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Candidate Harmonized European Standard (Telecommunications series)

**Global System for Mobile communications (GSM);
Harmonized standard for
mobile stations in the GSM 900 and DCS 1800 bands
covering essential requirements under
article 3.2 of the R&TTE directive (1999/5/EC)
(GSM 13.11 version 7.0.0 Release 1998)**



GSM®
GLOBAL SYSTEM FOR
MOBILE COMMUNICATIONS

ETSI 

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Foreword

This Candidate Harmonized European Standard (Telecommunications series) has been produced by ETSI Technical Committee Special Mobile Group (SMG), and is now submitted for the ETSI standards One-step Approval Procedure.

The present document has been produced by ETSI in response to a mandate from the European Commission issued under Council Directive 98/34/EC laying down a procedure for the provision of information in the field of technical standards and regulations.

The present document is intended to become a Harmonized Standard, the reference of which will be published in the Official Journal of the European Communities referencing the Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity ("the R&TTE Directive") [1].

Technical specifications relevant to Directive 1999/5/EC are given in annex A.

Proposed national transposition dates	
Date of latest announcement of this EN (doa):	3 months after ETSI publication
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	6 months after doa
Date of withdrawal of any conflicting National Standard (dow):	6 months after doa

Introduction

The present document is part of a set of standards designed to fit in a modular structure to cover all radio and telecommunications terminal equipment under the R&TTE Directive [1]. Each standard is a module in the structure. The modular structure is shown in figure 1.

