

# ETSI TS 141 101 V5.13.0 (2008-01)

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*Technical Specification*

**Digital cellular telecommunications system (Phase 2+);  
Technical Specifications and Technical Reports  
for a GERAN-based 3GPP system  
(3GPP TS 41.101 version 5.13.0 Release 5)**

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Reference

RTS/TSGS-0041101v5d0

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Keywords

GSM

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## 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>.

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# 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:

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- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
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## 1 Scope

The present document identifies the 3GPP system specifications for Release 5. The specifications and reports of 3GPP Release 5 have a major version number 5 (i.e. 5.x.y). The listed Specifications are required to build a system based on GERAN radio technology.

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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 TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TR 21.900: "Technical Specification Group working methods".

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## 3 Abbreviations

For the purposes of the present document, the terms and definitions given in 3GPP TR 21.905 apply.

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## 4 General

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

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## 5 Specifications and Reports

NOTE 1: The "for publication?" column of the table below indicates whether or not the documents are intended for adoption by the partner Standards Development Organizations as their own publications. Those marked "no" are internal working documents of the 3GPP TSGs.

NOTE 2: For definition of "freezing" of specifications (last two columns), see 3GPP TS 21.900 [2].

| Number | Title   | WG prime | For publication? | freeze date | frozen |
|--------|---|----------|------------------|-------------|--------|
| 21.801 | Specification drafting rules  | SP       | No               | 2002-03-14  | yes    |
| 21.900 | Technical Specification Group working methods   | SP       | Yes              | 2002-03-14  | yes    |
| 21.905 | Vocabulary for 3GPP Specifications  | S1       | Yes              | 2002-03-14  | yes    |
| 22.001 | Principles of circuit telecommunication services supported by a Public Land Mobile Network (PLMN) | S1       | Yes              | 2002-06-13  | yes    |
| 22.002 | Circuit Bearer Services (BS) supported by a Public Land Mobile                                    | S1       | Yes              | 2002-       | yes    |

| Number | Title   | WG prime | For publication? | freeze date | frozen |
|--------|---|----------|------------------|-------------|--------|
|        | Network (PLMN)  |          |                  | 06-13       |        |
| 22.003 | Circuit Teleservices supported by a Public Land Mobile Network (PLMN)                           | S1       | Yes              | 2002-03-14  | yes    |
| 22.004 | General on supplementary services   | S1       | Yes              | 2002-06-13  | yes    |
| 22.011 | Service accessibility   | S1       | Yes              | 2002-06-13  | yes    |
| 22.016 | International Mobile Equipment Identities (IMEI)  | S1       | Yes              | 2002-06-13  | yes    |
| 22.022 | Personalisation of Mobile Equipment (ME); Mobile functionality specification                    | S3       | Yes              | 2002-09-12  | yes    |
| 22.024 | Description of Charge Advice Information (CAI)  | S1       | Yes              | 2002-06-13  | yes    |
| 22.030 | Man-Machine Interface (MMI) of the User Equipment (UE)  | S1       | Yes              | 2002-06-13  | yes    |
| 22.031 | Fraud Information Gathering System (FIGS); Service description; Stage 1                         | S3       | Yes              | 2002-12-12  | yes    |
| 22.032 | Immediate Service Termination (IST); Service description; Stage 1                               | S3       | Yes              | 2002-06-13  | yes    |
| 22.034 | High Speed Circuit Switched Data (HSCSD); Stage 1   | S1       | Yes              | 2002-06-13  | yes    |
| 22.038 | USIM Application Toolkit (USAT/SAT); Service description; Stage 1                               | S1       | Yes              | 2002-03-14  | yes    |
| 22.041 | Operator Determined Call Barring  | S1       | Yes              | 2002-06-13  | yes    |
| 22.042 | Network Identity and Time Zone (NITZ) service description; Stage 1                              | S1       | Yes              | 2002-06-13  | yes    |
| 22.048 | Security mechanisms for the (U)SIM application toolkit; Stage 1                                 | C6       | Yes              | 2003-06-06  | yes    |
| 22.053 | Tandem Free Operation (TFO); Service description; Stage 1                                       | S4       | Yes              | 2002-06-13  | yes    |
| 22.057 | Mobile Execution Environment (MExE) service description; Stage 1                                | S1       | Yes              | 2002-03-14  | yes    |
| 22.060 | General Packet Radio Service (GPRS); Service description; Stage 1                               | S1       | Yes              | 2002-03-14  | yes    |
| 22.066 | Support of Mobile Number Portability (MNP); Stage 1   | S1       | Yes              | 2002-06-13  | yes    |
| 22.067 | enhanced Multi-Level Precedence and Pre-emption service (eMLPP); Stage 1                        | S1       | Yes              | 2002-06-13  | yes    |
| 22.071 | Location Services (LCS); Service description; Stage 1   | S1       | Yes              | 2002-03-14  | yes    |
| 22.072 | Call Deflection (CD); Stage 1   | S1       | Yes              | 2002-06-13  | yes    |
| 22.076 | Noise suppression for the AMR codec; Service description; Stage 1                               | S4       | Yes              | 2002-06-13  | yes    |
| 22.078 | Customized Applications for Mobile network Enhanced Logic (CAMEL); Service description; Stage 1 | S1       | Yes              | 2002-03-14  | yes    |
| 22.079 | Support of optimal routing; Stage 1   | S1       | Yes              | 2002-06-13  | yes    |
| 22.081 | Line Identification supplementary services; Stage 1   | S1       | Yes              | 2002-06-13  | yes    |
| 22.082 | Call Forwarding (CF) Supplementary Services; Stage 1  | S1       | Yes              | 2002-06-13  | yes    |
| 22.083 | Call Waiting (CW) and Call Hold (HOLD) supplementary services; Stage 1                          | S1       | Yes              | 2002-06-13  | yes    |
| 22.084 | MultiParty (MPTY) supplementary service; Stage 1  | S1       | Yes              | 2002-06-13  | yes    |

| Number | Title  | WG prime | For publication? | freeze date | frozen |
|--------|--|----------|------------------|-------------|--------|
| 22.085 | Closed User Group (CUG) supplementary services; Stage 1  | S1       | Yes              | 2002-06-13  | yes    |
| 22.086 | Advice of Charge (AoC) supplementary services; Stage 1   | S1       | Yes              | 2002-06-13  | yes    |
| 22.087 | User-to-user signalling (UUS); Stage 1   | S1       | Yes              | 2002-06-13  | yes    |
| 22.088 | Call Barring (CB) supplementary services; Stage 1  | S1       | Yes              | 2002-06-13  | yes    |
| 22.090 | Unstructured Supplementary Service Data (USSD); Stage 1  | S1       | Yes              | 2002-06-13  | yes    |
| 22.091 | Explicit Call Transfer (ECT) supplementary service; Stage 1  | S1       | Yes              | 2002-06-13  | yes    |
| 22.093 | Completion of Calls to Busy Subscriber (CCBS); Service description, Stage 1                          | S1       | Yes              | 2002-06-13  | yes    |
| 22.094 | Follow Me service description - Stage 1  | S1       | Yes              | 2002-06-13  | yes    |
| 22.096 | Name identification supplementary services; Stage 1  | S1       | Yes              | 2002-06-13  | yes    |
| 22.097 | Multiple Subscriber Profile (MSP) Phase 2; Service description; Stage 1                              | S1       | Yes              | 2002-06-13  | yes    |
| 22.115 | Service aspects; Charging and billing  | S1       | Yes              | 2002-03-14  | yes    |
| 22.121 | Service aspects; The Virtual Home Environment (VHE); Stage 1   | S1       | Yes              | 2002-03-14  | yes    |
| 22.129 | Handover requirements between UTRAN and GERAN or other radio systems                                 | S1       | Yes              | 2002-03-14  | yes    |
| 22.140 | Multimedia Messaging Service (MMS); Stage 1  | S1       | Yes              | 2002-03-14  | yes    |
| 22.226 | Global text telephony (GTT); Stage 1: Service description  | S1       | Yes              | 2002-03-14  | yes    |
| 22.228 | Service requirements for the Internet Protocol (IP) multimedia core network subsystem (IMS); Stage 1 | S1       | Yes              | 2002-03-14  | yes    |
| 22.233 | Transparent end-to-end packet-switched streaming service; Stage 1                                    | S1       | Yes              | 2002-06-13  | yes    |
| 22.944 | Report on service requirements for UE functionality split  | S1       | Yes              | 2002-03-14  | yes    |
| 23.002 | Network architecture   | S2       | Yes              | 2002-03-14  | yes    |
| 23.003 | Numbering, addressing and identification   | C4       | Yes              | 2002-03-08  | yes    |
| 23.007 | Restoration procedures   | C4       | Yes              | 2002-03-08  | yes    |
| 23.008 | Organization of subscriber data  | C4       | Yes              | 2002-03-08  | yes    |
| 23.009 | Handover procedures  | C1       | Yes              | 2002-03-08  | yes    |
| 23.011 | Technical realization of Supplementary Services  | C4       | Yes              | 2002-03-08  | yes    |
| 23.012 | Location management procedures   | C4       | Yes              | 2002-03-08  | yes    |
| 23.014 | Support of Dual Tone Multi Frequency (DTMF) signalling   | C1       | Yes              | 2002-03-08  | yes    |
| 23.015 | Technical realization of Operator Determined Barring (ODB)   | C4       | Yes              | 2002-03-08  | yes    |
| 23.016 | Subscriber data management; Stage 2  | C4       | Yes              | 2002-03-08  | yes    |
| 23.018 | Basic Call Handling; Technical realization   | C4       | Yes              | 2002-03-08  | yes    |



