

ETSI TS 121 101 V17.2.0 (2025-03)



**Universal Mobile Telecommunications System (UMTS);
Technical Specifications and Technical Reports
for a UTRAN-based 3GPP system
(3GPP TS 21.101 version 17.2.0 Release 17)**



Reference

RTS/TSGS-0021101vh20

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 - APE 7112B
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° w061004871

Important notice

The present document can be downloaded from the
[ETSI Search & Browse Standards application](#).

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 prevailing version of an ETSI deliverable is the one made publicly available in PDF format on [ETSI deliver repository](#).

Users should be aware that the present document may be revised or have its status changed, this information is available in the [Milestones listing](#).

If you find errors in the present document, please send your comments to the relevant service listed under [Committee Support Staff](#).

If you find a security vulnerability in the present document, please report it through our [Coordinated Vulnerability Disclosure \(CVD\)](#) program.

Notice of disclaimer & limitation of liability

The information provided in the present deliverable is directed solely to professionals who have the appropriate degree of experience to understand and interpret its content in accordance with generally accepted engineering or other professional standard and applicable regulations.

No recommendation as to products and services or vendors is made or should be implied.

No representation or warranty is made that this deliverable is technically accurate or sufficient or conforms to any law and/or governmental rule and/or regulation and further, no representation or warranty is made of merchantability or fitness for any particular purpose or against infringement of intellectual property rights.

In no event shall ETSI be held liable for loss of profits or any other incidental or consequential damages.

Any software contained in this deliverable is provided "AS IS" with no warranties, express or implied, including but not limited to, the warranties of merchantability, fitness for a particular purpose and non-infringement of intellectual property rights and ETSI shall not be held liable in any event for any damages whatsoever (including, without limitation, damages for loss of profits, business interruption, loss of information, or any other pecuniary loss) arising out of or related to the use of or inability to use the software.

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.

© ETSI 2025.
All rights reserved.

Intellectual Property Rights

Essential patents

IPRs essential or potentially essential to normative deliverables may have been declared to ETSI. The declarations pertaining to these essential IPRs, if any, are 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 IPR online database](#).

Pursuant to the ETSI Directives including the ETSI IPR Policy, no investigation regarding the essentiality of IPRs, 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.

Trademarks

The present document may include trademarks and/or tradenames which are asserted and/or registered by their owners. ETSI claims no ownership of these except for any which are indicated as being the property of ETSI, and conveys no right to use or reproduce any trademark and/or tradename. Mention of those trademarks in the present document does not constitute an endorsement by ETSI of products, services or organizations associated with those trademarks.

DECT™, **PLUGTESTS™**, **UMTS™** and the ETSI logo are trademarks of ETSI registered for the benefit of its Members. **3GPP™**, **LTE™** and **5G™** logo are trademarks of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners. **oneM2M™** logo is a trademark of ETSI registered for the benefit of its Members and of the oneM2M Partners. **GSM®** and the GSM logo are trademarks registered and owned by the GSM Association.

Legal Notice

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. These shall be interpreted as being references to the corresponding ETSI deliverables.

The cross reference between 3GPP and ETSI identities can be found at [3GPP to ETSI numbering cross-referencing](#).

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
Legal Notice	2
Modal verbs terminology.....	2
Foreword.....	4
1 Scope	5
2 References	5
3 Abbreviations	5
4 General	5
5 Specifications and Reports	5
Annex A (informative): Change history	6
History	8

Foreword

This Technical Specification (TS) has been produced by the 3rd 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 identifies the 3GPP system specifications for Release 17. The specifications and reports of this Release have a major version number 17 (i.e. 17.x.y). The listed Specifications are required to build a system based on UTRAN radio technology.

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] 3GPP TR 21.900: "Technical Specification Group working methods".

3 Abbreviations

For the purposes of the present document, the terms and definitions given in 3GPP TS 21.905 [1] apply.

4 General

The numbering scheme for specifications is described in 3GPP TR 21.900 [2].

5 Specifications and Reports

The list of Technical Specifications and Technical Reports can be found at <https://portal.3gpp.org/Specifications.aspx?q=1&tbid=All&releases=192&draft=False&underCC=True&withACC=False&withBCC=False&tech=2&numberNYA=False>

NOTE 1: The padlock icon on the right of each row indicates whether or not the documents are intended for adoption by the partner Standards Development Organizations as their own publications. Those with a padlock icon are internal working documents of the 3GPP TSGs.

NOTE 2: Some of the algorithm specifications in the 35.-series are available only under licence.

NOTE 3: "Type" indicates Technical Specification (TS) or Technical Report (TR).