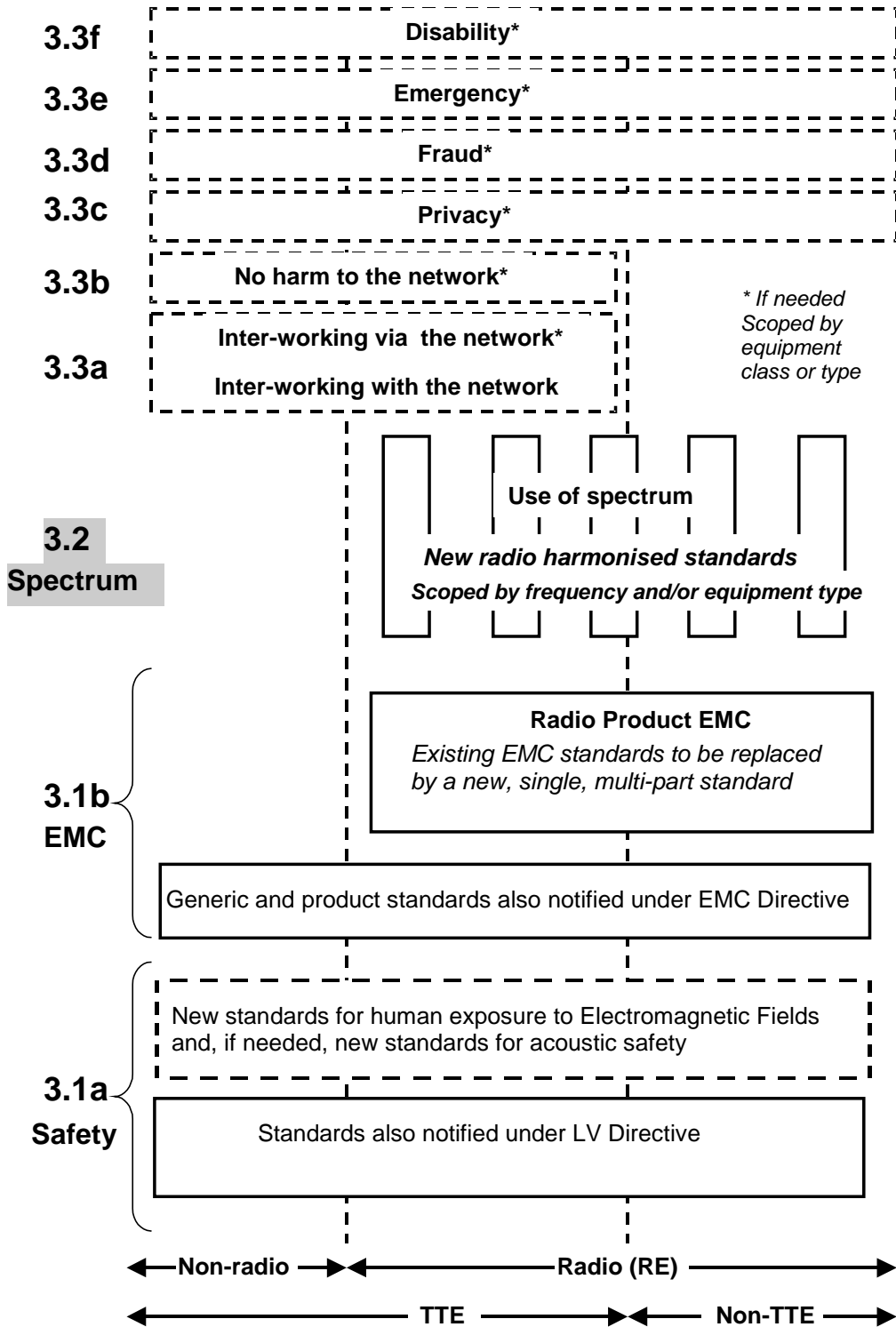


Figure 1: Modular structure for the various standards used under the R&TTE Directive [1]

The left hand edge of the figure 1 shows the different subclauses of Article 3 of the R&TTE Directive [1].

For article 3.3 various horizontal boxes are shown. Dotted lines indicate that at the time of publication of this standard essential requirements in these areas have to be adopted by the Commission. If such essential requirements are adopted, and as far and as long as they are applicable, they will justify individual standards whose scope is likely to be specified by function or interface type.

The vertical boxes show the standards under article 3.2 for the use of the radio spectrum by radio equipment. The scopes of these standards are specified either by frequency (normally in the case where frequency bands are harmonized) or by radio equipment type.

For article 3.1b the diagram shows the new single multi-part product EMC standard for radio, and the existing collection of generic and product standards currently used under the EMC Directive [13]. The parts of this new standard will become available in the second half of 2000, and the existing separate product EMC standards will be used until it is available.

For article 3.1a the diagram shows the existing safety standards currently used under the LV Directive [14] and new standards covering human exposure to electromagnetic fields. New standards covering acoustic safety may also be required.

The bottom of the figure shows the relationship of the standards to radio equipment and telecommunications terminal equipment. A particular equipment may be radio equipment, telecommunications terminal equipment or both. A radio spectrum standard will apply if it is radio equipment. An article 3.3 standard will apply as well only if the relevant essential requirement under the R&TTE Directive [1] is adopted by the Commission and if the equipment in question is covered by the scope of the corresponding standard. Thus, depending on the nature of the equipment, the essential requirements under the R&TTE Directive [1] may be covered in a set of standards.

The modularity principle has been taken because:

- it minimizes the number of standards needed. Because equipment may, in fact, have multiple interfaces and functions it is not practicable to produce a single standard for each possible combination of functions that may occur in an equipment;
- it provides scope for standards to be added:
 - under article 3.2 when new frequency bands are agreed or
 - under article 3.3 should the Commission take the necessary decisionswithout requiring alteration of standards that are already published;
- it clarifies, simplifies and promotes the usage of Harmonized Standards as the relevant means of conformity assessment.

1 Scope

The present document applies to the following radio telecommunications terminal equipment types:

- 1 GSM mobile station.

This radio equipment type is for operation within the Digital cellular telecommunications system in the GSM 900 and/or DCS 1800 frequency bands as shown in table 1.

Table 1: Frequency bands for GSM900 and DCS1800 Mobile Station system

Type	TX:	RX:
P-GSM900	890-915 MHz	935-960 MHz
DCS1800	1710-1785 MHz	1805-1880 MHz
E-GSM900	880-915 MHz	925-960 MHz
R-GSM900	876-915 MHz	921-960 MHz

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 EN is intended to cover the provisions of Directive 1999/5/EC (R&TTE Directive) [1] Article 3.2, which states that “..... radio equipment shall be so constructed that it effectively uses the spectrum allocated to terrestrial/space radio communications and orbital resources so as to avoid harmful interference.”

