

ETSI TS 151 010-2 V13.0.0 (2016-05)



**Digital cellular telecommunications system (Phase 2+);
Mobile Station (MS) conformance specification;
Part 2: Protocol Implementation Conformance
Statement (PICS) proforma specification
(3GPP TS 51.010-2 version 13.0.0 Release 13)**



ReferenceRTS/TSGG-0351010-2vd00

Keywords

GSM

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

<http://portal.etsi.org/tb/status/status.asp>

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 2016.

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.....	5
Introduction	5
1 Scope	6
2 References	6
3 Definitions and abbreviations.....	13
3.1 Definitions	13
3.2 Abbreviations	13
4 Conformance to this PICS proforma.....	13
Annex A (normative): PICS proforma for GSM mobile stations	14
A.1 Guidance for completing the PICS proforma.....	14
A.1.1 Purposes and structure.....	14
A.1.2 Abbreviations and conventions	14
A.1.3 Instructions for completing the PICS proforma.....	16
A.2 Identification of the implementation	16
A.2.1 Date of the statement.....	16
A.2.2 Implementation Under Test (IUT) identification	16
A.2.3 System Under Test (SUT) identification.....	17
A.2.4 Product supplier.....	17
A.2.5 Client.....	17
A.2.6 PICS contact person	18
A.3 Identification of the protocol.....	18
A.4 PICS proforma tables	18
A.4.1 Global statement of conformance.....	18
A.4.2 Types of Mobile Stations	20
A.4.3 Mobile Station Features.....	38
A.4.4 Teleservices	44
A.4.5 Bearer Services.....	45
A.4.6 Supplementary Services	47
A.4.7 Bearer Capability Information.....	49
A.4.8 Additional Information.....	69
A.4.9 SIM Application Toolkit	83
A.4.9.1 SIM Application Toolkit mechanism.....	84
A.4.9.1.1 Terminal Profile	84
A.4.10 Support of UTRAN Radio Access Technology.....	84
Annex B (normative): Applicability of the individual test	85
Annex C (informative): Guidance for updating the PICS specification.....	295
C.1 Update of tables of annex A	295
C.2 Identification of PICS items	295
C.3 Update of PICS items.....	295
C.4 Update of table B.1 of annex B	295
C.5 Update of the listed tests of table B.1.....	296

C.6 Update of the applicability conditions of table B.1296

Annex D (informative): Labelling of Inter-RAT signalling test cases297

D.1 GERAN/UTRAN band combinations for inter-RAT tests.....297

Annex E (informative): Change history298

History320

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
<https://standards.iteh.ai/catalog/standards/sist/6e3868e5-2d46-4166-b481-bbb122092cf8/etsi-ts-151-010-2-v13.0.0>
2016-05

Foreword

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.

This 3GPP TS provides the Protocol Implementation Conformance Statement (PICS) proforma for Mobile Stations (MSs), operating in the 400 MHz, 700 MHz, 850 MHz, 900 MHz, 1 800 MHz and 1 900 MHz frequency band (GSM 400, GSM 700, GSM 850, R-GSM 900, ER-GSM 900, GSM 900, DCS 1 800 and PCS 1 900) within the digital cellular telecommunications system.

The present document is part 2 of a multi-part deliverable covering the Digital cellular telecommunications system (GSM Phase2 and Phase 2+ Releases 1996, 1997, 1998, 1999, 3GPP Release 4, 3GPP Release 5, 3GPP Release 6, 3GPP Release 7, 3GPP Release 8, 3GPP Release 9, 3GPP Release 10, 3GPP Release 11 and 3GPP Release 12); Mobile Station (MS) conformance specification, as identified below:

- Part 1: Conformance specification
Reference: 3GPP TS 51.010-1.
- Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification.
Reference: 3GPP TS 51.010-2.**
- Part 3: Layer 3 (L3) Abstract Test Suite (ATS).
Reference: 3GPP TS 51.010-3 v6.3.0 (Note 1).
- Part 4: SIM Application Toolkit conformance specification
Reference: 3GPP TS 51.010-4.
- Part 5: Inter-RAT (GERAN to UTRAN) Abstract Test Suite (ATS)
Reference: 3GPP TS 51.010-5.
- Part 7: Location Services (LCS) test scenarios and assistance data.
Reference: 3GPP TS 51.010-7.

