

**Fixed Radio Systems;
Point-to-Point and Point-to-Multipoint
Equipments and Antennas;
Identification of European standards (EN), applicable
to fixed radio systems, for the essential requirements
under the article 3.1 of the 99/05/EC Directive**



Reference

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Foreword

This ETSI Guide (EG) has been produced by ETSI Technical Committee Transmission and Multiplexing (TM).

As developed in the introduction, the present document is a guide to the interpretation of the requirements under article 3.1 of the 1999/05/EC [1] Directive.

This document is complementary to the Harmonized Standards EN 301 751 V1 [9] (currently being prepared as DEN/TM-04090) and EN 301 753 V1 [10] (being prepared as DEN/TM-04091) which covers the essential requirements under article 3.2 of the 1999/05/EC [1] Directive, for point-to-point and point-to-multipoint equipment and antennas respectively.

Introduction

Fixed Service Digital Radio systems, used in European countries, are presently referred to in a relatively large number of specific ETSI standards.

From the point of view of essential requirements under the 1999/05/EC [1] Directive, all these systems are very similar in the "principles of the parameters", therefore they should be subject to same requirements under article 3.1 of the Directive.

ETSI has designed a modular structure for the standards. Each standard is a module in the structure. The modular structure is shown in figure 1.

The present document, for fixed radio systems, is aligned to that modular structure and is relevant only to the essential requirements under the article 3.1. It gives the reference to the relevant set of ETSI and CEN/CENELEC standards which contain the actual requirements and relevant test methods for the declaration of conformity to the essential requirements.