| Number | Title  | WG prime | For publication? | freeze date | frozen |
|--------|--|----------|------------------|-------------|--------|
| 23.031 | Fraud Information Gathering System (FIGS); Service description; Stage 2  | S3       | Yes              | 2002-12-12  | yes    |
| 23.032 | Universal Geographical Area Description (GAD)  | S2       | Yes              | 2003-03-20  | yes    |
| 23.034 | High Speed Circuit Switched Data (HSCSD); Stage 2  | C1       | Yes              | 2002-03-08  | yes    |
| 23.035 | Immediate Service Termination (IST); Stage 2   | S3       | Yes              | 2002-06-13  | yes    |
| 23.038 | Alphabets and language-specific information  | C1       | Yes              | 2002-03-08  | yes    |
| 23.039 | Interface Protocols for the Connection of Short Message Service Centers (SMSCs) to Short Message Entities (SMEs) | C1       | Yes              | 2002-03-08  | yes    |
| 23.040 | Technical realization of Short Message Service (SMS)   | C1       | Yes              | 2002-03-08  | yes    |
| 23.041 | Technical realization of Cell Broadcast Service (CBS)  | C1       | Yes              | 2002-06-07  | yes    |
| 23.042 | Compression algorithm for SMS  | C1       | Yes              | 2002-03-08  | yes    |
| 23.048 | Security mechanisms for the (U)SIM application toolkit; Stage 2  | C6       | Yes              | 2002-03-08  | yes    |
| 23.053 | Tandem Free Operation (TFO); Service description; Stage 2  | S4       | Yes              | 2002-06-13  | yes    |
| 23.057 | Mobile Execution Environment (MEExE); Functional description; Stage 2  | S2       | Yes              | 2002-03-08  | yes    |
| 23.060 | General Packet Radio Service (GPRS); Service description; Stage 2  | S2       | Yes              | 2002-03-14  | yes    |
| 23.066 | Support of GSM Mobile Number Portability (MNP) stage 2   | C4       | Yes              | 2002-03-08  | yes    |
| 23.067 | Enhanced Multi-Level Precedence and Pre-emption Service (eMLPP); Stage 2   | C4       | Yes              | 2002-03-08  | yes    |
| 23.072 | Call Deflection Supplementary Service; Stage 2   | C4       | Yes              | 2002-03-08  | yes    |
| 23.078 | Customized Applications for Mobile network Enhanced Logic (CAMEL) Phase X; Stage 2                               | C4       | Yes              | 2002-06-07  | yes    |
| 23.079 | Support of Optimal Routeing (SOR); Technical realization   | C4       | Yes              | 2002-03-08  | yes    |
| 23.081 | Line Identification supplementary services; Stage 2  | C4       | Yes              | 2002-03-08  | yes    |
| 23.082 | Call Forwarding (CF) Supplementary Services; Stage 2   | C4       | Yes              | 2002-03-08  | yes    |
| 23.083 | Call Waiting (CW) and Call Hold (HOLD) Supplementary Service; Stage 2  | C4       | Yes              | 2002-03-08  | yes    |
| 23.084 | MultiParty (MPTY) Supplementary Service; Stage 2   | C4       | Yes              | 2002-03-08  | yes    |
| 23.085 | Closed User Group (CUG) Supplementary Service; Stage 2   | C4       | Yes              | 2002-03-08  | yes    |
| 23.086 | Advice of Charge (AoC) Supplementary Service; Stage 2  | C4       | Yes              | 2002-03-08  | yes    |
| 23.087 | User-to-User Signalling (UUS) supplementary service; Stage 2   | C4       | Yes              | 2002-03-08  | yes    |
| 23.088 | Call Barring (CB) Supplementary Service; Stage 2   | C4       | Yes              | 2002-03-08  | yes    |
| 23.090 | Unstructured Supplementary Service Data (USSD); Stage 2  | C4       | Yes              | 2002-03-08  | yes    |
| 23.091 | Explicit Call Transfer (ECT) Supplementary Service; Stage 2  | C4       | Yes              | 2002-03-08  | yes    |
| 23.093 | Technical realization of Completion of Calls to Busy Subscriber (CCBS); Stage 2                                  | C4       | Yes              | 2002-03-08  | yes    |

| Number | Title  | WG prime | For publication? | freeze date | frozen |
|--------|--|----------|------------------|-------------|--------|
| 23.094 | Follow Me Stage 2  | C4       | Yes              | 2002-03-08  | yes    |
| 23.096 | Name Identification Supplementary Service; Stage 2   | C4       | Yes              | 2002-03-08  | yes    |
| 23.097 | Multiple Subscriber Profile (MSP) Phase 1; Stage 2   | C4       | Yes              | 2002-03-08  | yes    |
| 23.107 | Quality of Service (QoS) concept and architecture  | S2       | Yes              | 2002-03-14  | yes    |
| 23.108 | Mobile radio interface layer 3 specification core network protocols; Stage 2 (structured procedures)   | C1       | Yes              | 2002-06-07  | yes    |
| 23.110 | UMTS Access Stratum Services and Functions   | S2       | Yes              | 2003-12-18  | yes    |
| 23.116 | Super-Charger technical realization; Stage 2   | C4       | Yes              | 2002-03-08  | yes    |
| 23.119 | Gateway Location Register (GLR); Stage2  | C4       | Yes              | 2002-03-08  | yes    |
| 23.122 | Non-Access-Stratum (NAS) functions related to Mobile Station (MS) in idle mode                         | C1       | Yes              | 2002-03-08  | yes    |
| 23.140 | Multimedia Messaging Service (MMS); Functional description; Stage 2                                    | CP       | Yes              | 2002-03-08  | yes    |
| 23.195 | Provision of User Equipment Specific Behaviour Information (UESBI) to network entities                 | S2       | Yes              | 2003-06-12  | yes    |
| 23.207 | End-to-end Quality of Service (QoS) concept and architecture   | S2       | Yes              | 2002-03-14  | yes    |
| 23.218 | IP Multimedia (IM) session handling; IM call model; Stage 2  | C1       | Yes              | 2002-03-08  | yes    |
| 23.221 | Architectural requirements   | S2       | Yes              | 2002-03-14  | yes    |
| 23.226 | Global text telephony (GTT); Stage 2: Architecture   | S2       | Yes              | 2002-03-08  | yes    |
| 23.228 | IP Multimedia Subsystem (IMS); Stage 2   | S2       | Yes              | 2002-03-14  | yes    |
| 23.236 | Intra-domain connection of Radio Access Network (RAN) nodes to multiple Core Network (CN) nodes        | S2       | Yes              | 2002-03-14  | yes    |
| 23.271 | Functional stage 2 description of Location Services (LCS)  | S2       | Yes              | 2002-03-14  | yes    |
| 23.278 | Customised Applications for Mobile network Enhanced Logic (CAMEL) Phase 4; Stage 2; IM CN Interworking | C4       | Yes              | 2002-12-06  | yes    |
| 23.815 | Charging implications of IMS architecture  | S2       | No               | 2002-03-14  | yes    |
| 24.002 | GSM-UMTS Public Land Mobile Network (PLMN) Access Reference Configuration                              | C1       | Yes              | 2002-03-08  | yes    |
| 24.007 | Mobile radio interface signalling layer 3; General Aspects   | C1       | Yes              | 2002-03-08  | yes    |
| 24.008 | Mobile radio interface Layer 3 specification; Core network protocols; Stage 3                          | C1       | Yes              | 2002-03-08  | yes    |
| 24.010 | Mobile Radio Interface Layer 3 - Supplementary Services Specification - General Aspects                | C4       | Yes              | 2002-03-08  | yes    |
| 24.011 | Point-to-Point (PP) Short Message Service (SMS) support on mobile radio interface                      | C1       | Yes              | 2002-03-08  | yes    |
| 24.022 | Radio Link Protocol (RLP) for circuit switched bearer and teleservices                                 | C3       | Yes              | 2002-03-08  | yes    |
| 24.030 | Location Services (LCS); Supplementary service operations; Stage 3                                     | C4       | Yes              | 2002-03-08  | yes    |
| 24.067 | Enhanced Multi-Level Precedence and Pre-emption service (eMLPP); Stage 3                               | C4       | Yes              | 2002-03-08  | yes    |
| 24.072 | Call Deflection Supplementary Service; Stage 3   | C4       | Yes              | 2002-03-08  | yes    |