NOTE 1: GP-25: TTCN is not maintained after v6.3.0, and is henceforward to be considered an example test suite rather than the conformance tests

Introduction

To evaluate conformance of a particular implementation, it is necessary to have a statement of which capabilities and options have been implemented for a telecommunication specification. Such a statement is called an Implementation Conformance Statement (ICS).

1 Scope

The present document provides the Protocol Implementation Conformance Statement (PICS) proforma for Global System for Mobile Stations (MSs), operating in the 450 MHz, 480 MHz, 700 MHz, 750 MHz, 850 MHz, 900 MHz, 1 800 MHz and 1 900 MHz frequency band (GSM 400, GSM 700, GSM 750, GSM 850, R-GSM 900, ER-GSM 900, GSM 900, DCS 1 800 and PCS 1 900) within the European digital cellular telecommunications system, in compliance with the relevant requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-7 [3] and ETS 300 406 [1].

The present document is valid for MS implemented according to GSM Phase2 or Phase2+ R96, or R97, or R98, or R99 or 3GPP Release 4 or 3GPP Release 5 or 3GPP Release 6 or 3GPP Release 7 or 3GPP Release 8, 3GPP Release 9 or 3GPP Release 10 or 3GPP Release 11 or 3GPP Release 12.

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 relevant Release*.
 - For a GSM Phase 2+ Release 12 MS, references to GSM documents are to version 12.x.y, when available.
 - For a GSM Phase 2+ Release 11 MS, references to GSM documents are to version 11.x.y, when available.
 - For a GSM Phase 2+ Release 10 MS, references to GSM documents are to version 10.x.y, when available.
 - For a GSM Phase 2+ Release 9 MS, references to GSM documents are to version 9.x.y, when available.
 - For a GSM Phase 2+ Release 8 MS, references to GSM documents are to version 8.x.y, when available.
 - For a GSM Phase 2+ Release 7 MS, references to GSM documents are to version 7.x.y, when available.
 - For a GSM Phase 2+ Release 6 MS, references to GSM documents are to version 6.x.y, when available.
 - For a GSM Phase 2+ Release 5 MS, references to GSM documents are to version 5.x.y, when available.
 - For a GSM Phase 2+ Release 4 MS, references to GSM documents are to version 4.x.y, when available.
 - For a GSM Phase 2+ Release 1999 MS, references to GSM documents are to version 8.x.y (for 01.-series to 12.-series) or (3.x.y for 21.-series to 35.-series), when available.
 - For a GSM Phase 2+ Release 1998 MS, references to GSM documents are to version 7.x.y, when available.
 - For a GSM Phase 2+ Release 1997 MS, references to GSM documents are to version 6.x.y, when available.
 - For a GSM Phase 2+ Release 1996 MS, references to GSM documents are to version 5.x.y, when available.
 - For a GSM Phase 2 MS, references to GSM documents are to version 4.x.y.

NOTE: References to 3GPP Technical Specifications and Technical Reports throughout this document shall be interpreted according to the Release shown in the formal reference in this clause, based upon the Release of the implementation under test.

Example 1: References for a Ph2 MS shall be interpreted as:

[1] 3GPP TS 01.04 Ph2

[2] 3GPP TS 02.02 Ph2

etc

Example 2: References for a Rel-4 MS shall be interpreted as:

[1] 3GPP TS 21.905 Rel-4

[2] 3GPP TS 22.002 Rel-4

etc

- [1] ETS 300 406 (January 1995): "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".
- [2] ISO/IEC 9646-1 (1995): "Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 1: General concepts".
- [3] ISO/IEC 9646-7 (1995): "Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 7: Implementation Conformance Statements".
- [4] 3GPP TS 02.01 (Ph2 to R98): "Principles of telecommunication services supported by a GSM Public Land Mobile Network (PLMN)".
3GPP TS 22.001 (R99 onwards): "Principles of circuit telecommunication services supported by a Public Land Mobile Network (PLMN)".
- [5] 3GPP TS 02.02 (Ph2 to R98): "Bearer Services (BS) supported by a GSM Public Land Mobile Network (PLMN)".
3GPP TS 22.002 (R99 onwards): "Circuit Bearer Services (BS) supported by a Public Land Mobile Network (PLMN)".
- [6] 3GPP TS 02.03 (Ph2 to R98): "Teleservices supported by a GSM Public Land Mobile Network (PLMN)".
3GPP TS 22.003 (R99 onwards): "Circuit Teleservices supported by a Public Land Mobile Network (PLMN)".
- [7] 3GPP TS 02.04 (Ph2 to R98): "General on supplementary services".
3GPP TS 22.004 (R99 onwards): "General on supplementary services".
- [8] 3GPP TS 02.06 (Ph2 to R98): "Types of Mobile Stations (MS)".
- [8a] 3GPP TS 22.101 (R99 onwards): "Service aspects; Service principles".
- [9] 3GPP TS 02.07 (Ph2 to R98): "Mobile Station (MS) features".
- [10] 3GPP TS 02.09 (Ph2 to R99): "Security aspects".
3GPP TS 42.009 (Rel-4 onwards): "Security aspects".
- [11] 3GPP TS 02.11 (Ph2 to R98): "Service accessibility".
3GPP TS 22.011 (R99 onwards): "Service accessibility".
- [12] 3GPP TS 02.16 (Ph2 to R98): "International Mobile station Equipment Identities (IMEI)".
3GPP TS 22.016 (R99 onwards): "International Mobile Equipment Identities (IMEI)".
- [13] 3GPP TS 02.17 (Ph2 to R99): "Subscriber Identity Modules (SIM); Functional characteristics".
3GPP TS 42.017 (Rel-4 onwards): "Subscriber Identity Modules (SIM); Functional characteristics".

