5         |
| 3.1 Definitions .....   | 5         |
| 3.2 Abbreviations .....   | 5         |
| 3A General .....  | 5         |
| 4 Void.....   | 6         |
| 5 Void.....   | 6         |
| 6 Void.....   | 6         |
| 7 Void.....   | 6         |
| 8 Void.....   | 6         |
| 9 Void.....   | 6         |
| 10 Void.....  | 6         |
| 11 Void.....  | 6         |
| 12 Void.....  | 6         |
| 13 Void.....  | 6         |
| 14 Void.....  | 6         |
| 15 Void.....  | 7         |
| 16 Void.....  | 7         |
| 17 Void.....  | 7         |
| 18 Void.....  | 7         |
| 19 Void.....  | 7         |
| 20 Void.....  | 7         |
| 21 Void.....  | 7         |
| 22 Void.....  | 7         |
| 23 Void.....  | 7         |
| 24 Void.....  | 7         |
| 25 Void.....  | 7         |
| <b>Annex A (normative): Void .....</b>  | <b>8</b>  |
| <b>Annex B (normative): Frequency arrangement for overlapping operating bands .....</b> | <b>9</b>  |
| <b>Annex C (informative): Change history .....</b>                                      | <b>10</b> |
| History .....   | 11        |

---

# Foreword

This Technical Specification has been produced by the 3<sup>rd</sup> Generation Partnership Project (3GPP).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

- x the first digit:
  - 1 presented to TSG for information;
  - 2 presented to TSG for approval;
  - 3 or greater indicates TSG approved document under change control.
- 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.

---

# 1 Scope

The present document specifies requirements on UEs supporting a frequency band that is independent of release.

---

## 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 TR 21.905: "Vocabulary for 3GPP Specifications".

[2] to [29] Void.

[30] 3GPP TS 25.101: "UE Radio Transmission and Reception (FDD)".

[31] 3GPP TS 25.102: "UE Radio Transmission and Reception (TDD)".

---

## 3 Definitions and abbreviations

### 3.1 Definitions

For the purposes of the present document, the terms and definitions given in [1] apply.

### 3.2 Abbreviations

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

|     |                           |
|-----|---------------------------|
| FDD | Frequency Division Duplex |
| RRC | Radio Resource Control    |
| UE  | User Equipment            |

---

## 3A General

TSG-RAN has agreed that the standardisation of new frequency bands may be independent of a release. However, in order to implement a UE that conforms to a particular release but supports a band of operation that is specified in a later release, it is necessary to specify some extra requirements.

For example, Band III is contained in the Release 5 specifications. In order to implement a UE conforming to Release '4 but supporting Band III, it is necessary for the UE to additionally conform to some parts of the Release 5 specifications, such as the radio frequency requirements for the Band III and some signalling extensions relating to the UE radio access capabilities.

NOTE: See NOTE in clause 4.4 in [30] or [31].

---

4 Void

---

5 Void

---

6 Void

---

7 Void

---

8 Void

---

9 Void

---

10 Void

---

11 Void

---

12 Void

---

13 Void

---

14 Void

---

15    Void

---

16    Void

---

17    Void

---

18    Void

---

19    Void

---

20    Void

---

21    Void

---

22    Void

---

23    Void

---

24    Void

---

25    Void



## Annex A (normative): Void

## Annex B (normative): Frequency arrangement for overlapping operating bands

The following information is provided in order to assist a UE to derive the DL UARFCN and UL UARFCN in a multi-band environment, in which multiple overlapping operating bands may be indicated in the IE "Multiple Frequency Band indicator list" (System Information Block type 5, System Information Block type 5bis and System Information Block type 6), or the IE "Multiple Frequency Info List FDD" (System Information Block type 11, System Information Block type 11bis and System Information Block type 12).

The sets of bands (multi-band environment), independent of release, that may be indicated in a cell are shown in Table B-1. Subsets of these may also be indicated. The DL UARFCN and UL UARFCN are derived according to [25.101].

**Table B-1: Overlapping bands (multi-band environments) for each UTRA band**

| UTRA Operating Band | Overlapping UTRA operating bands | Duplex Mode |
|---------------------|----------------------------------|-------------|
| 2                   | 25                               | FDD         |
| 3                   | 9                                | FDD         |
| 4                   | 10                               | FDD         |
| 5                   | 18, 19, 26                       | FDD         |
| 9                   | 3                                | FDD         |
| 10                  | 4                                | FDD         |
| 18                  | 5, 26                            | FDD         |
| 19                  | 5, 26                            | FDD         |
| 25                  | 2                                | FDD         |
| 26                  | 5, 18, 19                        | FDD         |