| Number | Title  | WG prime | For publication? | freeze date | frozen |
|--------|--|----------|------------------|-------------|--------|
| 24.080 | Mobile radio Layer 3 supplementary service specification; Formats and coding   | C4       | Yes              | 2002-03-08  | yes    |
| 24.081 | Line Identification Supplementary Service; Stage 3   | C4       | Yes              | 2002-03-08  | yes    |
| 24.082 | Call Forwarding supplementary service; Stage 3   | C4       | Yes              | 2002-03-08  | yes    |
| 24.083 | Call Waiting (CW) and Call Hold (HOLD) Supplementary Service; Stage 3  | C4       | Yes              | 2002-03-08  | yes    |
| 24.084 | MultiParty (MPTY) Supplementary Service; Stage 3   | C4       | Yes              | 2002-03-08  | yes    |
| 24.085 | Closed User Group (CUG) Supplementary Service; Stage 3   | C4       | Yes              | 2002-03-08  | yes    |
| 24.086 | Advice of Charge (AoC) Supplementary Service; Stage 3  | C4       | Yes              | 2002-03-08  | yes    |
| 24.087 | User-to-User Signalling (UUS); Stage 3   | C4       | Yes              | 2002-03-08  | yes    |
| 24.088 | Call Barring (CB) Supplementary Service; Stage 3   | C4       | Yes              | 2002-03-08  | yes    |
| 24.090 | Unstructured Supplementary Service Data (USSD); Stage 3  | C4       | Yes              | 2002-03-08  | yes    |
| 24.091 | Explicit Call Transfer (ECT) Supplementary Service; Stage 3  | C4       | Yes              | 2002-03-08  | yes    |
| 24.093 | Call Completion to Busy Subscriber (CCBS); Stage 3   | C4       | Yes              | 2002-03-08  | yes    |
| 24.096 | Name Identification Supplementary Service; Stage 3   | C4       | Yes              | 2002-03-08  | yes    |
| 24.228 | Signalling flows for the IP multimedia call control based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); Stage 3     | C1       | Yes              | 2002-06-07  | yes    |
| 24.229 | Internet Protocol (IP) multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); Stage 3 | C1       | Yes              | 2002-06-07  | yes    |
| 26.071 | AMR speech Codec; General description  | S4       | Yes              | 2002-06-13  | yes    |
| 26.073 | AMR speech Codec; C-source code  | S4       | Yes              | 2002-06-13  | yes    |
| 26.074 | AMR speech Codec; Test sequences   | S4       | Yes              | 2002-06-13  | yes    |
| 26.077 | Minimum performance requirements for noise suppresser application to the Adaptive Multi-Rate (AMR) speech encoder                                  | S4       | Yes              | 2002-06-13  | yes    |
| 26.090 | AMR speech Codec; Transcoding Functions  | S4       | Yes              | 2002-06-13  | yes    |
| 26.091 | AMR speech Codec; Error concealment of lost frames   | S4       | Yes              | 2002-06-13  | yes    |
| 26.092 | AMR speech Codec; comfort noise for AMR Speech Traffic Channels  | S4       | Yes              | 2002-06-13  | yes    |
| 26.093 | Mandatory speech codec speech processing functions Adaptive Multi-Rate (AMR) speech codec; Source controlled rate operation                        | S4       | Yes              | 2002-06-13  | yes    |
| 26.094 | Mandatory speech codec speech processing functions; Adaptive Multi-Rate (AMR) speech codec; Voice Activity Detector (VAD)                          | S4       | Yes              | 2002-06-13  | yes    |
| 26.101 | Mandatory speech codec speech processing functions; Adaptive Multi-Rate (AMR) speech codec frame structure   | S4       | Yes              | 2002-06-13  | yes    |
| 26.102 | Mandatory speech codec; Adaptive Multi-Rate (AMR) speech codec; Interface to lu, Uu and Nb   | S4       | Yes              | 2002-06-13  | yes    |
| 26.103 | Speech codec list for GSM and UMTS   | S4       | Yes              | 2002-03-14  | yes    |
| 26.104 | ANSI-C code for the floating-point Adaptive Multi-Rate (AMR) speech codec  | S4       | Yes              | 2002-06-13  | yes    |

| Number | Title  | WG prime | For publication? | freeze date | frozen |
|--------|--|----------|------------------|-------------|--------|
| 26.110 | Codec for circuit switched multimedia telephony service; General description   | S4       | Yes              | 2002-06-13  | yes    |
| 26.111 | Codec for Circuit switched Multimedia Telephony Service; Modifications to H.324  | S4       | Yes              | 2002-06-13  | yes    |
| 26.140 | Multimedia Messaging Service (MMS); Media formats and codes  | S4       | Yes              | 2002-03-14  | yes    |
| 26.171 | Speech codec speech processing functions; Adaptive Multi-Rate - Wideband (AMR-WB) speech codec; General description                                      | S4       | Yes              | 2002-03-14  | yes    |
| 26.173 | ANSI-C code for the Adaptive Multi-Rate - Wideband (AMR-WB) speech codec   | S4       | Yes              | 2002-03-14  | yes    |
| 26.174 | Speech codec speech processing functions; Adaptive Multi-Rate - Wideband (AMR-WB) speech codec test sequences  | S4       | Yes              | 2002-03-14  | yes    |
| 26.190 | Speech codec speech processing functions; Adaptive Multi-Rate - Wideband (AMR-WB) speech codec; Transcoding functions                                    | S4       | Yes              | 2002-03-14  | yes    |
| 26.191 | Speech codec speech processing functions; Adaptive Multi-Rate - Wideband (AMR-WB) speech codec; Error concealment of erroneous or lost frames            | S4       | Yes              | 2002-03-14  | yes    |
| 26.192 | Speech codec speech processing functions; Adaptive Multi-Rate - Wideband (AMR-WB) speech codec; Comfort noise aspects                                    | S4       | Yes              | 2002-03-14  | yes    |
| 26.193 | Speech codec speech processing functions; Adaptive Multi-Rate - Wideband (AMR-WB) speech codec; Source controlled rate operation                         | S4       | Yes              | 2002-03-14  | yes    |
| 26.194 | Speech codec speech processing functions; Adaptive Multi-Rate - Wideband (AMR-WB) speech codec; Voice Activity Detector (VAD)                            | S4       | Yes              | 2002-03-14  | yes    |
| 26.201 | Speech codec speech processing functions; Adaptive Multi-Rate - Wideband (AMR-WB) speech codec; Frame structure  | S4       | Yes              | 2002-03-14  | yes    |
| 26.202 | Speech codec speech processing functions; Adaptive Multi-Rate - Wideband (AMR-WB) speech codec; Interface to lu, Uu and Nb                               | S4       | Yes              | 2002-03-14  | yes    |
| 26.204 | Speech codec speech processing functions; Adaptive Multi-Rate - Wideband (AMR-WB) speech codec; ANSI-C code  | S4       | Yes              | 2002-03-14  | yes    |
| 26.226 | Cellular text telephone modem; General description   | S4       | Yes              | 2002-03-14  | yes    |
| 26.230 | Cellular text telephone modem; Transmitter bit exact C-code  | S4       | Yes              | 2002-03-14  | yes    |
| 26.231 | Cellular text telephone modem; Minimum performance requirements  | S4       | Yes              | 2002-03-14  | yes    |
| 26.235 | Packet switched conversational multimedia applications; Default codecs   | S4       | Yes              | 2002-03-14  | yes    |
| 26.911 | Codec for Circuit switched Multimedia Telephony Service; Terminal Implementor's Guide  | S4       | Yes              | 2002-06-13  | yes    |
| 26.975 | Performance characterization of the Adaptive Multi-Rate (AMR) speech codec   | S4       | Yes              | 2002-06-13  | yes    |
| 26.976 | Performance characterization of the Adaptive Multi-Rate Wideband (AMR-WB) speech codec   | S4       | Yes              | 2002-06-07  | yes    |
| 27.001 | General on Terminal Adaptation Functions (TAF) for Mobile Stations (MS)  | C3       | Yes              | 2002-03-08  | yes    |
| 27.002 | Terminal Adaptation Functions (TAF) for services using Asynchronous bearer capabilities  | C3       | Yes              | 2002-03-08  | yes    |
| 27.003 | Terminal Adaptation Functions (TAF) for services using Synchronous bearer capabilities   | C3       | Yes              | 2002-03-08  | yes    |
| 27.005 | Use of Data Terminal Equipment - Data Circuit terminating Equipment (DTE-DCE) interface for Short Message Service (SMS) and Cell Broadcast Service (CBS) | C1       | Yes              | 2002-03-08  | yes    |
| 27.007 | AT command set for User Equipment (UE)   | C1       | Yes              | 2002-03-08  | yes    |
| 27.010 | Terminal Equipment to User Equipment (TE-UE) multiplexer protocol  | C3       | Yes              | 2002-03-08  | yes    |
| 27.060 | Packet domain; Mobile Station (MS) supporting Packet Switched services   | C3       | Yes              | 2002-03-08  | yes    |