- [14] 3GPP TS 02.24 (Ph2 to R98): "Description of Charge Advice Information (CAI)".
3GPP TS 22.024 (R99 onwards): "Description of Charge Advice Information (CAI)".
- [15] 3GPP TS 02.30 (Ph2 to R98): "Man-Machine Interface (MMI) of the Mobile Station (MS)".
3GPP TS 22.030 (R99 onwards): "Man-Machine Interface (MMI) of the User Equipment (UE)".
- [16] 3GPP TS 02.40 (Ph2 to R98): "Procedures for call progress indications".
- [17] 3GPP TS 02.41 (Ph2 to R98): "Operator determined barring".
3GPP TS 22.041 (R99 onwards): "Operator determined barring".
- [18] 3GPP TS 02.81 (Ph2 to R98): "Line identification supplementary services; Stage 1".
3GPP TS 22.081 (R99 onwards): "Line identification supplementary services; Stage 1".
- [19] 3GPP TS 02.82 (Ph2 to R98): "Call Forwarding (CF) supplementary services; Stage 1".
3GPP TS 22.082 (R99 onwards): "Call Forwarding (CF) supplementary services; Stage 1".
- [20] 3GPP TS 02.83 (Ph2 to R98): "Call Waiting (CW) and Call Hold (HOLD) supplementary services; Stage 1".
3GPP TS 22.083 (R99 onwards): "Call Waiting (CW) and Call Hold (HOLD) supplementary services; Stage 1".
- [21] 3GPP TS 02.84 (Ph2 to R98): "MultiParty (MPTY) supplementary services; Stage 1".
3GPP TS 22.084 (R99 onwards): "MultiParty (MPTY) supplementary services; Stage 1".
- [22] 3GPP TS 02.85 (Ph2 to R98): "Closed User Group (CUG) supplementary services; Stage 1".
3GPP TS 22.085 (R99 onwards): "Closed User Group (CUG) supplementary services; Stage 1".
- [23] 3GPP TS 02.86 (Ph2 to R98): "Advice of Charge (AoC) supplementary services; Stage 1".
3GPP TS 22.086 (R99 onwards): "Advice of Charge (AoC) supplementary services; Stage 1".
- [24] 3GPP TS 03.40 (Ph2 to R98): "Technical realization of the Short Message Service (SMS) Point to Point (PP)".
3GPP TS 23.040 (R99 onwards): "Technical realization of Short Message Service".
- [25] 3GPP TS 03.41 (Ph2 to R98): "Technical realization of Short Message Service Cell Broadcast (SMSCB)".
3GPP TS 23.041 (R99 onwards): "Technical realization of Cell Broadcast Service (CBS)".
- [26] 3GPP TS 03.45 (Ph2 to R99): "Technical Realization of Facsimile Group 3-transparent".
3GPP TS 43.045 (Rel-4 onwards): "Technical Realization of Facsimile Group 3 Service - transparent".
- [27] 3GPP TS 03.46 (Ph2 to R99): "Technical Realization of Facsimile Group 3 Service-non transparent".
3GPP TS 23.146 (Rel-4 onwards): "Technical realization of facsimile group 3 service-non-transparent".
- [28] 3GPP TS 04.02 (Ph2 to R98): "GSM Public Land Mobile Network (PLMN) access reference configuration".
3GPP TS 24.002 (R99 onwards): "GSM-UMTS Public Land Mobile Network (PLMN) Access Reference Configuration".
- [29] 3GPP TS 04.04 (Ph2 to R99): "Layer 1; General requirements".