## Annex C (informative): Change history

| Change history |       |           |      |     |     |   |        |
|----------------|-------|-----------|------|-----|-----|---|--------|
| Date           | TSG # | TSG Doc.  | CR   | Rev | Cat | Subject/Comment   | New    |
| 09/2001        | RP-13 | RP-010557 |      |     |     | Approved at TSG-RAN #13 and placed under Change Control   | 3.0.0  |
|                | RP-13 | RP-010558 | 001  | 1   |     | Correction to create Release 4  | 4.0.0  |
| 12/2001        | RP-14 | RP-010759 | 003  |     |     | Inclusion of release independent RF related information   | 4.1.0  |
| 03/2002        | RP-15 | RP-020096 | 004  |     |     | Creation of Rel-5 specification   | 5.0.0  |
| 12/2003        | RP-22 | RP-030630 | 010  |     |     | Introduction of UMTS800   | 6.0.0  |
| 03/2004        | RP-23 | RP-040092 | 016  | 1   |     | Frequency band alignment with 25.101  | 6.1.0  |
|                | RP-23 | RP-040090 | 023  |     |     | Introduction of UMTS1700/2100 (Band IV)   | 6.1.0  |
|                | RP-23 | RP-040091 | 027  |     |     | Introduction of UMTS850(Band V)   | 6.1.0  |
| 09/2005        | RP-29 | RP-050467 | 0038 |     |     | Introduction of UMTS2600 internal band, Band VII  | 6.2.0  |
| 12/2005        | RP-30 | RP-050800 | 0042 |     |     | Introduction of UMTS 900 (Band VIII)  | 6.3.0  |
|                | RP-30 | RP-050801 | 0034 |     |     | Introduction of UMTS1700  | 6.3.0  |
| 06/2006        | RP-32 | RP-060369 | 0043 |     |     | Creation of release 7 version   | 7.0.0  |
| 12/2006        | RP-34 | RP-060715 | 0057 |     |     | Introduction of Band X (Extended UMTS 1.7/2.1 GHz) in 25.307  | 7.1.0  |
| 09/2007        | RP-37 | RP-070633 | 0066 |     |     | Introduction of Band XI   | 8.0.0  |
| 03/2008        | RP-39 | RP-080200 | 0072 | -   |     | Introduction of UMTS 700 MHz (Bands XII – XIV) in 25.307  | 8.1.0  |
| 09/2008        | RP-41 | RP-080676 | 0077 | -   |     | Introduction of UMTS Band d in 25.307   | 8.2.0  |
| 09/2008        | RP-41 | RP-080695 | 0082 | -   |     | Introduction of UMTS Band e in 25.307   | 8.2.0  |
| 03/2009        | RP-43 | RP-090146 | 0087 | -   |     | Introduction of UMTS Band f in 25.307   | 8.3.0  |
| 09/2009        | RP-45 | RP-090921 | 0089 | -   |     | Introduction of Band XIX  | 8.4.0  |
| 09/2009        | RP-45 | RP-090921 | 0088 | 1   |     | Introduction of Band XIX  | 9.0.0  |
| 12/2009        | RP-46 | RP-091333 | 0094 | -   |     | Editorial corrections for Introduction of Band XIX  | 9.1.0  |
|                | RP-46 | RP-091335 | 0100 | 1   |     | Introduction of band XXI - 25.307   | 9.1.0  |
| 03/2010        | RP-47 | RP-100302 | 0106 | -   |     | Introduction of band XX (800 MHz)   | 9.2.0  |
| 03/2011        | RP-51 | -         | -    | -   |     | Upgrade to Release 10 - no technical change   | 10.0.0 |
| 06/2011        | RP-52 | RP-110844 | 0141 | 1   |     | Add Expanded 1900 MHz Band for UTRA and LTE to TS25.307   | 10.1.0 |
| 09/2011        | RP-53 | RP-111294 | 0161 | -   |     | Add Band XXII for LTE/UMTS 3500 (FDD)   | 10.2.0 |
| 03/2012        | RP-55 | RP-120328 | 0168 | -   |     | Add Extending 850 MHz Upper Band (814 - 849 MHz) to TS25.307  | 10.3.0 |
| 06/2012        | RP-56 | RP-120816 | 0170 | -   |     | Add Extending 850 MHz Upper Band (814 - 849 MHz) to TS25.307  | 11.0.0 |
| 12/2012        | RP-58 | RP-121922 | 0193 | -   |     | Multiple frequency band indicators per cell   | 11.1.0 |
| 03/2014        | RP-63 | RP-140336 | 0207 | 1   |     | Introducing 'General' clause with note referring to notes in clause 4.4 in TS25.101 and TS25.102, editorial modifications to Scope clause | 11.2.0 |
| 09/2014        | RP-65 | -         | -    | -   |     | Upgrade to the Release 12 - no technical change   | 12.0.0 |
| 12/2015        | RP-70 | -         | -    | -   |     | Upgrade to the Release 13 - no technical change   | 13.0.0 |
| 03/2017        | RP-75 | -         | -    | -   |     | Upgrade to Release 14 - no technical change   | 14.0.0 |

---

# History

| <b>Document history</b> |            |             |
|-------------------------|------------|-------------|
| V14.0.0                 | April 2017 | Publication |
|                         |            |             |
|                         |            |             |
|                         |            |             |
|                         |            |             |