This EN covers the general access requirements for terminal equipment for Phase 2 and Phase 2+ Releases 1996, 1997 and 1998. This EN constitutes the equivalent of the GSM document GSM 13.11 version 7.0.0. This EN does not cover the GPRS Class A mobiles and the GPRS only mobiles.

For each test purpose and its corresponding conformance requirement, a reference is given to the test method in EN 300 607-1 (GSM 11.10-1) [2]. The requirements apply at the air interface which may be stimulated to perform the tests by additional equipment if necessary.

The measurement uncertainty is described in EN 300 607-1 (GSM 11.10-1) [2].

In addition to this EN, other ENs that specify technical requirements in respect of essential requirements under other parts of Article 3 of the R&TTE Directive [1] may apply to equipment within the scope of this EN.

NOTE: A list of such ENs is included on the web site <<http://www.newapproach.org>>.

EN 300 607-1 (GSM 11.10-1) [2] constitutes the conformance test suite for GSM. The verification of the conformance requirements in this standard is based on the tests described in this reference. The set of requirements in EN 300 607-1 (GSM 11.10-1) [2] and the set of requirements in this standard 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, tests that only apply to GSM900 or only to DCS1 800 or to both). The present document indicates the specific test which should be carried out for each mobile station type.

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

Note: Only active devices are subject to this standard. 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 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] Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity (R&TTE Directive).
- [2] EN 300 607-1 (GSM 11.10-1) version 8.1.0: "Digital cellular telecommunications system (phase 2); Mobile station conformity specifications".
- [3] ETS 300 500 (GSM 02.01) version 4.6.0: "Digital cellular telecommunication system (Phase 2); Principles of telecommunications services supported by a GSM Public Land Mobile Network (PLMN)".
- [4] GSM 02.01 version 5.5.0 Release 1996: "Digital cellular telecommunication system (Phase 2+); Principles of telecommunications services supported by a GSM Public Land Mobile Network (PLMN)".
- [5] TS 100 500 (GSM 02.01) version 6.2.0 Release 1997: "Digital cellular telecommunication system (Phase 2+); Principles of telecommunications services supported by a GSM Public Land Mobile Network (PLMN)".
- [6] TS 100 500 (GSM 02.01) version 7.1.0 Release 1998: "Digital cellular telecommunication system (Phase 2+); Principles of telecommunications services supported by a GSM Public Land Mobile Network (PLMN)". [7] ETS 300 504 (GSM 02.06) version 4.5.0: "Digital cellular telecommunications system (Phase 2); Types of Mobile Stations (MS)".
- [8] ETS 300 919 (GSM 02.06) version 5.2.1 Release 1996: "Digital cellular telecommunications system (Phase 2+); Types of Mobile Stations (MS)".
- [9] EN 300 919 (GSM 02.06) version 6.1.1 Release 1997: "Digital cellular telecommunications system (Phase 2+); Types of Mobile Stations (MS)".
- [10] EN 300 919 (GSM 02.06) version 7.0.1: "Digital cellular telecommunications system (Phase 2+); Types of Mobile Stations (MS)".
- [11] EN 301 113 (GSM 02.60) version 6.3.0 Release 1997: "Digital cellular telecommunications system (Phase 2+); General Packet Radio Service (GPRS); Service description; Stage 1".
- [12] TS 101 113 (GSM 02.60) version 7.4.0 Release 1998: "Digital cellular telecommunications system (Phase 2+); General Packet Radio Service (GPRS); Service description; Stage 1".
- [13] Council Directive of 3 May 1989 on the approximation of the laws of the Member States relating to electromagnetic compatibility (89/336/EEC) (EMC Directive).
- [14] Council Directive of 19 February 1973 on the harmonization of the laws of Member States relating to electrical equipment designed for use within certain voltage limits (73/23/EEC) (LV Directive).

3 Definitions, symbols and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions in the R&TTE Directive [1], and the following terms and definitions apply.

Environmental profile: the range of environmental conditions under which equipment within the scope of the present document is required to comply with the provisions of the present document.

3.2 Symbols

There are no special symbols used in this EN.

3.3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

ME	Mobile Equipment
MS	GSM Mobile Station
R&TTE	Radio and Telecommunications Terminal Equipment
RF	Radio Frequency

4 Technical requirements specifications

4.1 Environmental profile

The technical requirements of the present document apply under the environmental profile for operation of the equipment, which shall be declared by the supplier. The equipment shall comply with all the technical requirements of the present document at all times when operating within the boundary limits of the required operational environmental profile.