- 3GPP TS 44.004 (Rel-4 onwards): "Layer 1; General requirements".
- [30] 3GPP TS 04.05 (Ph2 to R99): "Data Link (DL) layer; General aspects".
- 3GPP TS 44.005 (Rel-4 onwards): "Data Link (DL) layer; General aspects".
- [31] 3GPP TS 04.06 (Ph2 to R99): "Mobile Station – Base Station System (MS – BSS) interface Data Link (DL) layer specification".
- 3GPP TS 44.006 (Rel-4 onwards): "Mobile Station - Base Station System (MS - BSS) interface Data Link (DL) layer specification".
- [32] 3GPP TS 04.07 (Ph2 to R98): "Mobile radio interface signalling layer 3; General aspects".
- 3GPP TS 24.007 (R99 onwards): "Mobile radio interface signalling layer 3; General Aspects".
- [33] 3GPP TS 04.08 (Ph2 to R99): "Mobile radio interface layer 3 specification". (see note)
- 3GPP TS 24.008 (R99 onwards): "Mobile radio interface layer 3 specification; Core network protocols; Stage 3". (see note)
- 3GPP TS 44.008 (Rel-4): "Mobile radio interface layer 3 specification". (see note)
- [34] 3GPP TS 04.10 (Ph2 to R98): "Mobile radio interface layer 3; Supplementary services specification; General aspects".
- 3GPP TS 24.010 (R99 onwards): "Mobile radio interface Layer 3; Supplementary services specification; General aspects".
- [35] 3GPP TS 04.11 (Ph2 to R98): "Point-to-Point (PP) Short Message Service (SMS) support on mobile radio interface".
- 3GPP TS 24.011 (R99 onwards): "Point-to-Point (PP) Short Message Service (SMS) support on mobile radio interface".
- [36] 3GPP TS 04.12 (Ph2 to R99): "Short Message Service Cell Broadcast (SMSCB) support on the mobile radio interface".
- 3GPP TS 44.012 (Rel-4 onwards): "Short Message Service Cell Broadcast (SMSCB) support on the mobile radio interface".
- [37] 3GPP TS 04.13 (Ph2 to R99): "Performance requirements on mobile radio interface".
- 3GPP TS 44.013 (Rel-4 onwards): "Performance requirements on the mobile radio interface".
- [37a] 3GPP TS 04.14 (R96 to R99): "Individual equipment type requirements and interworking; Special conformance testing functions".
- 3GPP TS 44.014 (Rel-4 onwards): "Individual equipment type requirements and interworking; Special conformance testing functions".
- [38] 3GPP TS 04.21 (Ph2 to R99): "Rate adaption on the Mobile Station – Base Station System (MS – BSS) interface".
- 3GPP TS 44.021 (Rel-4 onwards): "Rate adaption on the Mobile Station - Base Station System (MS - BSS) interface".
- [39] 3GPP TS 04.22 (Ph2 to R98): "Radio Link Protocol (RLP) for data and telematic services on the Mobile Station – Base Station System (MS – BSS) interface and the Base Station System – Mobile-services Switching Centre (BSS – MSC) interface".
- 3GPP TS 24.022 (R99 onwards): "Radio Link Protocol (RLP) for circuit switched bearer and teleservices".
- [40] 3GPP TS 04.80 (Ph2 to R98): "Mobile radio interface layer 3; supplementary services specification; Formats and coding". (See Note 1)

