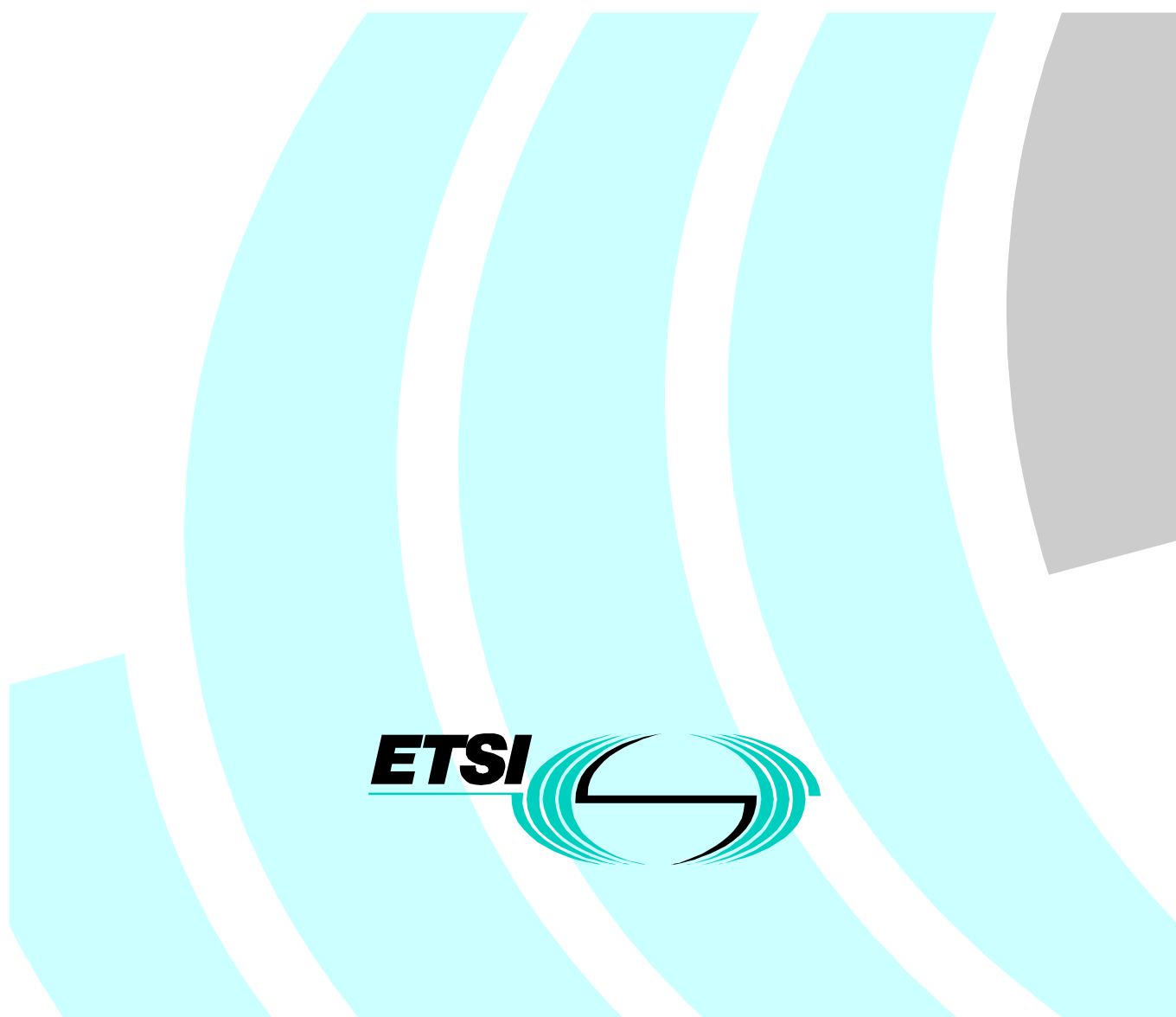


**Guidance on the identification of Harmonized Standards
and/or other technical specifications for Radio equipment and
Telecommunications Terminal Equipment (R&TTE)
covering requirements under Article 3.1 of Directive 1999/5/EC**



ReferenceDEG/DTA-000009

Keywordsregulation, health, safety, EMC

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Foreword

This ETSI Guide (EG) has been produced by ETSI Project Digital Terminals and Access (DTA) in collaboration with TC Safety and TC ERM WG EMC, and is now submitted for the ETSI standards Membership Approval Procedure.

