



SLOVENSKI STANDARD

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European digital cellular telecommunications system (Phase 2); Attachment requirements for Global System for Mobile communications (GSM) mobile stations; Telephony

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ICS:

33.070.50	Globalni sistem za mobilno telekomunikacijo (GSM)	Global System for Mobile Communication (GSM)
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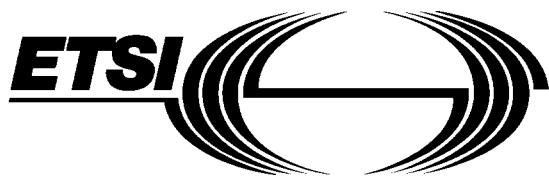
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Telephony

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Foreword

This Technical Basis for Regulation (TBR) has been produced by the Special Mobile Group (SMG) Technical Committee of the European Telecommunications Standards Institute (ETSI). This TBR covers the requirements for GSM Telephony (speech)

This TBR contains the procedures and requirements for the approval testing of GSM terminal equipment for speech.

The requirements of other TBRs apply in addition to this TBR.

For each test, supplementary information is provided, giving a justification why this item has been selected for regulatory testing, and a reference to the relevant article of the Terminal Directive [1].

This TBR is based on the ETS 300 607-1 (GSM 11.10-1) [2].

This TBR 20 corresponds to TC-SMG TBR 20 version 4.0.0.

NOTE: This TBR for Phase 2 may be developed in stages. The first release will include, as a minimum, all of the basic Phase 2 requirements for full rate and primary band. Subsequent releases will include additional requirements.

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1 Scope

This Technical Basis for Regulation (TBR) specifies the technical requirements to be met by terminal equipment capable of connecting to a public telecommunications network. These requirements apply to terminals for Phase 2 of the public land mobile radio service, operating in the 900 MHz band with a channel separation of 200 kHz, utilising constant envelope modulation and carrying traffic channels according to the Time Division Multiple Access (TDMA) principle.

This TBR specifies the requirements for GSM Telephony (speech) for the GSM900 version of the Global System for Mobile communications (GSM).

For each test purpose and its corresponding conformance requirement, a reference is given to ETS 300 607-1 (GSM 11.10-1) [2]. The requirements apply to speech transmission.

The measurement uncertainty is handled, as described in ETS 300 607-1 (GSM 11.10-1) [2].

This TBR covers the essential requirements of the Terminal Directive 91/263/EEC [1] Article 4g. Articles 4d, 4e, and 4f are covered by TBR 19.

The Terminal Directive 91/263/EEC Articles 4a and 4b are covered by other directives, and, therefore, not by this TBR.

In this TBR, there are no Electromagnetic Compatibility technical requirements in terms of the Terminal Directive 91/263/EEC, Article 4c.

NOTE: Technical Requirements for EMC performance and testing of the equipment are covered by the relevant standards applicable to the EMC Directive 89/336/EEC, Annex A.

Terminal equipment may be subject to additional requirements in other Common Technical Regulations (CTR) depending on the equipments functionality.

ETS 300 607-1 (GSM 11.10-1) [2] constitutes the conformance test suite for GSM. The verification of the conformance requirements in this TBR is based on the tests described in this reference. The set of requirements in ETS 300 607-1 (GSM 11.10-1) [2] and the set of requirements in this TBR need not be identical.

Some requirements only apply to specific types of mobile station (e.g. data tests only apply to mobile stations with a data facility). The TBR also indicates the specific test which shall be carried out for each mobile station type.

An active accessory is covered by this TBR if it modifies the terminal performance in an aspect which affects conformance to essential requirements.

NOTE: Only active devices are subject to this TBR. Accessories may be tested with specific terminals, and either approved for use with those terminals only, or may possibly be approved for use with a wider range of terminals, depending on the nature and effect of the accessory.