4.2 Conformance requirements

The present document contains all requirements that are needed for terminals to meet the essential requirement as defined in the Directive 1999/5/EC [1], Article 3.2.

- The present document gives normative reference to a sub clause of EN 300 607-1 (GSM 11.10-1) [2] containing the conformance requirement text, and references to the base standard.

4.2.1 Transmitter - Frequency error and phase error.

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 13.1

4.2.2 Transmitter - Frequency error under multipath and interference conditions.

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 13.2

4.2.3 Transmitter - Frequency error and phase error in HSCSD multislot configuration

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 13.6

4.2.4 Frequency error and phase error in GPRS multislot configuration

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 13.16.1

4.2.5 Transmitter output power and burst timing -

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 13.3

4.2.6 Transmitter – Output RF spectrum.

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 13.4

4.2.7 Transmitter output power and burst timing in HSCSD multislot configurations

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 13.7

4.2.8 Transmitter – Output RF spectrum in HSCSD multislot configuration

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 13.8

4.2.9 Transmitter – Output RF spectrum for MS supporting the R-GSM frequency band.

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 13.9

4.2.10 Transmitter output power in GPRS multislot configuration

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 13.16.2

4.2.11 Output RF spectrum in GPRS multislot configuration

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 13.16.3

4.2.12 Conducted spurious emissions - MS allocated a channel.

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 12.1.1

4.2.13 Conducted spurious emissions - MS in idle mode.

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 12.1.2

4.2.14 Conducted spurious emissions for MS supporting the R-GSM frequency band - MS allocated a channel.

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 12.3.1

4.2.15 Conducted spurious emissions for MS supporting the R-GSM frequency band - MS in idle mode.

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 12.3.2

4.2.16 Radiated spurious emissions - MS allocated a channel.

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 12.2.1

4.2.17 Radiated spurious emissions - MS in idle mode.

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 12.2.2

4.2.18 Radiated spurious emissions for MS supporting the R-GSM frequency band - MS allocated a channel.

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 12.4.1

4.2.19 Radiated spurious emissions for MS supporting the R-GSM frequency band - MS in idle mode.

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 12.4.2

4.2.20 Receiver Blocking and spurious response - speech channels.

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 14.7.1

4.2.21 Receiver Blocking and spurious response – speech channels for MS supporting the R-GSM frequency band.

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 14.7.3

5 Testing for compliance with technical requirements

5.1 Environmental conditions for testing

Tests defined in the present document shall be carried out at representative points within the boundary limits of the required operational environmental profile.

Where technical performance varies subject to environmental conditions a sufficient variety of environmental conditions (within the boundary limits of the required operational environmental profile) to give confidence of compliance should be inserted here for the affected technical requirements.