Introduction

Purpose of the present document

The present document gives guidance on a set of Harmonized Standards referenced under the R&TTE Directive [1], Article 3.1(a) and (b). The modular structure shown in figure 1 covers all radio equipment and telecommunications terminal equipment. Each Harmonized Standard produced specifically for the R&TTE Directive [1] is a module in the structure (note that standards originally produced to support the LV Directive [2] or EMC Directive [3] do not follow this approach).

Description of the modular structure of Harmonized Standards for the R&TTE Directive

The left hand edge of the figure 1 shows the different subclauses of Article 3 of the R&TTE Directive [1]. The essential requirements under Article 3.1(a) (safety, etc.) and 3.1(b) (EMC) are addressed in the present document that applies to all equipment. The present document makes general cross-references to those standards already notified under the LV Directive [2] and EMC Directive [3] that are appropriate for radio and telecommunications terminal equipment.

For article 3.3 various horizontal boxes are shown. Dotted lines indicate that at the time of publication of the present document 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 3.1(b) 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 [3]. 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 3.1(a), the diagram shows the existing safety standards currently used under the LV Directive [2] 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 decisions without 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.

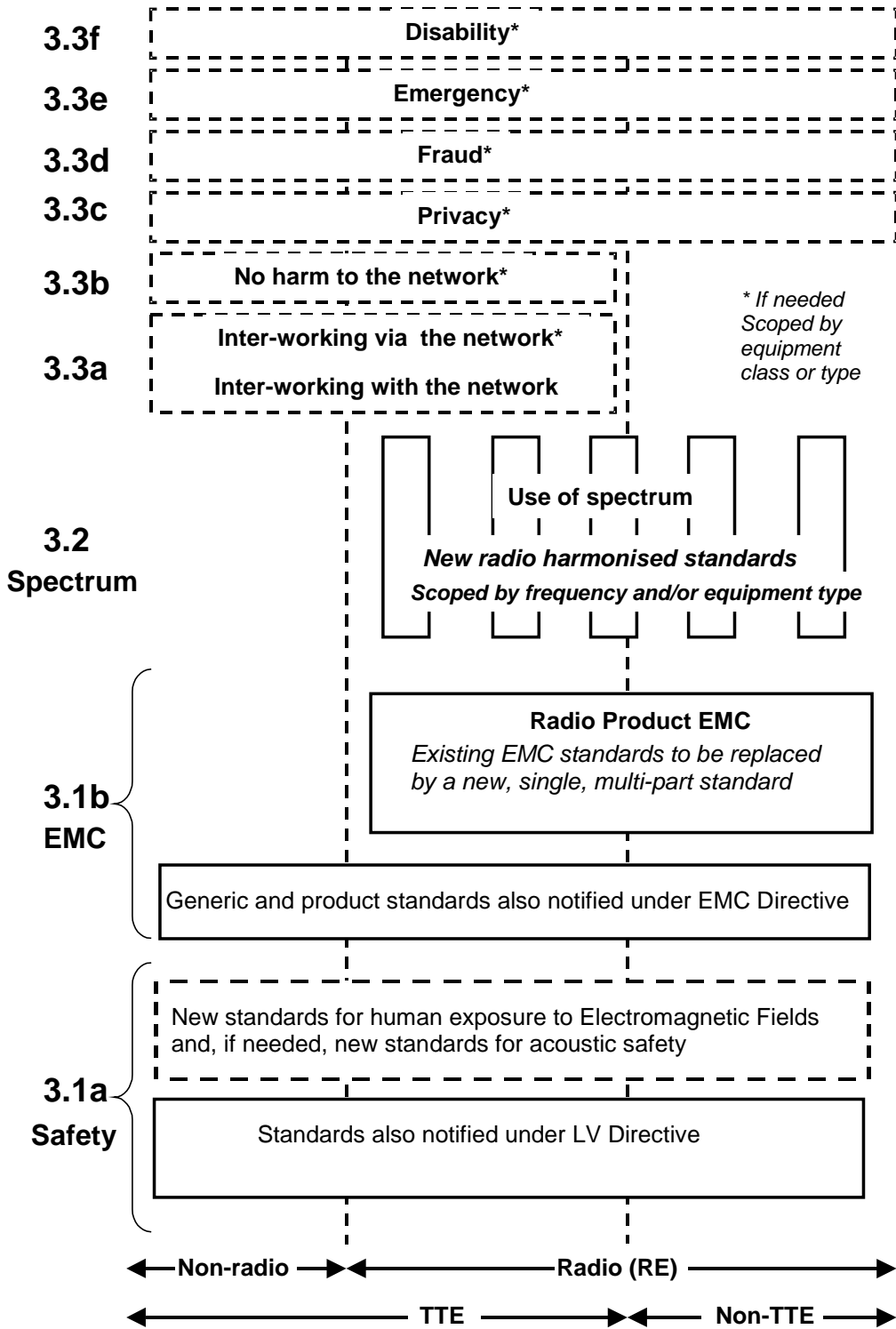


Figure 1: Modular structure for the various standards used under the R&TTE Directive

1 Scope

The present document gives guidance on the identification and application of Harmonized Standards and/or other technical specifications for Telecommunications Terminal Equipment (TTE) and to all Radio Equipment (RE) as defined in the R&TTE Directive [1], Article 1, Scope and aim.