2 Normative references

This TBR incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references subsequent amendments to or revision of any of these publications apply to the requirements specified in this TBR, only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

- [1] Terminal Directive 91/263/EEC: "Council directive of 29 April 1991 on the approximation of the laws of the Member States concerning telecommunications terminal equipment, including the mutual recognition of their conformity. ("The Terminal Directive")".
- [2] ETS 300 607-1 (GSM 11.10-1 Version 4.13.0): "European digital cellular telecommunications system (phase 2); Mobile station conformity specifications".
- [3] TBR 19: "European digital cellular telecommunications system (Phase 2); Attachment requirements for Global System for Mobile communications (GSM) mobile stations; Access".
- [4] ETS 300 540 (GSM 03.50 Version 4.2.0): "European digital cellular telecommunications system (Phase 2); Transmission planning aspects of the speech service in the GSM Public Land Mobile Network (PLMN) system".
- [5] ETS 300 504 (GSM 02.06 Version 4.4.0): "European digital cellular telecommunication system (Phase 2); Types of Mobile Stations (MS)".

3 Abbreviations

ACK	ACKnowledgement
ARFCN	Absolute Radio Frequency Channel Number
ATR	Answer To Reset
ATT	ATTach (flag)
BA	BCCH Allocation
BC	Bearer Capability
BCCH	Broadcast Control CHannel
BER	Bit Error Ratio
BFI	Bad Frame Indication
BTS	Base Transceiver Station
CC	Call Control
CCH	Control CHannel
CCCH	Common Control CHannel
CFB	Call Forwarding mobile subscriber Busy
CFNRc	Call Forwarding MS Not Reachable
CFU	Call Forwarding Unconditional
CKSN	Ciphering Key Sequence Number
CLK	CLock
CM	Connection Management
CTR	Common Technical Regulations
DCCH	Dedicated Control CHannel
DISC	DISConnect frame
DM	Disconnect Mode (frame)
DRX	Discontinuous Reception (mechanism)
DTE	Data Terminal Equipment
DTMF	Dual Tone Multi Frequency
DTX	Discontinuous Transmission (mechanism)
EA	Address field Extension bit
EL	Length indicator field Extension bit
etu	elementary time unit
F	Final bit
FACCH	Fast Associated Control CHannel

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FER	Frame Erasure Ratio
HLR	Home Location Register
HPLMN	Home PLMN
I	Information (frame)
IMEI	International Mobile station Equipment Identity
IMSI	International Mobile Subscriber Identity
L	Length indicator
LA	Location Area
LAC	Location Area Code
LAI	Location Area Identification
M	More data bit
ME	Mobile Equipment
MM	Mobility Management
MMI	Man Machine Interface
MO	Mobile Originated
MOC	Mobile Originated Call
MS	GSM Mobile Station
MT	Mobile terminated
MTC	Mobile terminated Call
N(R)	Receive sequence Number
N(S)	Send sequence Number
N(SD)	SenD sequence Number
NPI	Number Plan Identification
OACSU	Off Air Call Set Up
P	Poll bit
PICS	Protocol Implementation Conformance Statement
PIXIT	Protocol Implementation eXtra Information for Testing
PLMN	Public Land Mobile Network
PRC	structured PRoCedures
RA	Random mode request information field
RACH	Random Access CHannel
RAND	RANdOm number (authentication)
RBER	Residual Bit Error Ratio
REJ	REJect (frame)
RF	Radio Frequency
RMS	Root Mean Square (value)
RNR	Receiver Not Ready (frame)
RR	Radio Resource (management entity / connection)
RR	Receive Ready (frame) (in L2)
RST	Reset
RXLEV	Received signal LEVel
RXQUAL	Received signal QUALity
RXQUAL_FULL	Received signal QUALity assessed over the FULL set of TDMA frames within a SACCH block
RXQUAL_SUB	Received signal QUALity assessed over a SUBset of 12 TDMA frames
S	S counter
SABM	Set Asynchronous Balanced Mode (frame)
SACCH	Slow Associated Control CHannel
SAPI	Service Access Point Identifier
SDCCH	Stand-alone Dedicated Control CHannel
SIM	Subscriber Identity Module
SMS	Short Message Service
SRES	Signed RESponse (authentication)
SS	System Simulator
TA	Terminal Adapter
TCH	Traffic CHannel
TCH/FS	Full rate Traffic CHannel for Speech
TCH/HS	Half rate Traffic CHannel for Speech
TDMA	Time Division Multiple Access
TE	Terminal equipment
TI	Transaction Identifier
TMSI	Temporary Mobile Subscriber Identity

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