



SLOVENSKI STANDARD
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Digital cellular telecommunications system (Phase 2+) (GSM); Performance requirements on the mobile radio interface (GSM 04.13 version 7.0.1 Release 1998)

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Digital cellular telecommunications system (Phase 2+); Performance requirements on the mobile radio interface (GSM 04.13 version 7.0.1 Release 1998)

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Foreword

This European Standard (Telecommunications series) has been produced by the Special Mobile Group (SMG).

The present document provides a mechanism giving reliable transfer of signalling messages within the digital cellular telecommunications system (Phase 2+).

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

Version 7.x.y

where:

- 7 indicates Release 1998 of GSM Phase 2+.
- x the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- y the third digit is incremented when editorial only changes have been incorporated in the specification.

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National transposition dates

Date of adoption of this EN:	31 December 1999
Date of latest announcement of this EN (doa):	31 March 2000
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	30 September 2000
Date of withdrawal of any conflicting National Standard (dow):	30 September 2000

1 Scope

The present document specifies measurable performance requirements for signalling aspects of Mobile Stations (MS)s. To allow implementation flexibility it has been chosen to specify requirements on the whole Mobile Station rather than to specify requirements on each "OSI layer". As a consequence the performance requirements do not fit conveniently in specifications such as GSM 04.08 [4] (layer 3 only) or GSM 04.06 [3] (layer 2 only).

The main aim of the present document is to provide the justification for testing of requirements that are not included in other GSM specifications. Where specific requirements are included in other GSM specifications they are not duplicated here.

MSs have to perform a wide variety of functions. As a consequence most performance measurements have to be made under a set of defined conditions: where necessary, these are included in the present document.

Where necessary certain assumptions are made about the interaction times between the mobile equipment and the SIM. If the (test) SIM does not respond within the assumed time then appropriate allowances shall be made.

Additionally, it is intended that the present document should contain sufficient requirements to enable some undefined network timers in GSM 04.08 [4] to be calculated.

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.
- A non-specific reference to an ETS shall also be taken to refer to later versions published as an EN with the same number.
- For this Release 1998 document, references to GSM documents are for Release 1998 versions (version 7.x.y).

- [1] GSM 01.04: "Digital cellular telecommunications system (Phase 2+); Abbreviations and acronyms".
- [2] GSM 03.22: "Digital cellular telecommunications system (Phase 2+); Functions related to Mobile Station (MS) in idle mode and group receive mode".
- [3] GSM 04.06: "Digital cellular telecommunications system (Phase 2+); Mobile Station - Base Station System (MS - BSS) interface Data Link (DL) layer specification".
- [4] GSM 04.08: "Digital cellular telecommunications system (Phase 2+); Mobile radio interface layer 3 specification".
- [5] GSM 04.86: "Digital cellular telecommunications system (Phase 2+); Advice of Charge (AoC) supplementary services - Stage 3".
- [6] GSM 05.02: "Digital cellular telecommunications system (Phase 2+); Multiplexing and multiple access on the radio path".
- [7] GSM 05.08: "Digital cellular telecommunications system (Phase 2+); Radio subsystem link control".

3 Abbreviations and definitions

3.1 Abbreviations

Abbreviations used in the present document are listed in GSM 01.04 [1].

3.2 Definitions

For the purposes of the present document, the following definition applies.

ready to transmit: In the present document the phrase "ready to transmit the message before time x" is defined to mean that the MS shall transmit part of that message no later than the first burst of the first TCH or control channel block that occurs after time x.

4 Default conditions

Unless otherwise stated, throughout the present document the following conditions are associated with the requirements:

- ideal radio link with an insignificant bit error rate;
- no other signalling is in progress on the main DCCH;
- messages sent by the network are correctly formed;
- the only established data link (or the only data link to be established) is on SAPI 0;
- any Starting Time IE that is included in a message sent by the network does not require the action to be delayed;
- cells are not barred and all access classes are allowed;
- the layer 2 performance of the network shall satisfy the "System Performance Requirements" of subclause 5.9 of GSM 04.06 [3];
- messages sent by the network may contain any set of optional IEs, and any permitted set of conditional IEs;
- the mobile has a valid SIM inserted, is powered on, and the SIM's update status is "updated"; and
- on the CCCH, the Page Mode IE is not set to "paging reorganization" or "same as before".

5 Requirements

5.1 General requirements

5.1.1 Response to layer 3 message

The requirements of subclause 5.1.1 apply if there are no specific requirements for a layer 3 message in other parts of clause 5.

If the last timeslot of the message block containing a network command occurs at time T, then the MS shall be ready to transmit the response before time T + 500 ms.