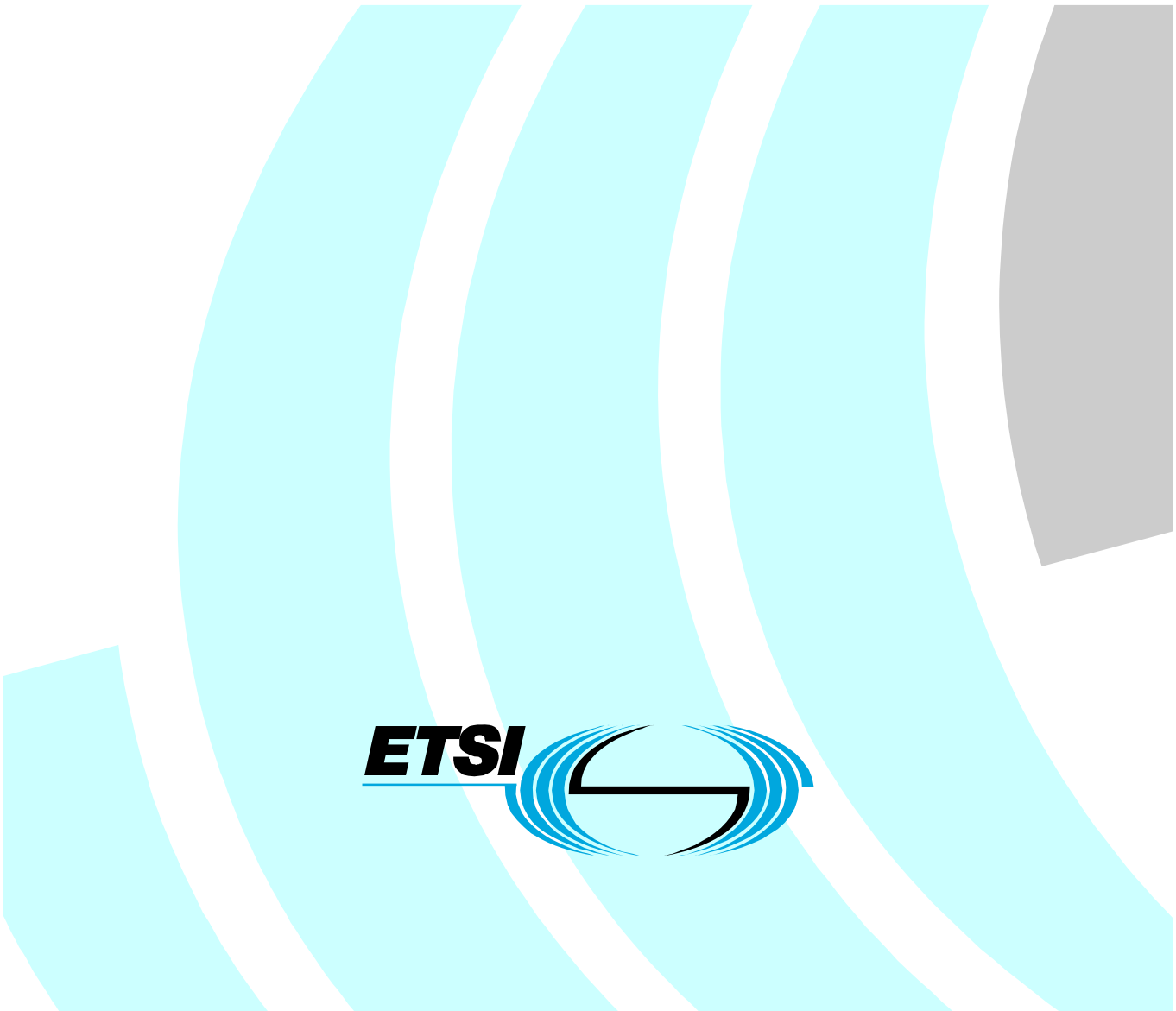
Final draft ETSI EN 301 783-2 V1.2.1 (2010-04)

Harmonized European Standard (Telecommunications series)

Electromagnetic compatibility and Radio spectrum Matters (ERM); Land Mobile Service; Commercially available amateur radio equipment; Part 2: Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive



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Foreword

This Harmonized European Standard (Telecommunications series) has been produced by ETSI Technical Committee Electromagnetic compatibility and Radio spectrum Matters (ERM), and is now submitted for the Vote phase of the ETSI standards Two-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 [i.2] (as amended) 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 [i.1] 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").

Technical specifications relevant to Directive 1999/5/EC [i.1] are given in annex A.