The present document is intended to identify those Harmonized Standards, and/or other technical specifications, which may be used to determine a product's conformity with the provisions of Article 3.1(a) and 3.1(b) of the R&TTE Directive [1]. Other Harmonized Standards 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 the present document in addition.

Provisions contained in other European Directives are outside the scope of this present document.

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

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.

NOTE: The following EU Directives are referred to in the present document and form part of the guidance given herein. For brevity, foreshortened names are used within the body of the document but the complete designation is included below.

- [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. The present document uses the abbreviated term "R&TTE Directive".
- [2] Council Directive 73/23/EEC of 19 February 1973 on the harmonization of the laws of Member States relating to electrical equipment designed for use within certain voltage limits; as amended by Council Directive 93/68/EEC of 22 July 1993. The present document uses the abbreviated term "LV Directive".
- [3] Council Directive 89/336/EEC of 3 May 1989 on the approximation of the laws of the Member States relating to electromagnetic compatibility; as amended by Council Directive 92/31/EEC of 28 April 1992 and by Council Directive 93/68/EEC of 22 July 1993. The present document uses the abbreviated term "EMC Directive".
- [4] Council Recommendation 1999/519/EC: "Harmonised standards covering the safety aspects of electromagnetic fields (0 Hz to 300 GHz) generated by apparatus included in the scope of either the Low Voltage Directive 73/23/EEC (LVD) or the Radio Equipment and Telecommunications Terminal Equipment (R&TTE) Directive 1999/5/EC".
- [5] R210-002 (1993), CLC/TC 210: "Guide to generic standards".
- [6] EN 55022: "Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement".
- [7] EN 55024: "Information technology equipment - Immunity characteristics - Limits and methods of measurement".

- [8] EN 50082-1: "Electromagnetic compatibility - Generic immunity standard - Part 1: Residential, commercial and light industry".
- [9] EN 61000-3-2: "Electromagnetic compatibility (EMC) – Part 3: Limits - Section 2: Limits for harmonic current emissions (equipment input current up to and including 16 A per phase)".
- [10] EN 61000-3-3: "Electromagnetic compatibility (EMC) – Part 3: Limits – Section 3: Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current up to and including 16 A".

3 Definitions and abbreviations

3.1 Definitions

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

3.2 Abbreviations

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

CENELEC	Comité Européen de Normalisation Electrotechnique
CEN	Comité Européen de Normalisation
EMC	ElectroMagnetic Compatibility
ETSI	European Telecommunications Standards Institute
LV	Low Voltage
OJEC	Official Journal of the European Communities
R&TTE	Radio equipment and Telecommunications Terminal Equipment
RE	Radio Equipment
TTE	Telecommunications Terminal Equipment

4 Identification of Harmonized Standards and/or other technical specifications for protection of health and safety (R&TTE Directive Article 3.1(a))

4.1 General

Article 3.1 of the R&TTE Directive [1] contains the following essential requirement:

"The following essential requirements are applicable to all apparatus:

- a) the protection of the health and the safety of the user and any other person, including the objectives with respect to safety requirements contained in Directive 73/23/EEC [2], but with no voltage limit applying".

Article 20.3 of the R&TTE Directive [1] contains the following essential requirement:

"The provisions of Directive 73/23/EEC [2] shall not apply to apparatus falling within the scope of this Directive, with the exceptions of the objectives with respect to safety requirements in Article 2 and Annex I and the conformity assessment procedure in Annex III, Section B, and Annex IV to Directive 73/23/EEC [2], as from 8 April 2000".

Compliance with any particular standard identified in the present document, regarding health and safety is not a requirement of the present document. If a manufacturer chooses to use one or more standards for demonstrating compliance with the requirements of the R&TTE Directive [1], as transposed into national law, then the guidance of subclause 4.2 of the present document should be followed.

4.2 Use of standards for Health and Safety

The R&TTE Directive [1] and the LV Directive [2] reference standards in different ways. It is not a requirement of either Directive to comply with one or more standards.