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| 27.103      | Wide Area Network Synchronization   | C1       | Yes              | 2002-03-08  | yes    |
| 28.062      | Inband Tandem Free Operation (TFO) of speech codecs; Service description; Stage 3   | S4       | Yes              | 2002-03-14  | yes    |
| 29.002      | Mobile Application Part (MAP) specification   | C4       | Yes              | 2002-03-08  | yes    |
| 29.007      | General requirements on interworking between the Public Land Mobile Network (PLMN) and the Integrated Services Digital Network (ISDN) or Public Switched Telephone Network (PSTN)                                       | C3       | Yes              | 2002-03-08  | yes    |
| 29.010      | Information element mapping between Mobile Station - Base Station System (MS - BSS) and Base Station System - Mobile-services Switching Centre (BSS - MSC); Signalling Procedures and the Mobile Application Part (MAP) | C4       | Yes              | 2002-03-08  | yes    |
| 29.011      | Signalling Interworking for Supplementary Services  | C4       | Yes              | 2002-03-08  | yes    |
| 29.013      | Signalling interworking between ISDN supplementary services Application Service Element (ASE) and Mobile Application Part (MAP) protocols   | C4       | Yes              | 2002-03-08  | yes    |
| 29.016      | Serving GPRS Support Node SGSN - Visitors Location Register (VLR); Gs Interface Network Service Specification   | C1       | Yes              | 2002-03-08  | yes    |
| 29.018      | General Packet Radio Service (GPRS); Serving GPRS Support Node (SGSN) - Visitors Location Register (VLR); Gs interface layer 3 specification  | C1       | Yes              | 2002-03-08  | yes    |
| 29.060      | General Packet Radio Service (GPRS); GPRS Tunnelling Protocol (GTP) across the Gn and Gp interface  | C4       | Yes              | 2002-03-08  | yes    |
| 29.061      | Interworking between the Public Land Mobile Network (PLMN) supporting packet based services and Packet Data Networks (PDN)  | C3       | Yes              | 2002-09-06  | yes    |
| 29.078      | Customized Applications for Mobile network Enhanced Logic (CAMEL) Phase X; CAMEL Application Part (CAP) specification   | C4       | Yes              | 2002-06-07  | yes    |
| 29.207      | Policy control over Gs interface  | C3       | Yes              | 2002-06-07  | yes    |
| 29.208      | End-to-end Quality of Service (QoS) signalling flows  | C3       | Yes              | 2002-06-07  | yes    |
| 29.228      | IP Multimedia (IM) Subsystem Cx and Dx Interfaces; Signalling flows and message contents  | C4       | Yes              | 2002-06-07  | yes    |
| 29.229      | Cx and Dx interfaces based on the Diameter protocol; Protocol details   | C4       | Yes              | 2002-06-07  | yes    |
| 29.278      | customized Applications for Mobile network Enhanced Logic (CAMEL); CAMEL Application Part (CAP) specification for IP Multimedia Subsystems (IMS)  | C4       | Yes              | 2002-12-06  | yes    |
| 29.328      | IP Multimedia Subsystem (IMS) Sh interface; Signalling flows and message contents   | C4       | Yes              | 2002-06-07  | yes    |
| 29.329      | Sh interface based on the Diameter protocol; Protocol details   | C4       | Yes              | 2002-06-07  | yes    |
| 29.994      | Recommended infrastructure measures to overcome specific Mobile Station (MS) and User Equipment (UE) faults   | C1       | Yes              | 2002-03-14  | yes    |
| 29.998-04-1 | Open Service Access (OSA) Application Programming Interface (API) Mapping for Open Service Access; Part 4: Call Control Service Mapping; Subpart 1: API to CAP Mapping  | C5       | Yes              | 2002-03-08  | yes    |
| 29.998-08   | Open Service Access (OSA) Application Programming Interface (API) Mapping for Open Service Access; Part 8: Data Session Control Service Mapping to CAP  | C5       | Yes              | 2002-03-08  | yes    |
| 30.902      | Guidelines for the modification of the Mobile Application Part (MAP) in Phase 2+  | C4       | No               | 2003-03-14  | yes    |
| 31.048      | Security mechanisms for the (U)SIM application toolkit; Test specification  | C6       | Yes              | 2003-09-19  | yes    |
| 31.103      | Characteristics of the IP Multimedia Services Identity Module (ISIM) application  | C6       | Yes              | 2002-06-07  | yes    |
| 31.111      | Universal Subscriber Identity Module (USIM) Application Toolkit   | C6       | Yes              | 2002-       | yes    |