5.2 Essential radio test suites

5.2.1 Transmitter - Frequency error and phase error.

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 13.1

5.2.2 Transmitter - Frequency error under multipath and interference conditions.

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 13.2

5.2.3 Transmitter - Frequency error and phase error in HSCSD multislot configuration

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 13.6

5.2.4 Frequency error and phase error in GPRS multislot configuration

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 13.16.1

5.2.5 Transmitter output power and burst timing -

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 13.3

5.2.6 Transmitter – Output RF spectrum.

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 13.4

5.2.7 Transmitter output power and burst timing in HSCSD multislot configurations

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 13.7

5.2.8 Transmitter – Output RF spectrum in HSCSD multislot configuration

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 13.8

5.2.9 Transmitter – Output RF spectrum for MS supporting the R-GSM frequency band.

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 13.9

5.2.10 Transmitter output power in GPRS multislot configuration

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 13.16.2

5.2.11 Output RF spectrum in GPRS multislot configuration

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 13.16.3

5.2.12 Conducted spurious emissions - MS allocated a channel

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 12.1.1

5.2.13 Conducted spurious emissions - MS in idle mode

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 12.1.2

5.2.14 Conducted spurious emissions for MS supporting the R-GSM frequency band - MS allocated a channel.

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 12.3.1

5.2.15 Conducted spurious emissions for MS supporting the R-GSM frequency band - MS in idle mode

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 12.3.2

5.2.16 Radiated spurious emissions - MS allocated a channel

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 12.2.1

5.2.17 Radiated spurious emissions - MS in idle mode

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 12.2.2

5.2.18 Radiated spurious emissions for MS supporting the R-GSM frequency band - MS allocated a channel

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 12.4.1

5.2.19 Radiated spurious emissions for MS supporting the R-GSM frequency band - MS in idle mode

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 12.4.2

5.2.20 Receiver Blocking and spurious response - speech channels

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 14.7.1

5.2.21 Receiver Blocking and spurious response – speech channels for MS supporting the R-GSM frequency band

Refer to sub clause of EN 300 607-1 (GSM 11.10-1) [2] 14.7.3

Annex A (normative): The EN requirements table (EN-RT)

Notwithstanding the provisions of the copyright clause related to the text of the present document, ETSI grants that users of the present document may freely reproduce the EN-RT proforma in this annex so that it can be used for its intended purposes and may further publish the completed EN-RT.

The EN Requirements Table (EN-RT) serves a number of purposes, as follows:

- it provides a tabular summary of all the requirements;
- it shows the status of each EN-R, whether it is essential to implement in all circumstances (Mandatory), or whether the requirement is dependent on the supplier having chosen to support a particular optional service or functionality (Optional). In particular it enables the EN-Rs associated with a particular optional service or functionality to be grouped and identified;
- when completed in respect of a particular equipment it provides a means to undertake the static assessment of conformity with the EN.

The EN-RT is placed in an annex of the EN in order that it may be photocopied and used as a proforma.

Table A.1: EN Requirements Table (EN-RT)

EN Reference		EN xxx xxx			EN 300 607-1 Clause
No.	Reference	EN-R (note)	Status	Supported	
1	4.2.1	Transmitter - Frequency error and phase error.	M		13.1
2	4.2.2	Transmitter - Frequency error under multipath and interference conditions.	M		13.2
3	4.2.3	Transmitter - Frequency error and phase error in HSCSD multislot configuration	C5		13.6
4	4.2.4	Frequency error and phase error in GPRS multislot configuration	C6		13.16.1
5	4.2.5	Transmitter output power and burst timing -	M		13.3
6	4.2.6	Transmitter – Output RF spectrum.	C2		13.4
7	4.2.7	Transmitter output power and burst timing in HSCSD multislot configurations	C5		13.7
8	4.2.8	Transmitter – Output RF spectrum in HSCSD multislot configuration	C5		13.8
9	4.2.9	Transmitter – Output RF spectrum for MS supporting the R-GSM frequency band.	C4		13.9
10	4.2.10	Transmitter output power in GPRS multislot configuration	C6		13.16.2
11	4.2.11	Output RF spectrum in GPRS multislot configuration	C6		13.16.3
12	4.2.12	Conducted spurious emissions - MS allocated a channel.	C1		12.1.1
13	4.2.13	Conducted spurious emissions - MS in idle mode.	C1		12.1.2
14	4.2.14	Conducted spurious emissions for MS supporting the R-GSM frequency band - MS allocated a channel.	C3		12.3.1
15	4.2.15	Conducted spurious emissions for MS supporting the R-GSM frequency band - MS in idle mode.	C3		12.3.2
16	4.2.16	Radiated spurious emissions - MS allocated a channel.	C2		12.2.1
17	4.2.17	Radiated spurious emissions - MS in idle mode.	C2		12.2.2
18	4.2.18	Radiated spurious emissions for MS supporting the R-GSM frequency band - MS allocated a channel.	C4		12.4.1
19	4.2.19	Radiated spurious emissions for MS supporting the R-GSM frequency band - MS in idle mode.	C4		12.4.2
20	4.2.20	Receiver Blocking and spurious response - speech channels.	C7		14.7.1