Harmonized Standards referenced in the Official Journal of the European Communities are produced by CEN, CENELEC or ETSI. Other regional and global standards bodies also produce standards covering health and safety issues. It is the responsibility of the manufacturer to verify that the particular standard, or standards, chosen meet (individually or collectively) the essential requirements of the R&TTE Directive [1] and, by reference, the safety objectives of the LV Directive [2].

NOTE 1: The term "reference to the chosen standard" in 4.2.1 and 4.2.2 means that the title of the standard, together with details of any amendments, the date of publication, and the date of cessation has been published in the OJEC. The date of cessation determines whether a particular version of a standard, or any of its amendments, still offers a presumption of conformity.

NOTE 2: At the time of publication of this document there are no Harmonized Standards covering the requirements for limitations to electromagnetic fields. Attention of readers is drawn to Council Recommendation 1999/519/EC [4] dated 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz).

See Part A of the Bibliography for examples of standards relating to health and/or safety.

4.2.1 Radio Equipment

A supplier or manufacturer may choose to use one or more standards to demonstrate conformity with the essential requirements of the R&TTE Directive [1] in respect to the protection of the health and safety of users and any other persons.

They should verify that:

- a) the reference to the chosen standard has been published in the Official Journal of the European Communities in relation to the R&TTE Directive [1], and the scope of the standard is applicable to the type of equipment to be supplied; or
- b) where no list of standards has been published in the Official Journal of the European Communities in relation to the R&TTE Directive [1], then it is recommended that manufacturers meet one of the Harmonized Standards already published in connection with LV Directive [2]; or
- c) where there are no existing Harmonized Standards under either the R&TTE Directive [1] or the LV Directive [2] for a particular hazard, then manufacturers can use a European pre-standard or other document in respect to that hazard.

NOTE: There may be other radio telecommunications terminals used in special circumstances or environments where other essential requirements in other Directives may apply.

4.2.2 Non-radio Telecommunications Terminal Equipment

A supplier or manufacturer may choose to use one or more standards to demonstrate conformity with the essential requirements of the R&TTE Directive [1] in respect to the protection of the health and safety of users and any other persons.

They should verify that:

- a) the reference to the chosen standard has been published in the Official Journal of the European Communities in relation to the R&TTE Directive [1], and the scope of the standard is applicable to the type of equipment to be supplied; or
- b) where no list of standards has been published in the Official Journal of the European Communities in relation to the R&TTE Directive [1], then it is recommended that manufacturers meet one of the Harmonized Standards already published in connection with LV Directive [2]; or

- c) where there are no existing Harmonized Standards under either the R&TTE Directive [1] or the LV Directive [2] for a particular hazard, then manufacturers can use a European pre-standard or other document in respect to that hazard.

NOTE: There may be other non-radio telecommunications terminals used in special circumstances or environments where other essential requirements in other Directives may apply.

5 Identification of Harmonized Standards and/or other technical specifications for EMC (R&TTE Directive Article 3.1(b))

5.1 General

Article 3.1 of the R&TTE Directive [1] contains the following essential requirement:

"The following essential requirements are applicable to all apparatus:

- a) the protection requirements with respect to electromagnetic compatibility contained in Directive 89/336/EEC.

Further, Article 20.2 of the R&TTE Directive [1] states the following, quote:

"2. This Directive is not a specific directive within the meaning of Article 2(2) of Directive 89/336/EEC. The provisions of Directive 89/336/EEC [3] shall not apply to apparatus falling within the scope of this Directive, with the exception of the protection requirements in Article 4 and Annex III and the conformity assessment procedure in Article 10(1) and (2) of, and Annex I to, Directive 89/336/EEC [3], as from 8 April 2000".

unquote.

Due to the various conformity assessment procedures set out in the R&TTE Directive [1], the manufacturer or supplier has the opportunity to choose one or more of the standards and other technical specifications identified in the Bibliography, Part B, for demonstrating compliance with the related requirements of the R&TTE Directive [1]. Thus, compliance with any particular standard identified in the present document, regarding EMC, does not establish any mandatory requirement of the present document.

If a manufacturer chooses to apply one or more of the standards and technical specifications identified in the Bibliography, Part B, for demonstrating compliance with the requirements of the R&TTE Directive [1], as transposed into national law, then the guidance of subclause 5.2 of the present document should be followed.

5.2 Application of standards for EMC for conformity assessment purposes under the R&TTE Directive

The R&TTE Directive [1] and the EMC Directive [3] reference standards in different ways. Due to the various available conformity assessment procedures under these directives, it is not a requirement of either directive to comply with one or more standards.