- 3GPP TS 24.080 (R99 onwards): "Mobile radio Layer 3; supplementary service specification; Formats and coding".
- [41] 3GPP TS 04.81 (Ph2 to R98): "Line identification supplementary services; Stage 3".
3GPP TS 24.081 (R99 onwards): "Line identification supplementary service; Stage 3".
- [42] 3GPP TS 04.82 (Ph2 to R98): "Call Forwarding (CF) supplementary services; Stage 3".
3GPP TS 24.082 (R99 onwards): "Call Forwarding (CF) supplementary service; Stage 3".
- [43] 3GPP TS 04.83 (Ph2 to R98): "Call Waiting (CW) and Call Hold (HOLD) supplementary services; Stage 3".
3GPP TS 24.083 (R99 onwards): "Call Waiting (CW) and Call Hold (HOLD) supplementary service; Stage 3".
- [44] 3GPP TS 04.84 (Ph2 to R98): "MultiParty (MPTY) supplementary services; Stage 3".
3GPP TS 24.084 (R99 onwards): "Multiparty (MPTY) supplementary service; Stage 3".
- [45] 3GPP TS 04.85 (Ph2 to R98): "Closed User Group (CUG) supplementary services; Stage 3".
3GPP TS 24.085 (R99 onwards): "Closed User Group (CUG) supplementary services; Stage 3".
- [46] 3GPP TS 04.86 (Ph2 to R98): "Advice of Charge (AoC) supplementary services; Stage 3".
3GPP TS 24.086 (R99 onwards): "Advice of Charge (AoC) supplementary service; Stage 3";".
- [47] 3GPP TS 04.88 (Ph2 to R98): "Call Barring (CB) supplementary services; Stage 3".
3GPP TS 24.088 (R99 onwards): "Call Barring (CB) supplementary service; Stage 3".
- [48] 3GPP TS 04.90 (Ph2 to R98): "Unstructured Supplementary Services Data (USSD)".
3GPP TS 24.090 (R99 onwards): "Unstructured Supplementary Service Data (USSD); Stage 3".
- [49] 3GPP TS 05.01 (Ph2 to R99): "Physical layer on the radio path (General description)".
GPP TS 45.001 (Rel-4 onwards): "Physical layer on the radio path (General description)".
- [50] 3GPP TS 05.02 (Ph2 to R99): "Multiplexing and multiple access on the radio path".
GPP TS 45.002 (Rel-4 onwards): "Multiplexing and multiple access on the radio path".
- [51] 3GPP TS 05.03 (Ph2 to R99): "Channel coding".
3GPP TS 45.003 (Rel-4 onwards): "Channel coding".
- [52] 3GPP TS 05.04 (Ph2 to R99): "Modulation".
3GPP TS 45.004 (Rel-4 onwards): "Modulation".
- [53] 3GPP TS 05.05 (Ph2 to R99): "Radio transmission and reception".
3GPP TS 45.005 (Rel-4 onwards): "Radio transmission and reception".
- [54] 3GPP TS 05.08 (Ph2 to R99): "Radio subsystem link control".
3GPP TS 45.008 (Rel-4 onwards): "Radio subsystem link control".
- [56] 3GPP TS 05.10 (Ph2 to R99): "Radio subsystem synchronisation".
3GPP TS 45.010 (Rel-4 onwards): "Radio subsystem synchronization".
- [57] 3GPP TS 05.09 (Ph2 to R99): "Link adaptation".
3GPP TS 45.009 (Rel-4 onwards): "Link adaptation".

- [58] 3GPP TS 07.01 (Ph2 to R98): "General on Terminal Adaptation Functions (TAF) for Mobile Stations (MS)".
3GPP TS 27.001 (R99 onwards): "General on Terminal Adaptation Functions (TAF) for Mobile Stations (MS)".
- [57] 3GPP TS 02.68 (R96 to R99): "Voice Group Call Service (VGCS); Stage 1".
3GPP TS 42.068 (Rel-4 onwards): "Voice Group Call Service (VGCS); Stage 1".
- [58] 3GPP TS 02.69 (R96 to R99): "Voice Broadcast Service (VBS); Stage 1".
3GPP TS 42.069 (Rel-4 onwards): "Voice Broadcast Service (VBS); Stage 1".
- [59] 3GPP TS 02.87 (R98): "User-to-User Signalling (UUS); Service description; Stage 1".
3GPP TS 22.087 (R99 onwards): "User-to-User Signalling (UUS); Service description, Stage 1".
- [60] 3GPP TS 22.094 (R99 onwards): "Follow Me service description; Stage 1".
- [61] 3GPP TS 03.68 (R96 to R99): "Voice Group Call Service (VGCS); Stage 2".
GPP TS 43.068 (Rel-4 onwards): "Voice Group Call Service (VGCS); Stage 2".
- [62] 3GPP TS 03.69 (R96 to R99): "Digital cellular telecommunications system (See Note 1); Voice Broadcast Service (VBS); Stage 2".
3GPP TS 43.069 (Rel-4 onwards): "Voice Broadcast Service (VBS); Stage 2".
- [63] 3GPP TS 03.87 (R98): "User-to-User Signalling (UUS); Stage 2".
3GPP TS 23.087 (R99 onwards): "User-to-User Signalling (UUS) supplementary service; Stage 2".
- [64] 3GPP TS 23.094 (R99 onwards): "Follow-Me (FM); Stage 2".
- [65] 3GPP TS 04.68 (R96 to R98): "Group Call Control (GCC) protocol".
3GPP TS 44.068 (Rel-4 onwards): "Group Call Control (GCC) protocol".
- [66] 3GPP TS 04.69 (R96 to R99): "Broadcast Call Control (BCC) protocol".
GPP TS 44.069 (Rel-4 onwards): "Broadcast Call Control (BCC) protocol".
- [67] 3GPP TS 04.87 (R98): "User-to-User Signalling (UUS) Supplementary Service; Stage 3".
3GPP TS 24.087: "User-to-User Signalling (UUS); Stage 3".
- [68] 3GPP TS 02.43 (R98 to R99): "Support of Localised Service Area (SoLSA); Service description; Stage 1".
- [69] Void
- [70] 3GPP TS 02.60 (R97 to R98): "General Packet Radio Service; Stage 1; Description".
3GPP TS 22.060 (R99 onwards): "General Packet Radio Service (GPRS); Service Description; Stage 1".
- [71] Void
- [72] 3GPP TS 02.67 (R96 to R98): "enhanced Multi-Level Precedence and Pre-emption service (eMLPP); Stage 1".
3GPP TS 22.067: "enhanced Multi-Level Precedence and Pre-emption service (eMLPP); Stage 1".
- [73] Void.
- [74] 3GPP TS 02.72 (R98): "Call Deflection Service description, Stage 1".