The present document is part 2 of a multi-part deliverable covering the Electromagnetic compatibility and Radio spectrum Matters (ERM); Land Mobile Service; Commercially available amateur radio equipment, as identified below:

Part 1: "Technical characteristics and methods of measurement";

Part 2: "Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive".

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):	12 months after doa

1 Scope

The present document applies to the radio equipment as defined in EN 301 783-1 [1].

The present document is intended to cover the provisions of Directive 1999/5/EC [i.1] (R&TTE Directive) 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".

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

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

2 References

References are either specific (identified by date of publication and/or edition number or version number) or non-specific.

- For a specific reference, subsequent revisions do not apply.
- Non-specific reference may be made only to a complete document or a part thereof and only in the following cases:
  - if it is accepted that it will be possible to use all future changes of the referenced document for the purposes of the referring document;
  - for informative references.

Referenced documents which are not found to be publicly available in the expected location might be found at http://docbox.etsi.org/Reference.

NOTE: While any hyperlinks included in this clause were valid at the time of publication ETSI cannot guarantee their long term validity.

2.1 Normative references

The following referenced documents are indispensable for the application of the present document. For dated references, only the edition cited applies. For non-specific references, the latest edition of the referenced document (including any amendments) applies.

[1] ETSI EN 301 783-1 (V1.2.1): "Electromagnetic compatibility and Radio Spectrum Matters (ERM); Land Mobile Service; Commercially available amateur radio equipment; Part 1: Technical characteristics and methods of measurement".

2.2 Informative references

The following referenced documents are not essential to the use of the present document but they assist the user with regard to a particular subject area**.** For non-specific references, the latest version of the referenced document (including any amendments) applies.

[i.1] Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999 on radio equipment and telecommunications equipment and the mutual recognition of their conformity (R&TTE Directive).

[i.2] Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations.

3 Definitions and abbreviations

3.1 Definitions

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

environmental profile: 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 Abbreviations

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

R&TTE	Radio and Telecommunications Terminal Equipment

4 Technical requirements specifications

4.1 Environmental profile

The environmental profile for operation of the equipment 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

4.2.1 Conducted spurious emissions

4.2.1.1 Antenna port in transmit mode

4.2.1.1.1 Definition

Spurious emissions are defined in EN 301 783-1 [1], clause 5.2.1.

4.2.1.1.2 Limits

The emissions of the antenna port in transmit mode shall not exceed the limits in EN 301 783-1 [1], clause 5.2.3, table 4.

4.2.1.1.3 Conformance

Conformance tests as defined in clause 5.2.1 shall be carried out.

4.2.1.2 Antenna port in receive or transmit standby mode

4.2.1.2.1 Definition

Spurious emissions are defined in EN 301 783-1 [1], clause 5.2.1.

4.2.1.2.2 Limits

The emissions of the antenna port in receive or transmit standby mode shall not exceed the limits in EN 301 783-1 [1], clause 5.2.3, table 5.

4.2.1.2.3 Conformance

Conformance tests as defined in clause 5.2.1 shall be carried out.

4.2.2 Radiated spurious emissions

4.2.2.1 Enclosure port in transmit mode

4.2.2.1.1 Definition

Spurious emissions are defined in EN 301 783-1 [1], clause 5.2.1.

4.2.2.1.2 Limits

The enclosure port emissions in transmit mode shall not exceed the limits in EN 301 783-1 [1], clause 5.2.3, table 6.

4.2.2.1.3 Conformance

Conformance tests as defined in clause 5.2.2 shall be carried out.

4.2.2.2 Enclosure port in receive or transmit standby mode

4.2.2.2.1 Definition

Spurious emissions are defined in EN 301 783-1 [1], clause 5.2.1.

4.2.2.2.2 Limits

The enclosure port emissions in receive or transmit standby mode shall not exceed the limits in EN 301 783-1 [1], clause 5.2.3, table 7.

4.2.2.2.3 Conformance

Conformance tests as defined in clause 5.2.2 shall be carried out.

4.2.3 Conducted RF immunity

4.2.3.1 Definition

The RF immunity of the equipment is defined in EN 301 783-1 [1], clause 5.3.1.

4.2.3.2 Limits

The RF immunity of the equipment shall not exceed the limits in EN 301 783-1 [1], clause 5.3.3.

4.2.3.3 Conformance

Conformance tests as defined in clause 5.3.1 may be carried out.

5 Testing for compliance with technical requirements

5.1 Environmental conditions for testing

5.1.1 EUT test frequencies

Conformity tests shall be performed on the frequencies as described in EN 301 783-1 [1], clause 4.2.