Harmonized Standards referenced in the Official Journal of the European Communities (OJEC) are normally produced, with an adequate mandate of the European Commission, by CEN, CENELEC or ETSI. Other regional and global standards bodies may also produce standards covering EMC related issues.

It is the responsibility of the manufacturer to verify that the particular standard(s) and/or other technical specification(s) chosen cover (individually or collectively) the essential requirements of the R&TTE Directive [1], Article 3.1(b) and, by reference, the essential protection requirements of the EMC Directive [3].

NOTE 1: The term "reference to the chosen standard" in subclauses 5.2.1 and 5.2.2 does not mean only that the title of the standard has been published in the OJEC referring to a Council Directive, but also that the date of publication and application adapted by the relevant standardization body, and in case of Harmonized Standards, the date of cessation issued by the European Commission including that for any relevant amendment still offers a presumption of conformity (i.e. for a standard published with reference to the EMC Directive [3], check the "date of cessation" column in the relevant Communication of the European Commission in the OJEC).

NOTE 2: The CENELEC technical report R 210-002 [5] offers useful information on the practical use of harmonized standards under the EMC Directive.

For examples of standards and other technical specifications relating to EMC, see Part B of the Bibliography.

5.2.1 Radio Equipment (RE) and Telecommunication Terminal Equipment (TTE) also containing radio equipment

Applying the relevant conformity assessment procedures set out in the R&TTE Directive, a supplier or manufacturer may choose to use one or more standards to demonstrate conformity with the essential requirements of the R&TTE Directive in respect of EMC.

In this case they should verify that:

- a) the reference to the chosen standard has been published in the Official Journal of the European Communities in relation to Directive 1999/5/EC [1], and the scope of the standard is applicable to the type of equipment to be supplied; or
- b) where there are no applicable standards harmonized in relation to the R&TTE Directive the harmonized standards applicable in relation to the EMC Directive [3] should be applied, providing that the scope is applicable to the type of equipment to be supplied; or
- c) where there are no Harmonized Standards under either the R&TTE Directive [1] or the EMC Directive [3] for a particular type of equipment, then the manufacturer may use a European pre-standard or other technical specification in respect to that type of equipment.

A comprehensive list of available harmonized and non-harmonized EMC standards and other technical EMC specifications is contained in the Bibliography, Part B.

The listed standards and specifications with relevance for the particular type of the product should be applied with the following preference:

- 1) application of the relevant Harmonized Standards (either with reference to the R&TTE Directive [1], or to the EMC Directive [3]); or, if such standards are not available;
- 2) application of suitable voluntary, not yet harmonized standards; or, if such standards are not available;
- 3) application of suitable European pre-standards; or if such draft standards are not available;
- 4) application of other non-harmonized technical EMC specifications.

It should be noted that product EMC standards take precedence in application before product family EMC standards. If no product or product family EMC standards are available, generic type EMC standards may be applied instead.

Dependent on the type of equipment considered, different conformity assessment procedures as set out in the Annexes II, III, IV, or V of the R&TTE Directive [1] shall be used.

At the discretion of the manufacturer, for radio equipment and telecommunications terminal equipment also including radio equipment the provisions of Annex III, IV, or V shall apply. The application of suitable Harmonized Standards as under a) or b) simplifies the performance of the necessary conformity test due to the fact that these Harmonized Standards contain all essential radio test suites needed. Where the manufacturer chooses to apply suitable European pre-standards or other technical specifications as under c), then the identification of the test suites that are considered to be essential is the responsibility of a notified body chosen by the manufacturer (see Annex III and IV, respectively, of the R&TTE Directive [1]).

Alternatively, for all types of equipment in the scope of the R&TTE Directive [1] the conformity assessment procedures set out in the EMC Directive [3], Articles 10.1 or 10.2, may be used to verify conformity to the essential requirements related to EMC of the R&TTE Directive [1].

5.2.2 Telecommunications Terminal Equipment (TTE) not containing radio equipment

Applying the relevant conformity assessment procedures set out in the R&TTE Directive, a supplier or manufacturer may choose to use one or more standards and/or other technical specifications to demonstrate conformity with the essential requirements of the R&TTE Directive in respect of EMC.