- 3GPP TS 22.072 (R99 onwards): "Call Deflection (CD); Stage 1".
- [75] Void.
- [76] Void.
- [77] 3GPP TS 02.91 (R96 to R98): "Explicit Call Transfer (ECT)".
3GPP TS 22.091 (R99 onwards): "Explicit Call Transfer (ECT)".
- [78] Void.
- [79] Void.
- [80] Void.
- [81] 3GPP TS 03.38 (Ph2 to R98): "Alphabets and language-specific information for GSM".
3GPP TS 23.038 (R99 onwards): "Alphabets and language-specific information".
- [82] Void.
- [83] Void.
- [84] Void.
- [85] 3GPP TS 03.73 (R98): "Support of Localised Service Area (SoLSA); Stage 2".
3GPP TS 23.073 (R99 onwards): "Support of Localised Service Area (SoLSA); Stage 2".
- [86] Void.
- [87] 3GPP TS 04.65 (R97 to R99): "General Packet Radio Service (GPRS); Mobile Station (MS) - Serving GPRS Support Node (SGSN); Subnetwork Dependent Convergence Protocol (SNDCCP)".
3GPP TS 44.065 (Rel-4 onwards): "General Packet Radio Service (GPRS); Mobile Station (MS) - Serving GPRS Support Node (SGSN); Subnetwork Dependent Convergence Protocol (SNDCCP)".
- [88] Void.
- [89] 3GPP TS 09.07 (Ph2 to R98): "General Requirements on Interworking between the Public Land Mobile Network (PLMN) and the Integrated Services Digital Network (ISDN) or Public Switched Telephone Network (PSTN)".
3GPP TS 29.007 (R99 onwards): "General requirements on Interworking between the Public Land Mobile Network (PLMN) and the Integrated Services Digital Network (ISDN) or Public Switched Telephone Network (PSTN)".
- [91] 3GPP TS 11.11 (Ph2 to R99): "Specification of the Subscriber Identity Module - Mobile Equipment (SIM - ME) interface".
3GPP TS 51.011 (Rel-4 onwards): "Specification of the Subscriber Identity Module - Mobile Equipment (SIM-ME) interface".
- [92] 3GPP TS 11.12 (Ph2): "Specification of the 3 Volt Subscriber Identity Module - Mobile Equipment (SIM - ME) interface".
- [93] 3GPP TS 11.14 (R96 to R99): "Specification of the SIM application toolkit for the Subscriber Identity Module – Mobile Equipment (SIM – ME) interface".
- [94] 3GPP TS 25.331 (R99 onwards): "Radio Resource Control (RRC) protocol specification".
- [95] 3GPP TS 04.18 (R99): "Mobile radio interface layer 3 specification, Radio Resource Control Protocol". (See note)
3GPP TS 44.018 (Rel-4 onwards): "Mobile radio interface layer 3 specification, Radio Resource Control Protocol". (See note).