5.2 Essential radio test suites

5.2.1 Conducted spurious emissions

The measurements shall be performed as described in EN 301 783-1 [1], clause 5.2.2.1. The results obtained shall be compared to the limits in clauses 4.2.1.1.2 and 4.2.1.2.2 in order to prove compliance with the requirement.

5.2.2 Radiated spurious emissions

The measurements shall be performed as described in EN 301 783-1 [1], clause 5.2.2.2. The results obtained shall be compared to the limits in clauses 4.2.2.2.2 and 4.2.2.1.2 in order to prove compliance with the requirement.

5.3 Other test specifications

5.3.1 Conducted RF immunity

The measurements shall be performed as described in EN 301 783-1 [1], clause 5.3.2. The results obtained shall be compared to the limits in clause 4.2.3.2 in order to prove compliance with the requirement.

Annex A (normative): HS Requirements and conformance Test specifications Table (HS-RTT)

The HS Requirements and conformance Test specifications Table (HS-RTT) in table A.1 serves a number of purposes, as follows:

- it provides a statement of all the requirements in words and by cross reference to (a) specific clause(s) in the present document or to (a) specific clause(s) in (a) specific referenced document(s);
- it provides a statement of all the test procedures corresponding to those requirements by cross reference to (a) specific clause(s) in the present document or to (a) specific clause(s) in (a) specific referenced document(s);
- it qualifies each requirement to be either:
  - Unconditional: meaning that the requirement applies in all circumstances; or
  - Conditional: meaning that the requirement is dependant on the manufacturer having chosen to support optional functionality defined within the schedule.
- in the case of Conditional requirements, it associates the requirement with the particular optional service or functionality;
- it qualifies each test procedure to be either:
  - Essential: meaning that it is included with the Essential Radio Test Suite and therefore the requirement shall be demonstrated to be met in accordance with the referenced procedures;
  - Other: meaning that the test procedure is illustrative but other means of demonstrating compliance with the requirement are permitted.

Table A.1: HS Requirements and conformance Test specifications Table (HS-RTT)

Harmonized Standard EN 301 783-2 The following requirements and test specifications are relevant to the presumption of conformity under the article 3.2 of the R&TTE Directive						
Requirement			**Requirement Conditionality**		**Test Specification**	
No	**Description**	**Reference: Clause No**	**U/C**	**Condition**	**E/O**	**Reference: Clause No**
1	Antenna port in transmit mode	4.2.1.1	U		E	5.2.1
2	Antenna port in receive or transmit standby mode	4.2.1.2	U		E	5.2.1
3	Enclosure port limits in transmit mode	4.2.2.1	U		E	5.2.2
4	Enclosure port limits in receive or transmit standby mode	4.2.2.2	U		E	5.2.2
5	Conducted RF immunity	4.2.3	U		O	5.3.1

Key to columns:

Requirement:

No A unique identifier for one row of the table which may be used to identify a requirement or its test specification.

Description A textual reference to the requirement.

Clause Number Identification of clause(s) defining the requirement in the present document unless another document is referenced explicitly.

Requirement Conditionality:

U/C Indicates whether the requirement is to be *unconditionally* applicable (U) or is *conditional* upon the manufacturers claimed functionality of the equipment (C).

Condition Explains the conditions when the requirement shall or shall not be applicable for a technical requirement which is classified "conditional".

Test Specification:

E/O Indicates whether the test specification forms part of the Essential Radio Test Suite (E) or whether it is one of the Other Test Suite (O).

NOTE: All tests whether "E" or "O" are relevant to the requirements. Rows designated "E" collectively make up the Essential Radio Test Suite; those designated "O" make up the Other Test Suite; for those designated "X" there is no test specified corresponding to the requirement. The completion of all tests classified "E" as specified with satisfactory outcomes is a necessary condition for a presumption of conformity. Compliance with requirements associated with tests classified "O" or "X" is a necessary condition for presumption of conformity, although conformance with the requirement may be claimed by an equivalent test or by manufacturer's assertion supported by appropriate entries in the technical construction file.

Clause Number Identification of clause(s) defining the test specification in the present document unless another document is referenced explicitly. Where no test is specified (that is, where the previous field is "X") this field remains blank.

Annex B (informative): The EN title in the official languages

The enlargement of the European Union (EU) resulted in a requirement from the EU for a larger number of languages for the translation of the titles of Harmonized Standards and mandated ENs that are to be listed in the Official Journal to support the implementation of this legislation.

For this reason the title translation concerning the present document can be consulted via the e-approval application.

Annex C (informative): Bibliography

- ETSI EG 201 399: "Electromagnetic compatibility and Radio spectrum Matters (ERM); A guide to the production of candidate Harmonized Standards for application under the R&TTE Directive".

History

Document history				
V1.1.1	September 2000	Publication		
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