In this case they should verify that:

- a) the reference to the chosen standard has been published in the Official Journal of the European Communities in relation to Directive 1999/5/EC [1], and the scope of the standard is applicable to the type of equipment to be supplied; or
- b) where there are no applicable standards harmonized in relation to the R&TTE Directive [1] the following harmonized standards applicable in relation to the EMC Directive [3] should be used, providing that the scope is applicable to the type of equipment to be supplied:
 - emission requirements: EN 55022 [6] (1994), still applicable until 31 July 2001 (doc); or
EN 55022 [6] (1998) (this includes the emission requirements at the telecommunication ports).
 - immunity requirements: EN 55024 [7]; or
EN 50082-1 [8] (1992), still applicable until 30 June 2001 (doc); or
EN 50082-1 [8] (1997).
 - low frequency EM phenomena:
EN 61000-3-2 [9] (harmonics); and
EN 61000-3-3 [10] (voltage fluctuations and flicker).

or

- c) at the manufacturers discretion, the harmonized EMC standards listed above may not be applied and the manufacturer may choose other EMC specifications to verify conformity to the protection aims of the R&TTE Directive [1] in regard to EMC.

The present document does not add or remove requirements for non-radio telecommunications terminal equipment compared to those that would apply under the EMC Directive [3].

Dependent on the type of equipment considered, different conformity assessment procedures as set out in the Annexes II, III, IV, or V of the R&TTE Directive [1] shall be used.

At the discretion of the manufacturer, for telecommunications equipment not including radio equipment the provisions of Annex II, IV, or V shall apply.

Alternatively, for all types of equipment in the scope of the R&TTE Directive [1] the conformity assessment procedures set out in the EMC Directive [3], Articles 10.1 or 10.2, may be used to verify conformity to the essential requirements related to EMC of the R&TTE Directive [1].

Bibliography

The following material, though not specifically referenced in the body of the present document (or not publicly available), gives supporting information.

Part A Documents with possible relevance to Article 3.1(a) of the R&TTE Directive

- EN 60950: "Safety of information technology equipment".
- EN 60065: "Audio, video and similar electronic apparatus: Safety requirements".
- ETSI EG 201 212: "Electrical safety; Classification of interfaces for equipment to be connected to telecommunication networks".
- EN 60825: series: "Safety of laser products", including:
 - "Part 1: Equipment classification, requirements and user's guide".
 - "Part 2: Safety of optical fibre communications systems".
- EN 41003: "Particular safety requirement for equipment to be connected to telecommunications networks".
- EN 60215: "Safety requirements for radio transmitting equipment".
- IEC Guide 112: "Guide on the safety of multimedia equipment".
- ES 59005: "Considerations for the evaluation of human exposure to Electromagnetic Fields (EMFs) from Mobile Telecommunication Equipment (MTE) in the frequency range 30 MHz - 6 GHz".

NOTE: CENELEC is in preparation of measurement methods for mobile phones electromagnetic exposure measurements with current up-to-date information. This CENELEC standard ES 59005 will become obsolete when the new standards are published in near future and will be proposed to be withdrawn from the CENELEC list of publications.

- EN 50083: "Cabled distribution systems for television and sound signals Part 1: Safety Requirements".
- EN 60355 Series: "Safety of household and similar electrical appliances".
- 1999/519/EC: "Harmonised standards covering the safety aspects of electromagnetic fields (0 Hz to 300 GHz) generated by apparatus included in the scope of either the Low Voltage Directive 73/23/EEC (LVD) or the Radio Equipment and Telecommunications Terminal Equipment (R&TTE) Directive 1999/5/EC".

Part B Documents with possible relevance to Article 3.1(b) of the R&TTE Directive

Harmonized EMC standards:

- ETSI ETS 300 279 (1997): "Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for Private land Mobile Radio (PMR) and ancillary equipment (speech and/or non-speech)".
- ETSI ETS 300 329 (1997): "Digital Enhanced Cordless Telecommunications (DECT); Electro-Magnetic Compatibility (EMC) for DECT equipment".
- ETSI ETS 300 340 (1997): "Radio Equipment and Systems (RES); ElectroMagnetic Compatibility (EMC) for European Radio Message System (ERMES) paging receivers".
- ETSI EN 300 385 (1996): "Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for fixed radio links and ancillary equipment".