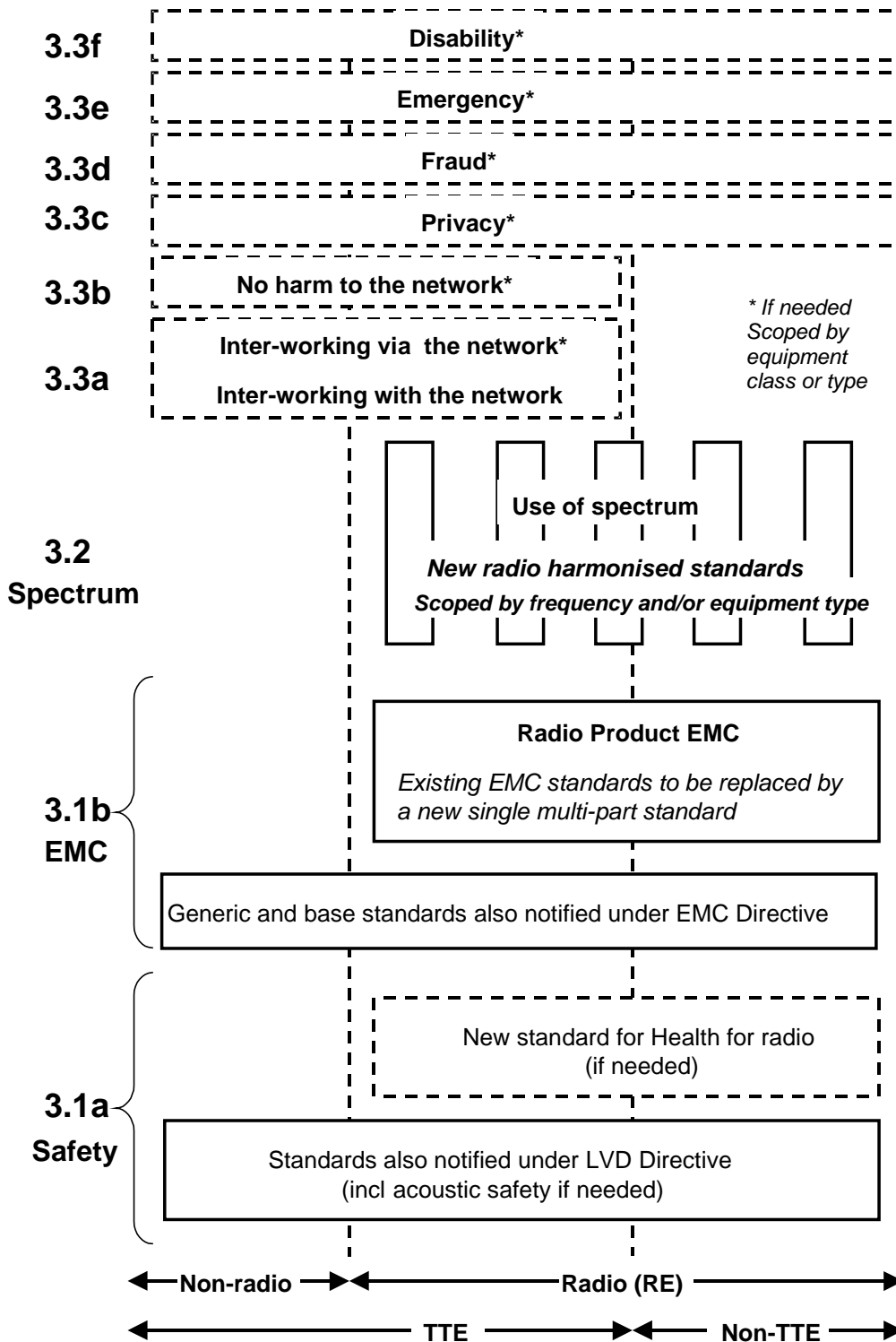


Figure 1: Modular structure for the various standards used under the R&TTE Directive

The left hand edge of the figure shows the different subclauses of article 3 of the Directive.

For article 3.3 various horizontal boxes are shown. Their dotted lines indicate that no essential requirements in these areas have yet been adopted by the Commission. If such essential requirements are adopted, they will be elaborated in 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. 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 base standards currently used under the EMC Directive. The parts of this new standard will become available in the second half of 2000, and the existing separate 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 LVD Directive and the possibility of a new standard on health relating to radio emissions.

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

The modular approach has been taken because:

- it minimizes the number of standards needed. Because equipment may 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.

1 Scope

It is not in the scope of the present document to indicate original requirements in the field of health, safety and electromagnetic compatibility (EMC) that are under responsibility of other technical bodies.

The present document aims only to identify, among those already available, the ones that should generally apply to Fixed Radio Systems (FRS) in the field of essential requirements of Directive 1999/05/EC [1] (R&TTE Directive) for:

- article 3.1 (a), which states that "...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 [11], but with no voltage limit applying" is an essential requirement applicable to all apparatus;
- article 3.1 (b), which states that "... the protection requirements with respect to electro-magnetic compatibility contained in Directive 89/336/EEC [12] " is an essential requirement applicable to all apparatus;

This EG offers, for all fixed radio products, the common view of the responsible technical body for the presumption of conformity to the essential requirements under article 3.1, when following the conformity assessment option through an harmonized standard.

The provision for essential requirements under article 3.2, is subject of separate standards.

The provision for essential requirements under article 3.3, if possibly requested by TCAM, will be subject to a separate standard(s).

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.

- [1] Directive 1999/05/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.
- [2] CENELEC EN 60215: "Safety requirements for radio transmitting equipments".
- [3] CENELEC EN 60950: "Safety of information technology equipment".
- [4] CENELEC EN 60825-2 (1994) and A1 (1997): "Safety of laser products - Part 2: Safety of optical fibre communication systems".
- [5] ETSI EN 300 385: "Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for fixed radio links and ancillary equipment".
- [6] ETSI EN 301 489-1: "Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements".
- [7] ETSI EN 301 489-4: "Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 4: Specific requirements for fixed radio links and ancillary equipment and services"