EN Reference		EN xxx xxx			EN 300 607-1 Clause
No.	Reference	EN-R (note)	Status	Supported	
21	4.2.21	Receiver Blocking and spurious response – speech channels for MS supporting the R-GSM frequency band.	C8		14.7.3
NOTE: These EN-Rs are justified under Article 3.2 of the R&TTE Directive.					
C1	IF NOT A.1/2 AND A.2/2 THEN M ELSE N/A	-- NOT Type_R-GSM AND TSPC_AddInfo_PermAntenna			
C2	IF NOT A.1/2 THEN M ELSE N/A	-- NOT Type_R-GSM			
C3	IF A.1/2 AND A.2/2 THEN M ELSE N/A	-- Type_R-GSM AND TSPC_AddInfo_PermAntenna			
C4	IF A.1/2 THEN M ELSE N/A	-- Type_R-GSM			
C5	IF A.1/1 THEN M ELSE N/A	-- Type_HSCSD			
C6	IF A.1/3 THEN M ELSE N/A	-- Type_GPRS			
C7	IF NOT A.1/2 AND A.2/1 THEN M ELSE N/A	-- NOT Type_R-GSM AND TSPC_FullRateSpeech			
C8	IF A.1/2 AND A.2/1 THEN M ELSE N/A	-- Type_R-GSM AND TSPC_FullRateSpeech			

Key to columns:

No Table entry number;

Reference Subclause reference number of conformance requirement within the present document;

EN-R Title of conformance requirement within the present document;

Status Status of the entry as follows:

- M Mandatory, shall be implemented under all circumstances;
- O Optional, may be provided, but if provided shall be implemented in accordance with the requirements;
- O.<n> this status is used for mutually exclusive or selectable options among a set. The integer "n" shall refer to a unique group of options within the EN-RT. A footnote to the EN-RT shall explicitly state what the requirement is for each numbered group. For example, "It is mandatory to support at least one of these options", or, "It is mandatory to support exactly one of these options".
- C<n> Conditional number <n>. Reference is made to a Boolean expression under the table with predicates of support answers, which will resolve to either "M", "X", "N", or "O.<n>" for a specific implementation. In all cases "ELSE Not Applicable" is implied, if an ELSE expression is omitted.
- N/A Not applicable.
- X Excluded or Prohibited.

Only the requirements necessary to determinate the applicability of the test cases have been included in this clause.

A.1 Type of Mobile Stations

Table A.1: Type of Mobile Station

Item	Type of Mobile Station	Ref.	Status	Support	Mnemonic
1	HSCSD Multislot MS	GSM 02.06 [7] to [10], 3.2.3	O		Type_HSCSD
2	R-GSM MS	GSM 02.06 [7] to [10], 3.2.1	O		Type_R-GSM
3	GPRS MS	GSM 02.60 [11] to [12], 5.4.5	O		Type_GPRS

A.2 Additional Information

Table A.2: Additional Information

Item	Additional Information	Ref.	Status	Support	Mnemonic
1	full rate speech mode.	GSM 02.06 [7] to [10], 3.2.2, GSM 02.01 [3] to [6], A.1.1	O		TSPC_FullRateSpeech
2	Permanent Antenna Connector.	GSM 11.10-1 [2], 12.1.1, 12.1.2	O		TSPC_AddInfo_PermAntenna

Annex B: (informative)

The EN title in the official languages

Language	EN title
Danish	
Dutch	
English	Harmonized EN for Global System for Mobile communications (GSM); mobile stations in the GSM 900 and DCS 1800 bands covering essential requirements under article 3.2 of the R&TTE directive
Finnish	
French	
German	
Greek	
Icelandic	
Italian	
Portuguese	
Spanish	
Swedish	

Annex C: (informative)

Change history

Date	Version	Comments
February 99	1.0.0	Presented at SMG #28 for information
August 99	1.0.1	Changes approved at SMG7 #22
September 99	1.1.0	Adapted to R&TTE Steering Committee HS proforma
January 00	1.1.1	Selection of test cases for Phase 2. Addition of sections for Phase 2+. Phase 2+ test cases are for further study.
February 00	1.1.5	Editorial reorganisation to comply with proforma and with latest proforma sentences by STF 149.
April 00	1.1.6	References update and editorial modifications
May 00	1.1.7	Edited during SMG7#25
June 00	1.1.8	Electronically approved by SMG7
June 00	2.0.0	Presented for approval at SMG #32
June 00	7.0.0	Approved at SMG #32

History

Document history		
V7.0.0	August 2000	One-step Approval Procedure OAP 20001201: 2000-08-02 to 2000-12-01