- ETSI ETS 300 445 (1996): "Radio Equipment and Systems (RES); ElectroMagnetic Compatibility (EMC) standard for wireless microphones and similar Radio Frequency (RF) audio link equipment".
- ETSI ETS 300 446 (1997): "Radio Equipment and Systems (RES); ElectroMagnetic Compatibility (EMC) standard for second generation Cordless Telephone (CT2) apparatus operating in the frequency band 864,1 MHz to 868,1 MHz, including public access services".
- ETSI ETS 300 447 (1997): "Radio Equipment and Systems (RES); ElectroMagnetic Compatibility (EMC) standard for VHF FM broadcasting transmitters".
- ETSI ETS 300 673 (1997): "Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for Very Small Aperture Terminal (VSAT), Satellite News Gathering (SNG), Satellite Interactive Terminals (SIT) and Satellite User Terminals (SUT) Earth Stations operated in the frequency ranges between 4 GHz and 30 GHz in the Fixed Satellite Service (FSS)".
- ETSI ETS 300 680-1 (1997): "Radio Equipment and Systems (RES); ElectroMagnetic Compatibility (EMC) standard for Citizens Band (CB) radio and ancillary equipment (speech and/or non-speech); Part 1: Angle-modulated".
- ETSI ETS 300 680-2 (1997): "EMC standard for Citizen's Band (CB) Radio and ancillary equipment (speech and/or non-speech); Part 2: Double Side Band (DSB) and/or Single Side Band (SSB)".
- ETSI ETS 300 682 (1997): "Radio Equipment and Systems (RES); ElectroMagnetic Compatibility (EMC) standard for On-Site Paging equipment".
- ETSI ETS 300 683 (1997): "Radio Equipment and Systems (RES); ElectroMagnetic Compatibility (EMC) standard for Short Range Devices (SRD) operating on frequencies between 9 kHz and 25 GHz".
- ETSI ETS 300 684 (1997): "Radio Equipment and Systems (RES); ElectroMagnetic Compatibility (EMC) standard for commercially available amateur radio equipment".
- ETSI ETS 300 741 (1998): "Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for wide-area paging equipment".
- ETSI ETS 300 826 (1997): "Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for 2,4 GHz wideband transmission systems and High Performance Radio Local Area Network (HIPERLAN) equipment".
- ETSI EN 300 827 (1998): "Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for Terrestrial Trunked Radio (TETRA) and ancillary equipment".
- ETSI EN 300 831 (1998): "Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) for Mobile Earth Stations (MES) used within Satellite Personal Communications Networks (S-PCN) operating in the 1,5/1,6/2,4 GHz and 2 GHz frequency bands".
- EN 55022 (1994): "Limits and methods of measurements of radio disturbance characteristics of information technology equipment".
- EN 55022 (1998): "Limits and methods of measurements of radio disturbance characteristics of information technology equipment".
- EN 50082-1 (1992): "Electromagnetic compatibility – Generic immunity standard – Part 1: Residential, commercial and light industry".
- EN 50082-1 (1997): "Electromagnetic compatibility – Generic immunity standard – Part 1: Residential, commercial and light industry".
- EN 55024: "Information technology equipment – Immunity characteristics – Limits and methods of measurement".
- EN 61000-3-2: "Electromagnetic compatibility (EMC) – Part 3: Limits - Section 2: Limits for harmonic current emissions (equipment input current up to and including 16 A per phase)".
- EN 61000-3-3: "Electromagnetic compatibility (EMC) – Part 3: Limits – Section 3: Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current up to and including 16 A".

EMC standards not having harmonized status:

- ETSI ETS 300 279 (1999): "Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for Private land Mobile Radio (PMR) and ancillary equipment (speech and/or non-speech)".
- ETSI EN 300 339 (V1.1): "Electromagnetic compatibility and Radio spectrum Matters (ERM); General ElectroMagnetic Compatibility (EMC) for radio communications equipment".
- ETSI ETS 300 342-1 (1997): "Radio Equipment and Systems (RES); ElectroMagnetic Compatibility (EMC) for European digital cellular telecommunications system (GSM 900 MHz and DCS 1 800 MHz); Part 1: Mobile and portable radio and ancillary equipment".
- ETSI ETS 300 342-2 (1994): "Radio Equipment and Systems (RES); ElectroMagnetic Compatibility (EMC) for European digital cellular telecommunications system (GSM 900 MHz and DCS 1 800 MHz); Part 2: Base station radio and ancillary equipment".
- ETSI ETS 300 342-3 (1999): "Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) for European digital cellular telecommunications system (GSM 900 MHz and DCS 1 800 MHz); Part 3: Base station radio and ancillary equipment and repeaters meeting Phase 2 GSM requirements".
- ETSI EN 300 385 (V1.2): "Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for fixed radio links and ancillary equipment". (extended scope)
- ETSI ETS 300 717 (1998): "Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) for analogue cellular radio communications equipment; Mobile and portable equipment".
- ETSI EN 300 830 (V1.1): "Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) for Receive Only Mobile Earth Stations (ROMES) operating in the 1,5 GHz band providing data communications".
- ETSI EN 300 831 (V1.2): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic Compatibility (EMC) for Mobile Earth Stations (MES) used within Satellite Personal Communications Networks (S-PCN) operating in the 1,5/1,6/2,4 GHz and 2 GHz frequency bands". (extended scope)
- ETSI EN 300 832 (V1.1): "Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) for Mobile Earth Stations (MES) providing Low Bit Rate Data Communications (LBRDC) using satellites in Low Earth Orbits (LEO) operating in frequency bands below 1 GHz".
- ETSI EN 301 011 (V1.1): "Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for Narrow-Band Direct-Printing (NBDP) NAVTEX receivers operating in the maritime mobile service".
- ETSI EN 301 091 (V1.1): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Road Transport and Traffic Telematics (RTTT); Technical characteristics and test methods for radar equipment operating in the 76 GHz to 77 GHz band".