- [8] ETSI ETS 300 385 and A1: "Radio Equipment and Systems (RES); ElectroMagnetic Compatibility (EMC) standard for digital fixed radio links and ancillary equipment with data rates at around 2 Mbit/s and above".
- [9] ETSI EN 301 751: "Fixed Radio Systems; Point-to-Point equipments and antennas; [Candidate] Generic harmonized standard for Point-to-Point digital fixed radio systems and antennas covering the essential requirements under article 3.2 of the 99/05/EC Directive".
- [10] ETSI EN 301 753: "Fixed Radio Systems; Point-to-Multipoint Equipments and Antennas; [Candidate] Generic Harmonised Standard for Point-to-Multipoint digital fixed radio systems and antennas covering the essential requirements under article 3.2 of the 99/05/EC Directive".
- [11] 73/23/EEC: "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."
- [12] 89/336/EEC: "Council Directive of 3 May 1989 on the approximation of the laws of the Member States relating to electromagnetic compatibility".
- [13] ETSI ETS 300 385: "Radio Equipment and Systems (RES); ElectroMagnetic Compatibility (EMC) standard for digital fixed radio links and ancillary equipment with data rates at around 2 Mbit/s and above".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the following terms and definitions apply:

Conformity assessment procedure: see 1999/05/EC [1] Directive annexes II, III, IV and V

Radio Equipment (article 2 of 1999/05/EC [1] Directive): Radio equipment means a product, or relevant component thereof, capable of communication by means of the emission and/or reception of radio waves utilizing the spectrum allocated to terrestrial/space radiocommunication

3.2 Abbreviations

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

EC OJ	European Community Official Journal
FRS	Fixed radio systems
R&TTE	Radio equipments and telecommunication terminal equipments
RE	Radio equipments

4 Essential requirements

4.1 Article 3.1 a): the protection of the health and the safety

4.1.1 General essential requirements for safety protection

For radio equipments, but excluding antenna systems and antenna feeders, intended for being operated only by trained personnel (e.g. in telecommunication centres or similar restricted areas) CENELEC EN 60215 [2] apply.

For other cases, at the date of the publishing of the present document there are no specific safety standards for radio equipments (RE).

However for general safety requirements, not related to the radio frequency emissions, but to the common usage by any untrained customer or operator, CENELEC EN 60950 [3] apply, even if radio equipments are not specifically in its scope.

Equipments providing optical interface are also subject to CENELEC EN 60825-2, which is also referenced by CENELEC EN 60950 [3].

Any equivalent or more detailed standard, specifically applicable to fixed radio equipments and possibly published in the European Community Official Journal (EC OJ) under the R&TTE directive in a later date, could supersede the above requirement by the date of implementation eventually provided in the EC OJ.

Any test carried out to assess compliance to essential requirements for safety protection, test report and/or declaration of conformity, required to fulfil any Conformity assessment procedure foreseen by the 1999/05EC [1] Directive for radio equipments, should be carried-out with the same principles and procedures foreseen by the above standards.

4.1.2 Essential requirements for protection of health

Additional requirements for the health of the user or other persons specific for radio equipment may apply: presently there are no identified requirements and, if they would come up, they will be presented in separate harmonized standard(s) possibly produced by the relevant technical body and published under the R&TTE Directive.

For radio equipment not within in the scope of any such Harmonized Standard there are no essential technical requirements for the protection of the health of the user or any other person.

4.2 Article 3.1 b): the protection requirements with respect to electromagnetic compatibility

All fixed radio systems (Note 1) should comply with EN 300 385 [5] or to relevant parts of the forthcoming multipart standard EN 301 489-1 [6] and EN 301 489-4 [7], produced by the WG ERM/EMC, intended to become harmonized standard and possibly published under the R&TTE Directive and superseding ETS 300 385 [13] and EN 300 385 [5] (Note 2).

NOTE 1: ETS 300 385 [13] plus A1 presently published in the EC-OJ under the EMC Directive, covers formally only P-P equipments with capacity equal or above 2 Mbit/s.

NOTE 2: EN 301 489-1 [6] and EN 301 489-4 [7] contain the same technical requirements and test methods, for all fixed radio systems, as the EN 300 385 [5]; however the latter will remain a voluntary ETSI standard and will not be published neither under EMC Directive nor under R&TTE Directive.

ETS 300 385 [13] (plus A1) and EN 300 385 [5] will likely be withdrawn, in due time, after EN 301 489 will be published in the EC-OJ. Any test, carried out to generate the test report and/or declaration of conformity, required to fulfil any Conformity assessment procedure foreseen by the 1999/05/EC [1] Directive for radio equipments, should be carried-out with the same principles and procedures foreseen by the above standards.

History

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V1.1.1	May 2000	Publication