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|          | (USAT)   |          |                  | 03-08       |        |
| 32.101   | Telecommunication management; Principles and high level requirements   | S5       | Yes              | 2002-03-14  | yes    |
| 32.102   | Telecommunication management; Architecture   | S5       | Yes              | 2002-03-14  | yes    |
| 32.111-1 | Telecommunication management; Fault Management; Part 1: 3G fault management requirements   | S5       | Yes              | 2002-03-14  | yes    |
| 32.111-2 | Telecommunication management; Fault Management; Part 2: Alarm Integration Reference Point (IRP): Information Service (IS)  | S5       | Yes              | 2002-03-14  | yes    |
| 32.111-3 | Telecommunication management; Fault Management; Part 3: Alarm Integration Reference Point (IRP): Common Object Request Broker Architecture (CORBA) Solution Set (SS)             | S5       | Yes              | 2002-03-14  | yes    |
| 32.111-4 | Telecommunication management; Fault Management; Part 4: Alarm Integration Reference Point (IRP): Common Management Information Protocol (CMIP) Solution Set (SS)                 | S5       | Yes              | 2002-03-14  | yes    |
| 32.200   | Telecommunication management; Charging management; Charging principles   | S5       | Yes              | 2002-09-12  | yes    |
| 32.205   | Telecommunication management; Charging management; Charging data description for the Circuit Switched (CS) domain  | S5       | Yes              | 2002-03-14  | yes    |
| 32.215   | Telecommunication management; Charging management; Charging data description for the Packet Switched (PS) domain   | S5       | Yes              | 2002-03-14  | yes    |
| 32.225   | Telecommunication management; Charging management; Charging data description for the IP Multimedia Subsystem (IMS)   | S5       | Yes              | 2002-09-12  | yes    |
| 32.235   | Telecommunication management; Charging management; Charging data description for application services  | S5       | Yes              | 2002-09-12  | yes    |
| 32.300   | Telecommunication management; Configuration Management (CM); Name convention for Managed Objects   | S5       | Yes              | 2002-09-12  | yes    |
| 32.301   | Telecommunication management; Configuration Management (CM); Notification Integration Reference Point (IRP): Requirements  | S5       | Yes              | 2002-03-14  | yes    |
| 32.302   | Telecommunication management; Configuration Management (CM); Notification Integration Reference Point (IRP): Information Service (IS)  | S5       | Yes              | 2002-03-14  | yes    |
| 32.303   | Telecommunication management; Configuration Management (CM); Notification Integration Reference Point (IRP): Common Object Request Broker Architecture (CORBA) Solution Set (SS) | S5       | Yes              | 2002-03-14  | yes    |
| 32.304   | Telecommunication management; Configuration Management (CM); Notification Integration Reference Point (IRP): Common Management Information Protocol (CMIP) Solution Set (SS)     | S5       | Yes              | 2002-03-14  | yes    |
| 32.311   | Telecommunication management; Generic Integration Reference Point (IRP) management; Requirements   | S5       | Yes              | 2002-03-14  | yes    |
| 32.312   | Telecommunication management; Generic Integration Reference Point (IRP) management; Information Service (IS)   | S5       | Yes              | 2002-03-14  | yes    |
| 32.321   | Telecommunication management; Test management Integration Reference Point (IRP): Requirements  | S5       | Yes              | 2002-03-14  | yes    |
| 32.322   | Telecommunication management; Test management Integration Reference Point (IRP): Information Service (IS)  | S5       | Yes              | 2002-09-12  | yes    |
| 32.323   | Telecommunication management; Test management Integration Reference Point (IRP): Common Object Request Broker Architecture (CORBA) Solution Set (SS)                             | S5       | Yes              | 2002-09-12  | yes    |
| 32.324   | Telecommunication management; Test management Integration Reference Point (IRP): Common Management Information Protocol (CMIP) Solution Set (SS)                                 | S5       | Yes              | 2002-09-12  | yes    |
| 32.401   | Telecommunication management; Performance Management (PM); Concept and requirements  | S5       | Yes              | 2002-03-14  | yes    |
| 32.403   | Telecommunication management; Performance Management (PM); Performance measurements - UMTS and combined UMTS/GSM   | S5       | Yes              | 2002-03-14  | yes    |
| 32.600   | Telecommunication management; Configuration Management (CM); Concept and high-level requirements   | S5       | Yes              | 2002-09-12  | yes    |
| 32.601   | Telecommunication management; Configuration Management (CM);   | S5       | Yes              | 2002-       | yes    |

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|        | Basic CM Integration Reference Point (IRP); Requirements  |          |                  | 09-12       |        |
| 32.602 | Telecommunication management; Configuration Management (CM); Basic CM Integration Reference Point (IRP): Information Service (IS)   | S5       | Yes              | 2002-09-12  | yes    |
| 32.603 | Telecommunication management; Configuration Management (CM); Basic CM Integration Reference Point (IRP): Common Object Request Broker Architecture (CORBA) Solution Set (SS)                  | S5       | Yes              | 2002-09-12  | yes    |
| 32.604 | Telecommunication management; Configuration Management (CM); Basic CM Integration Reference Point (IRP) Common Management Information Protocol (CMIP) Solution Set (SS)                       | S5       | Yes              | 2002-09-12  | yes    |
| 32.611 | Telecommunication management; Configuration Management (CM); Bulk CM Integration Reference Point (IRP): Requirements  | S5       | Yes              | 2002-06-13  | yes    |
| 32.612 | Telecommunication management; Configuration Management (CM); Bulk CM Integration Reference Point (IRP): Information Service (IS)  | S5       | Yes              | 2002-09-12  | yes    |
| 32.613 | Telecommunication management; Configuration Management (CM); Bulk CM Integration Reference Point (IRP): Common Object Request Broker Architecture (CORBA) Solution Set (SS)                   | S5       | Yes              | 2002-09-12  | yes    |
| 32.614 | Telecommunication management; Configuration Management (CM); Bulk CM Integration Reference Point (IRP): Common Management Information Protocol (CMIP) Solution Set (SS)                       | S5       | Yes              | 2002-09-12  | yes    |
| 32.615 | Telecommunication management; Configuration Management (CM); Bulk CM Integration Reference Point (IRP): eXtensible Markup Language (XML) file format definition                               | S5       | Yes              | 2002-06-13  | yes    |
| 32.621 | Telecommunication management; Configuration Management (CM); Generic network resources Integration Reference Point (IRP); Requirements  | S5       | Yes              | 2002-09-12  | yes    |
| 32.622 | Telecommunication management; Configuration Management (CM); Generic network resources Integration Reference Point (IRP): Network Resource Model (NRM)  | S5       | Yes              | 2002-09-12  | yes    |
| 32.623 | Telecommunication management; Configuration Management (CM); Generic network resources Integration Reference Point (IRP): Common Object Request Broker Architecture (CORBA) Solution Set (SS) | S5       | Yes              | 2002-09-12  | yes    |
| 32.624 | Telecommunication management; Configuration Management (CM); Generic network resources: Integration Reference Point (IRP): Common Management Information Protocol (CMIP) Solution Set (SS)    | S5       | Yes              | 2002-09-12  | yes    |
| 32.625 | Telecommunication management; Configuration Management (CM); Generic network resources Integration Reference Point (IRP): Bulk CM eXtensible Markup Language (XML) file format definition     | S5       | Yes              | 2002-03-14  | yes    |
| 32.631 | Telecommunication management; Configuration Management (CM); Core network resources Integration Reference Point (IRP): Requirements   | S5       | Yes              | 2002-06-13  | yes    |
| 32.632 | Telecommunication management; Configuration Management (CM); Core Network Resources Integration Reference Point (IRP): Network Resource Model (NRM)   | S5       | Yes              | 2002-09-12  | yes    |
| 32.633 | Telecommunication management; Configuration Management (CM); Core network resources Integration Reference Point (IRP): Common Object Request Broker Architecture (CORBA) Solution Set (SS)    | S5       | Yes              | 2002-09-12  | yes    |
| 32.634 | Telecommunication management; Configuration Management (CM); Core network resources Integration Reference Point (IRP): Common Management Information Protocol (CMIP) Solution Set (SS)        | S5       | Yes              | 2002-09-12  | yes    |
| 32.635 | Telecommunication management; Configuration Management (CM); Core network resources Integration Reference Point (IRP): Bulk CM eXtensible Markup Language (XML) file format definition        | S5       | Yes              | 2002-06-13  | yes    |
| 32.651 | Telecommunication management; Configuration Management (CM); GERAN network resources Integration Reference Point (IRP): Requirements  | S5       | Yes              | 2002-09-12  | yes    |
| 32.652 | Telecommunication management; Configuration Management (CM); GERAN network resources Integration Reference Point (IRP): Network Resource Model (NRM)  | S5       | Yes              | 2002-09-12  | yes    |
| 32.653 | Telecommunication management; Configuration Management (CM);  | S5       | Yes              | 2002-       | yes    |