Annex A (informative): Change history

Change history					
TSG SA#	Version	CR	Tdoc SA	New Version	Subject/Comment
SP-12	3GPP TS 21.103 version 0.0.0	-	SP-010275	3GPP TS 21.103 version 0.1.0	First draft
	0.1.0		SP-010382	1.0.0	table of specs revised
SP-13	1.0.0		SP-010418	1.1.0	table of specs revised
SP-15	1.1.0		SP-020095	1.2.0	table of specs revised; columns to show freeze status added
SP-15	1.2.0		SP-020202	2.0.0	table of specs revised
SP-16	2.0.0		SP-020271	2.1.0	table of specs revised
	2.1.0		SP-020398	2.2.0	table of specs revised
	2.2.0		SP-020410	5.0.0	table of specs revised; unknown freeze target dates blanked approved
SP-17	5.0.0	001 r1	SP-020628	5.1.0	updates lists of specs, editorial corrections to titles of specs
SP-18	5.1.0	002 r1	SP-020831	5.2.0	Correction to list of specs, editorial corrections to titles of specs
SP-19	5.2.0	003 r1	SP-030077	5.3.0	Correction to list of specs, editorial corrections to titles of specs
SP-20	3GPP TS 21.103 version 5.3.0	004	SP-030229	3GPP TS 21.101 version 5.4.0	Correction to list of specs
			SP-030235		Renummer from 21.103 to 21.101
SP-22	5.4.0	017	SP-030574	5.5.0	Correction to list of specs, editorial corrections to spec titles
SP-23	5.5.0	020 r2	SP-040221	5.6.0	Corrections to list of specifications
SP-24	5.6.0	021 r1	SP-040358	5.7.0	Corrections to list of specifications
SP-26	5.7.0	025 r1	SP-040880	6.0.0	Corrections to list of specifications
SP-27	6.0.0	029	SP-050126	6.1.0	Corrections to list of specifications
SP-28	6.1.0	031 r1	SP-050356	6.2.0	Corrections to list of specifications
SP-29	6.2.0	032	SP-050470	6.3.0	Change instances of Release 5 to Release 6
		033	SP-050462		Corrections to list of specifications
SP-30	6.3.0	034 r1	SP-050845	6.4.0	Corrections to list of specifications
post SP-31	6.4.0			6.4.1	Correction to title of reference to 21.900. Correction to spec list table entries for 23.125 and 32.251 to show that the <i>are</i> intended for SDO publication.
post SP-31	6.4.1			6.4.2	Corrects cover date.
SP-34	6.4.2	038	SP-060901	6.5.0	Correction to list of Specs and minor editorials
SP-35	6.5.0	038	SP-070188	6.6.0	Corrections to list of specifications
SP-36	6.6.0	041	SP-070344	6.7.0	Corrections to list of specifications
SP-37	6.7.0	042	SP-070519	7.0.0	Upgrade to Rel-7
SP-38	7.0.0	047	SP-070770	7.1.0	Corrections to list of specifications
		052			Update of informative text
SP-40	7.1.0	053	SP-080435	7.2.0	Corrections to list of specifications
SP-42	7.2.0	054 r1	SP-080722	7.3.0	Corrections to list of specifications
SP-43	7.3.0	057 r1	SP-090033	8.0.0	List of Rel-8 specifications
SP-44	8.0.0	058 r1	SP-090382	8.1.0	Corrections to list of specifications
SP-46	8.1.0	064 r1	SP-090695	8.2.0	Corrections to list of specifications
SP-47	8.2.0	065	SP-100012	9.0.0	Update list of specs
SP-51	9.0.0			10.0.0	Automatic upgrade on freezing Release
SP-52	10.0.0	068	SP-110298	10.1.0	Corrections to list of specifications

SP-55	10.1.0	071 r1	SP-120114	10.2.0	Changes to list of Specs: UTRAN systems
SP-59	10.2.0	072	SP-130155	10.3.0	Update list of specs
SP-59	10.3.0	073	SP-130155	11.0.0	Update list of specs
SP-64	11.0.0	075	SP-140200	11.1.0	Update to list of specs

Change history							
Date	Meeting	TDoc	CR	Rev	Cat	Subject/Comment	New version
2016-03	SA#71	SP-160124	0077		F	Update to list of specs	12.0.0
2016-05						Empty table in clause 5 removed	12.0.1
2016-12	SA#74	SP-160973	0078	1	F	Update to list of specs	13.0.0
2017-03	SA#75					Promotion to Release 14 without technical change	14.0.0
2017-06	SA#76	SP-170459	0079		F	Replace list of specs with pointer to web page showing up to date list	14.1.0
2018-06	SA#80					Upgrade unchanged on Rel-15 freeze	15.0.0
2020-07	SA#88-e					Upgrade on Rel-16 freeze	16.0.0
2022-03	SA#95-e					Upgrade on Rel-17 freeze	17.0.0
2023-03	SA#99	SP-230321	0083		A	Correction of specs list URL	17.1.0
2025-03	SA#107	SP-250224	0090	1	F	Correction of Release	17.2.0

History

Document history		
V17.0.0	April 2022	Publication
V17.1.0	April 2023	Publication
V17.2.0	March 2025	Publication