Draft EMC standards suitable for the performance of EMC conformity tests:

- ETSI EN 300 342-1 (1999): "EMC for European digital cellular telecommunication systems (GSM 900 MHz and DCS 1800 MHz); Part 1: Mobile and portable radio and ancillary equipment". (Final Draft covering equipment meeting Phase 2 and 2+)
- ETSI EN 300 342-3 (1999): "EMC Standard for digital cellular telecommunications system (GSM 900 MHz and DCS 1 800 MHz); Part 3: Base station radio and ancillary equipment and repeaters meeting Phase 2 & Phase 2+ GSM requirements". (Final Draft)
- ETSI EN 300 673 (1999): "Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for Very Small Aperture Terminal (VSAT), Satellite News Gathering (SNG), Satellite Interactive Terminals (SIT) and Satellite User Terminals (SUT) Earth Stations operated in the frequency ranges between 4 GHz and 30 GHz in the Fixed Satellite Service (FSS)". (Final Draft)
- ETSI EN 300 683 (1999): "EMC standard for Short Range Devices (SRD)". (Final Draft)

- ETSI EN 301 670 (1999): "EMC for radio paging equipment". (Final Draft, succeeding standard for ETS 300 340, ETS 300 741 and ETS 300 682)
- ETSI EN 300 827 (1999): "Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for Terrestrial Trunked Radio (TETRA) and ancillary equipment". (Final Draft)

EMC standards in the ETSI work programme of TC ERM which will be available soon:

- ETSI EN 301 489: "EMC standard for radio equipment and services", currently comprising:
 - Part 1: "Common technical requirements";
 - Part 2: "Specific conditions for radio paging equipment";
 - Part 3: "Specific conditions for Short-Range Devices (SRD) operating on frequencies between 9 kHz and 25 GHz";
 - Part 4: "Specific conditions for fixed radio links and ancillary equipment and services";
 - Part 5: "Specific conditions for Private land Mobile Radio (PMR) and ancillary equipment (speech and non-speech)";
 - Part 6: "Specific conditions for Digital Enhanced Cordless Telephone (DECT) equipment";
 - Part 7: "Specific conditions for mobile and portable radio and ancillary equipment of digital cellular radio telecommunications systems";
 - Part 8: "Specific conditions for base station radio, ancillary equipment, and repeaters meeting Phase 2 GSM requirements of digital cellular radio telecommunications systems (GSM and DCS)";
 - Part 9: "Specific conditions for wireless microphones and similar Radio Frequency (RF) audio link equipment";
 - Part 10: "Specific conditions for Cordless Telephone (CT1/CT1+ and CT 2) equipment";
 - Part 11: "Specific conditions for VHF FM broadcast transmitters";
 - Part 12: "Specific conditions for Very Small Aperture Terminal (VSAT), Satellite News Gathering (SNG), Satellite Interactive Terminals (SIT) and Satellite User Terminals (SUT) Earth Stations operated in the frequency ranges between 4 GHz and 30 GHz in the Fixed Satellite Service (FSS)";
 - Part 13: "Specific conditions for Citizens' Band (CB) radio and ancillary equipment (speech and non-speech)";
 - Part 15: "Specific conditions for commercially available amateur radio equipment";
 - Part 16: "Specific conditions for mobile and portable radio and ancillary equipment of analogue cellular radio telecommunications systems";
 - Part 17: "Specific conditions for 2,4 GHz wideband transmission systems and HIgh PERFORMANCE Radio Local Area Network (HIPERLAN) equipment";
 - Part 18: "Specific conditions for Terrestrial Trunked Radio (TETRA) and ancillary equipment";
 - Part 19: "Specific conditions for Receive Only Mobile Earth Stations (ROMES) operating in the 1,5 GHz band providing data communications";
 - Part 20: "Specific conditions for Mobile Earth Stations (MES) used in the Mobile Satellite radio services (MSS)";
 - Part 22: "Specific conditions for ground based aeronautical VHF radiocommunications equipment".

History

Document history		
V1.1.1	June 2000	Membership Approval Procedure MV 20000818: 2000-06-20 to 2000-08-18