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|        | GERAN network resources Integration Reference Point (IRP): Common Object Request Broker Architecture (CORBA) Solution Set (SS)  |          |                  | 09-12       |        |
| 32.654 | Telecommunication management; Configuration Management (CM); GERAN network resources Integration Reference Point (IRP): Common Management Information Protocol (CMIP) Solution Set (SS) | S5       | Yes              | 2002-09-12  | yes    |
| 32.655 | Telecommunication management; Configuration Management (CM); GERAN network resources Integration Reference Point (IRP): Bulk CM eXtensible Markup Language (XML) file format definition | S5       | Yes              | 2002-06-13  | yes    |
| 32.661 | Telecommunication management; Configuration Management (CM); Kernel CM; Requirements  | S5       | Yes              | 2002-09-12  | yes    |
| 32.662 | Telecommunication management; Configuration Management (CM); Kernel CM; Information service (IS)  | S5       | Yes              | 2002-12-12  | yes    |
| 32.663 | Telecommunication management; Configuration Management (CM); Kernel CM Integration Reference Point (IRP): Common Object Request Broker Architecture (CORBA) Solution Set (SS)           | S5       | Yes              | 2002-09-12  | yes    |
| 32.664 | Telecommunication management; Configuration Management (CM); Kernel CM Integration Reference Point (IRP): Common Management Information Protocol (CMIP) Solution Set (SS)               | S5       | Yes              | 2002-12-12  | yes    |
| 32.671 | Telecommunication management; Configuration Management (CM); State Management Integration Reference Point (IRP): Requirements   | S5       | Yes              | 2002-03-14  | yes    |
| 32.672 | Telecommunication management; Configuration Management (CM); State Management Integration Reference Point (IRP): Information Service (IS)   | S5       | Yes              | 2002-03-14  | yes    |
| 32.673 | Telecommunication management; Configuration Management (CM); State Management Integration Reference Point (IRP): Common Object Request Broker Architecture (CORBA) Solution Set (SS)    | S5       | Yes              | 2002-03-14  | yes    |
| 32.674 | Telecommunication management; Configuration Management (CM); State Management Integration Reference Point (IRP): Common Management Information Protocol (CMIP) Solution Set (SS)        | S5       | Yes              | 2002-03-14  | yes    |
| 32.691 | Telecommunication management; Inventory Management (IM) network resources Integration Reference Point (IRP): Requirements   | S5       | Yes              | 2002-09-12  | yes    |
| 32.692 | Telecommunication management; Inventory Management (IM) network resources Integration Reference Point (IRP): Network Resource Model (NRM)   | S5       | Yes              | 2002-09-12  | yes    |
| 32.800 | Telecommunication management; Management level procedures and interaction with UTRAN  | S5       | No               | 2002-03-14  | yes    |
| 32.802 | Telecommunication management; User Equipment Management (UEM) feasibility study   | S5       | No               | 2002-06-13  | yes    |
| 33.203 | 3G security; Access security for IP-based services  | S3       | Yes              | 2002-03-14  | yes    |
| 33.210 | 3G security; Network Domain Security (NDS); IP network layer security   | S3       | Yes              | 2002-03-14  | yes    |
| 34.902 | Derivation of test tolerances for multi-cell Radio Resource Model (RRM) conformance tests   | R5       | Yes              | 2003-12-12  | yes    |
| 41.031 | Fraud Information Gathering System (FIGS); Service requirements; Stage 0  | S3       | Yes              | 2002-03-14  | yes    |
| 41.033 | Lawful Interception requirements for GSM  | S3       | Yes              | 2002-03-14  | yes    |
| 41.101 | Technical Specifications and Technical Reports for a GERAN-based 3GPP system  | SP       | Yes              | 2003-06-12  | yes    |
| 42.019 | Subscriber Identity Module Application Programming Interface (SIM API); Stage 1   | C6       | Yes              | 2002-03-08  | yes    |
| 42.033 | Lawful Interception; Stage 1  | S3       | Yes              | 2002-03-14  | yes    |
| 42.043 | Support of Localised Service Area (SoLSA); Service description; Stage 1   | S1       | Yes              | 2002-06-13  | yes    |
| 42.056 | GSM Cordless Telephony System (CTS), Phase 1; Service description; Stage 1  | S1       | Yes              | 2002-06-13  | yes    |



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| 42.068 | Voice Group Call Service (VGCS); Stage 1  | S1       | Yes              | 2002-06-13  | yes    |
| 42.069 | Voice Broadcast Service (VBS); Stage 1  | S1       | Yes              | 2002-06-13  | yes    |
| 43.005 | Technical performance objectives  | CP       | Yes              | 2002-03-08  | yes    |
| 43.010 | GSM Public Land Mobile Network (PLMN) connection types  | C3       | Yes              | 2002-03-08  | yes    |
| 43.013 | Discontinuous Reception (DRX) in the GSM system   | G1       | Yes              | 2002-06-28  | yes    |
| 43.019 | Subscriber Identity Module Application Programming Interface (SIM API) for Java Card; Stage 2           | C6       | Yes              | 2002-03-08  | yes    |
| 43.020 | Security-related network functions  | S3       | Yes              | 2002-06-13  | yes    |
| 43.022 | Functions related to Mobile Station (MS) in idle mode and group receive mode                            | G1       | Yes              | 2002-06-28  | yes    |
| 43.026 | Multiband operation of GSM / DCS 1800 by a single operator  | G1       | Yes              | 2002-06-28  | yes    |
| 43.030 | Radio network planning aspects  | G1       | Yes              | 2002-06-28  | yes    |
| 43.033 | 3G security; Lawful Interception; Stage 2   | S3       | Yes              | 2002-03-14  | yes    |
| 43.045 | Technical Realization of Facsimile Group 3 Service - transparent  | C3       | Yes              | 2002-03-08  | yes    |
| 43.050 | Transmission planning aspects of the speech service in the GSM Public Land Mobile Network (PLMN) system | S4       | Yes              | 2002-03-14  | yes    |
| 43.051 | GSM/EDGE Radio Access Network (GERAN) overall description; Stage 2                                      | G1       | Yes              | 2002-04-19  | yes    |
| 43.052 | Lower layers of the GSM Cordless Telephony System (CTS) radio interface; Stage 2                        | G1       | Yes              | 2002-06-28  | yes    |
| 43.055 | Dual Transfer Mode (DTM); Stage 2   | G1       | Yes              | 2002-06-28  | yes    |
| 43.058 | Characterisation, test methods and quality assessment for handsfree Mobile Stations (MSs)               | S4       | Yes              | 2002-06-13  | yes    |
| 43.059 | Functional stage 2 description of Location Services (LCS) in GERAN                                      | G1       | Yes              | 2002-04-19  | yes    |
| 43.064 | General Packet Radio Service (GPRS); Overall description of the GPRS radio interface; Stage 2           | G1       | Yes              | 2002-04-19  | yes    |
| 43.068 | Voice Group Call Service (VGCS); Stage 2  | C1       | Yes              | 2002-03-08  | yes    |
| 43.069 | Voice Broadcast service (VBS); Stage 2  | C1       | Yes              | 2002-03-08  | yes    |
| 43.073 | Support of Localised Service Area (SoLSA); Stage 2  | C4       | Yes              | 2002-06-13  | yes    |
| 43.130 | Iur-g interface; Stage 2  | G1       | Yes              | 2002-08-30  | yes    |
| 44.001 | Mobile Station - Base Station System (MS - BSS) Interface General Aspects and Principles                | C1       | Yes              | 2002-03-08  | yes    |
| 44.003 | Mobile Station - Base Station System (MS - BSS) Interface Channel Structures and Access Capabilities    | G2       | Yes              | 2002-08-30  | yes    |
| 44.004 | Layer 1; General Requirements   | G2       | Yes              | 2002-04-19  | yes    |
| 44.005 | Data Link (DL) Layer General Aspects  | G2       | Yes              | 2002-08-30  | yes    |
| 44.006 | Mobile Station - Base Stations System (MS - BSS) interface Data Link (DL) layer specification           | G2       | Yes              | 2002-08-30  | yes    |
| 44.012 | Short Message Service Cell Broadcast (SMS-CB) support on the mobile radio interface                     | G2       | Yes              | 2002-08-30  | yes    |

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| 44.013 | Performance Requirements on Mobile Radio Interface   | C1       | Yes              | 2002-03-08  | yes    |
| 44.014 | Individual equipment type requirements and interworking; Special conformance testing functions   | G2       | Yes              | 2002-08-30  | yes    |
| 44.018 | Mobile radio interface layer 3 specification; Radio Resource Control (RRC) protocol  | G2       | Yes              | 2002-04-19  | yes    |
| 44.021 | Rate Adaption on the Mobile Station - Base Station System (MS-BSS) Interface   | C3       | Yes              | 2002-03-08  | yes    |
| 44.031 | Location Services (LCS); Mobile Station (MS) - Serving Mobile Location Centre (SMLC) Radio Resource LCS Protocol (RRLP)  | G2       | Yes              | 2002-04-19  | yes    |
| 44.035 | Location Services (LCS); Broadcast network assistance for Enhanced Observed Time Difference (E-OTD) and Global Positioning System (GPS) positioning methods              | G2       | Yes              | 2002-08-30  | yes    |
| 44.056 | GSM Cordless Telephony System (CTS), (Phase 1) CTS Radio Interface Layer 3 Specification   | C1       | Yes              | 2002-03-08  | yes    |
| 44.057 | GSM Cordless Telephony System (CTS), (Phase 1) CTS CTS supervising system Layer 3 Specification  | C1       | Yes              | 2002-03-08  | yes    |
| 44.060 | General Packet Radio Service (GPRS); Mobile Station (MS) - Base Station System (BSS) interface; Radio Link Control / Medium Access Control (RLC/MAC) protocol            | G2       | Yes              | 2002-04-19  | yes    |
| 44.064 | Mobile Station - Serving GPRS Support Node (MS-SGSN); Logical Link Control (LLC) Layer Specification   | C1       | Yes              | 2002-03-08  | yes    |
| 44.065 | Mobile Station (MS) - Serving GPRS Support Node (SGSN); Subnetwork Dependent Convergence Protocol (SNDCP)  | C1       | Yes              | 2002-03-08  | yes    |
| 44.068 | Group Call Control (GCC) Protocol  | C1       | Yes              | 2002-03-08  | yes    |
| 44.069 | Broadcast Call Control (BCC) protocol  | C1       | Yes              | 2002-03-08  | yes    |
| 44.071 | Location Services (LCS); Mobile radio interface layer 3 LCS specification  | G2       | Yes              | 2002-08-30  | yes    |
| 44.118 | Mobile radio interface layer 3 specification, Radio Resource Control (RRC) protocol; lu mode   | G2       | Yes              | 2002-04-19  | yes    |
| 44.160 | General Packet Radio Service (GPRS); Mobile Station (MS) - Base Station System (BSS) interface; Radio Link Control/ Medium Access Control (RLC/MAC) protocol for lu mode | G2       | Yes              | 2002-04-19  | yes    |
| 44.901 | External Network Assisted Cell Change (NACC)   | G2       | Yes              | 2002-04-19  | yes    |
| 45.001 | Physical layer on the radio path; General description  | G1       | Yes              | 2002-04-19  | yes    |
| 45.002 | Multiplexing and multiple access on the radio path   | G1       | Yes              | 2002-04-19  | yes    |
| 45.003 | Channel coding   | G1       | Yes              | 2002-04-19  | yes    |
| 45.004 | Modulation   | G1       | Yes              | 2002-04-19  | yes    |
| 45.005 | Radio transmission and reception   | G1       | Yes              | 2002-04-19  | yes    |
| 45.008 | Radio subsystem link control   | G1       | Yes              | 2002-04-19  | yes    |
| 45.009 | Link adaptation  | G1       | Yes              | 2002-04-19  | yes    |
| 45.010 | Radio subsystem synchronization  | G1       | Yes              | 2002-06-28  | yes    |
| 45.015 | Release independent Downlink Advanced Receiver Performance (DARP); Implementation guidelines   | G1       | Yes              | 2004-11-12  | yes    |
| 45.022 | Radio link management in hierarchical networks   | G1       | Yes              | 2002-06-28  | yes    |
| 45.050 | Background for RF Requirements   | G1       | Yes              | 2002-       | yes    |

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|--------|--|----------|------------------|-------------|--------|
|        |  |          |                  | 06-28       |        |
| 45.056 | CTS-FP Radio Sub-system  | G1       | Yes              | 2002-06-28  | yes    |
| 46.001 | Full rate speech; Processing functions   | S4       | Yes              | 2002-06-13  | yes    |
| 46.002 | Half rate speech; Half rate speech processing functions  | S4       | Yes              | 2002-06-13  | yes    |
| 46.006 | Half-rate speech: ANSI-C code for GSM half-rate speech codec   | S4       | Yes              | 2002-06-13  | yes    |
| 46.007 | Half rate speech; Test sequences for the GSM half rate speech codec  | S4       | Yes              | 2002-06-13  | yes    |
| 46.008 | Half Rate Speech; Performance Characterization of the GSM Half Rate speech codec   | S4       | Yes              | 2002-06-13  | yes    |
| 46.010 | Full-rate speech; Transcoding  | S4       | Yes              | 2002-06-13  | yes    |
| 46.011 | Full rate speech; Substitution and muting of lost frames for full rate speech channels   | S4       | Yes              | 2002-06-13  | yes    |
| 46.012 | Full rate speech; Comfort noise aspect for full rate speech traffic channels   | S4       | Yes              | 2002-06-13  | yes    |
| 46.020 | Half rate speech; Half rate speech transcoding   | S4       | Yes              | 2002-06-13  | yes    |
| 46.021 | Half rate speech; Substitution and muting of lost frames for half rate speech traffic channels   | S4       | Yes              | 2002-06-13  | yes    |
| 46.022 | Half rate speech; Comfort noise aspects for the half rate speech traffic channels  | S4       | Yes              | 2002-06-13  | yes    |
| 46.031 | Full rate speech; Discontinuous Transmission (DTX) for full rate speech traffic channels   | S4       | Yes              | 2002-06-13  | yes    |
| 46.032 | Full rate speech; Voice Activity Detector (VAD) for full rate speech traffic channels  | S4       | Yes              | 2002-06-13  | yes    |
| 46.041 | Half rate speech; Discontinuous Transmission (DTX) for half rate speech traffic channels   | S4       | Yes              | 2002-06-13  | yes    |
| 46.042 | Half rate speech; Voice Activity Detector (VAD) for half rate speech traffic channels  | S4       | Yes              | 2002-06-13  | yes    |
| 46.051 | Enhanced Full Rate (EFR) speech processing functions; General description  | S4       | Yes              | 2002-06-13  | yes    |
| 46.053 | ANSI-C code for the GSM Enhanced Full Rate (EFR) speech codec  | S4       | Yes              | 2002-06-13  | yes    |
| 46.054 | Test sequences for the GSM Enhanced Full Rate (EFR) speech codec   | S4       | Yes              | 2002-06-13  | yes    |
| 46.055 | Performance characterization of the GSM Enhanced Full Rate (EFR) speech codec  | S4       | Yes              | 2002-06-13  | yes    |
| 46.060 | Enhanced Full Rate (EFR) speech transcoding  | S4       | Yes              | 2002-06-13  | yes    |
| 46.061 | Substitution and muting of lost frames for Enhanced Full Rate (EFR) speech traffic channels  | S4       | Yes              | 2002-06-13  | yes    |
| 46.062 | Comfort noise aspects for Enhanced Full Rate (EFR) speech traffic channels   | S4       | Yes              | 2002-06-13  | yes    |
| 46.076 | Adaptive Multi-Rate (AMR) speech codec; Study phase report   | S4       | Yes              | 2004-12-16  | yes    |
| 46.081 | Discontinuous Transmission (DTX) for Enhanced Full Rate (EFR) speech traffic channels  | S4       | Yes              | 2002-06-13  | yes    |
| 46.082 | Voice Activity Detector (VAD) for Enhanced Full Rate (EFR) speech traffic channels   | S4       | Yes              | 2002-06-13  | yes    |
| 46.085 | Subjective tests on the interoperability of the Half Rate / Full Rate / Enhanced Full Rate (HR/FR/EFR) speech codecs, single, tandem and tandem free operation | S4       | Yes              | 2002-06-13  | yes    |
| 48.001 | Base Station System - Mobile-services Switching Centre (BSS - MSC) interface; General aspects  | G2       | Yes              | 2002-08-30  | yes    |

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| 48.002   | Base Station System - Mobile-services Switching Centre (BSS - MSC) interface; Interface principles   | G2       | Yes              | 2002-04-19  | yes    |
| 48.004   | Base Station System - Mobile-services Switching Centre (BSS - MSC) interface; Layer 1 specification  | G2       | Yes              | 2002-08-30  | yes    |
| 48.006   | Signalling Transport Mechanism Specification for the Base Station System - Mobile Services Switching Centre (BSS-MSC) Interface              | G2       | Yes              | 2002-08-30  | yes    |
| 48.008   | Mobile Switching Centre - Base Station system (MSC-BSS) interface; Layer 3 specification   | G2       | Yes              | 2002-04-19  | yes    |
| 48.014   | General Packet Radio Service (GPRS); Base Station System (BSS) - Serving GPRS Support Node (SGSN) interface; Gb interface Layer 1            | G2       | Yes              | 2002-08-30  | yes    |
| 48.016   | General Packet Radio Service (GPRS); Base Station System (BSS) - Serving GPRS Support Node (SGSN) interface; Network service                 | G2       | Yes              | 2002-04-19  | yes    |
| 48.018   | General Packet Radio Service (GPRS); Base Station System (BSS) - Serving GPRS Support Node (SGSN); BSS GPRS protocol (BSSGP)                 | G2       | Yes              | 2002-04-19  | yes    |
| 48.020   | Rate Adaptation on the Base Station System - Mobile Service Switching Centre (BSS-MSC) Interface   | C3       | Yes              | 2002-03-08  | yes    |
| 48.031   | Location Services LCS: Serving Mobile Location Centre - Serving Mobile Location Centre (SMLC - SMLC); SMLCPP specification                   | G2       | Yes              | 2002-06-28  | yes    |
| 48.051   | Base Station Controller - Base Transceiver Station (BSC-BTS) interface; General aspects  | G2       | Yes              | 2002-08-30  | yes    |
| 48.052   | Base Station Controller - Base Transceiver Station (BSC-BTS) interface; Interface principles   | G2       | Yes              | 2002-08-30  | yes    |
| 48.054   | Base Station Controller - Base Transceiver Station (BSC - BTS) interface; Layer 1 structure of physical circuits                             | G2       | Yes              | 2002-08-30  | yes    |
| 48.056   | Base Station Controller - Base Transceiver Station (BSC - BTS) interface; Layer 2 specification  | G2       | Yes              | 2002-08-30  | yes    |
| 48.058   | Base Station Controller - Base Transceiver Station (BCS-BTS) Interface Layer 3 Specification   | G2       | Yes              | 2002-04-19  | yes    |
| 48.060   | In-band control of remote transcoders and rate adaptors for full rate traffic channels   | G1       | Yes              | 2002-04-19  | yes    |
| 48.061   | In-band control of remote transcoders and rate adaptors for half rate traffic channels   | G1       | Yes              | 2002-04-19  | yes    |
| 48.071   | Location Services (LCS); Serving Mobile Location Centre - Base Station System (SMLC-BSS) interface; Layer 3 specification                    | G2       | Yes              | 2002-08-30  | yes    |
| 49.001   | General network interworking scenarios   | C4       | Yes              | 2002-03-08  | yes    |
| 49.008   | Application of the Base Station System Application Part (BSSAP) on the E-Interface   | C1       | Yes              | 2002-03-08  | yes    |
| 49.031   | Location Services (LCS); Base Station System Application Part LCS Extension (BSSAP-LE)   | G2       | Yes              | 2002-04-19  | yes    |
| 49.995   | General Packet Radio Service (GPRS); Interworking between modified Public Land Mobile Network (PLMN) supporting GPRS and legacy GPRS mobiles | G1       | Yes              | 2005-04-08  | yes    |
| 51.010-1 | Mobile Station (MS) conformance specification; Part 1: Conformance specification   | G3new    | Yes              | 2002-03-14  | yes    |
| 51.010-2 | Mobile Station (MS) conformance specification; Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification           | G3new    | Yes              | 2002-08-30  | yes    |
| 51.010-3 | Mobile Station (MS) conformance specification; Part 3: Layer3 (L3) Abstract Test Suite (ATS)   | G3new    | Yes              | 2004-02-06  | yes    |
| 51.013   | Test specification for Subscriber Identity Module (SIM) Application Programming Interface (API) for Java Card                                | C6       | Yes              | 2003-06-06  | yes    |
| 51.021   | Base Station System (BSS) equipment specification; Radio aspects   | G1       | Yes              | 2002-06-28  | yes    |
| 51.026   | Base Station System (BSS) equipment specification; Part 4: Repeaters   | G1       | Yes              | 2002-06-28  | yes    |
| 52.021   | Network Management (NM) Procedures and messages on the A-bis interface   | G1       | Yes              | 2002-06-28  | yes    |

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| 52.402 | Telecommunication management; Performance Management (PM); Performance measurements - GSM  | S5       | Yes              | 2002-12-12  | yes    |
| 55.216 | Specification of the A5/3 encryption algorithms for GSM and ECSD, and the GEA3 encryption algorithm for GPRS; Document 1: A5/3 and GEA3 specification      | S3       | No               | 2004-12-16  | yes    |
| 55.217 | Specification of the A5/3 encryption algorithms for GSM and ECSD, and the GEA3 encryption algorithm for GPRS; Document 2: Implementors' test data          | S3       | No               | 2004-12-16  | yes    |
| 55.218 | Specification of the A5/3 encryption algorithms for GSM and ECSD, and the GEA3 encryption algorithm for GPRS; Document 3: Design and conformance test data | S3       | No               | 2004-12-16  | yes    |
| 55.919 | Specification of the A5/3 encryption algorithms for GSM and ECSD, and the GEA3 encryption algorithm for GPRS; Document 4: Design and evaluation report     | S3       | No               | 2004-12-16  | yes    |

## Annex A (informative): Change history

| Change history |       |           |     |     |   |                                       |
|----------------|-------|-----------|-----|-----|---|---------------------------------------|
| Date           | TSG # | TSG Doc.  | CR  | Rev | Subject/Comment   | New version                           |
| 2001-06        | SP-12 | SP-010278 | -   | -   | First draft   | 3GPP TS<br>41.103<br>version<br>0.0.0 |
| 2001-06-20     | SP-12 | SP-010384 |     |     | updates table of specs  | 0.1.0                                 |
| 2001-09-12     | SP-13 | SP-010421 |     |     | updates table of specs  | 1.0.0                                 |
| 2002-03-04     | SP-15 | SP-020098 |     |     | updates table of specs; adds columns for freeze info              | 1.1.0                                 |
| 2002-03-13     | SP-15 | SP-020203 |     |     | updates table of specs  | 1.2.0                                 |
| 2002-06-03     | SP-16 | SP-020274 |     |     | updates table of specs, minor corrections                         | 2.0.0                                 |
| 2002-06-11     | SP-16 | SP-020401 |     |     | updates table of specs, minor corrections                         | 2.1.0                                 |
| 2002-06-12     | SP-16 | SP-020411 |     |     | updates table of specs; sets unknown freeze target dates blank    | 2.2.0                                 |
|                | SP-16 |           |     |     | approved  | 5.0.0                                 |
| 2002-09        | SP-17 | SP-020616 | 001 | 1   | update list of specs; editorial corrections to spec titles        | 5.1.0                                 |
| 2002-12        | SP-18 | SP-020833 | 002 | 1   | Correction to list of specs, editorial corrections to spec titles | 5.2.0                                 |
| 2003-03        | SP-19 | SP-030077 | 003 | 1   | Correction to list of specs, editorial corrections to spec titles | 5.3.0                                 |
| 2003-06        | SP-20 | SP-030229 | 004 |     | Correction to list of specs                                       | 3GPP TS<br>41.101<br>version<br>5.4.0 |
|                |       | SP-030235 |     |     | Renumber from 41.103 to 41.101                                    |                                       |
| 2003-12        | SP-22 | SP-030574 | 001 |     | Correction to list of specs, editorial corrections to spec titles | 5.5.0                                 |
| 2004-01        |       |           |     |     | Correction to typo in previous line of this table.                | 5.5.1                                 |
| 2004-01        |       |           |     |     | Correction to typo on cover page                                  | 5.5.2                                 |
| 2004-03        | SP-23 | SP-040221 | 003 |     | Corrections to list of specifications                             | 5.6.0                                 |
| 2004-06        | SP-24 | SP-040358 | 005 |     | Corrections to list of specifications                             | 5.7.0                                 |
| 2004-09        | SP-25 | SP-040604 | 006 |     | Corrections to list of specifications                             | 5.8.0                                 |
| 2004-12        | SP-26 | SP-040880 | 008 | 1   | Corrections to list of specifications                             | 5.9.0                                 |
| 2005-03        | SP-27 | SP-040126 | 011 |     | Corrections to list of specifications                             | 5.10.0                                |
| 2005-09        | SP-29 | SP-050462 | 015 |     | Corrections to list of specifications                             | 5.11.0                                |
| 2007-03        | SP-35 | SP-070188 | 023 |     | Corrections to list of specifications                             | 5.12.0                                |
| 2007-12        | SP-38 | SP-070770 | 028 |     | Corrections to list of specifications                             | 5.13.0                                |
|                |       |           | 032 |     | Update of informative text  |                                       |

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## History

| <b>Document history</b> |                |             |
|-------------------------|----------------|-------------|
| V5.4.0                  | June 2003      | Publication |
| V5.5.2                  | January 2004   | Publication |
| V5.6.0                  | March 2004     | Publication |
| V5.7.0                  | June 2004      | Publication |
| V5.8.0                  | September 2004 | Publication |
| V5.9.0                  | December 2004  | Publication |
| V5.10.0                 | March 2005     | Publication |
| V5.11.0                 | September 2005 | Publication |
| V5.12.0                 | March 2007     | Publication |
| V5.13.0                 | January 2008   | Publication |