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Elektromagnetna združljivost (EMC) in zadeve v zvezi z radijskim spektrom (ERM) - Harmonizirani EN za brezvrvilne telefone CT 1 in CT1+, ki zajema bistvene zahteve člena 3.2 direktive R&TTE

Electromagnetic compatibility and Radio Spectrum Matters (ERM); Harmonized EN for CT1 and CT1+ cordless telephone equipment covering essential requirements under article 3.2 of the R&TTE directive

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Electromagnetic compatibility and Radio Spectrum Matters (ERM); Harmonized EN for CT1 and CT1+ cordless telephone equipment covering essential requirements under article 3.2 of the R&TTE directive

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Foreword

This Candidate Harmonized European Standard (Telecommunications series) has been produced by ETSI Technical Committee Electromagnetic compatibility and Radio spectrum Matters (ERM).

The present document has been produced by ETSI in response to a mandate from the European Commission issued under Council Directive 98/34/EC [7] 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 [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").

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Date of latest publication of new National Standard or endorsement of this EN (dop/e):	30 April 2001
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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.

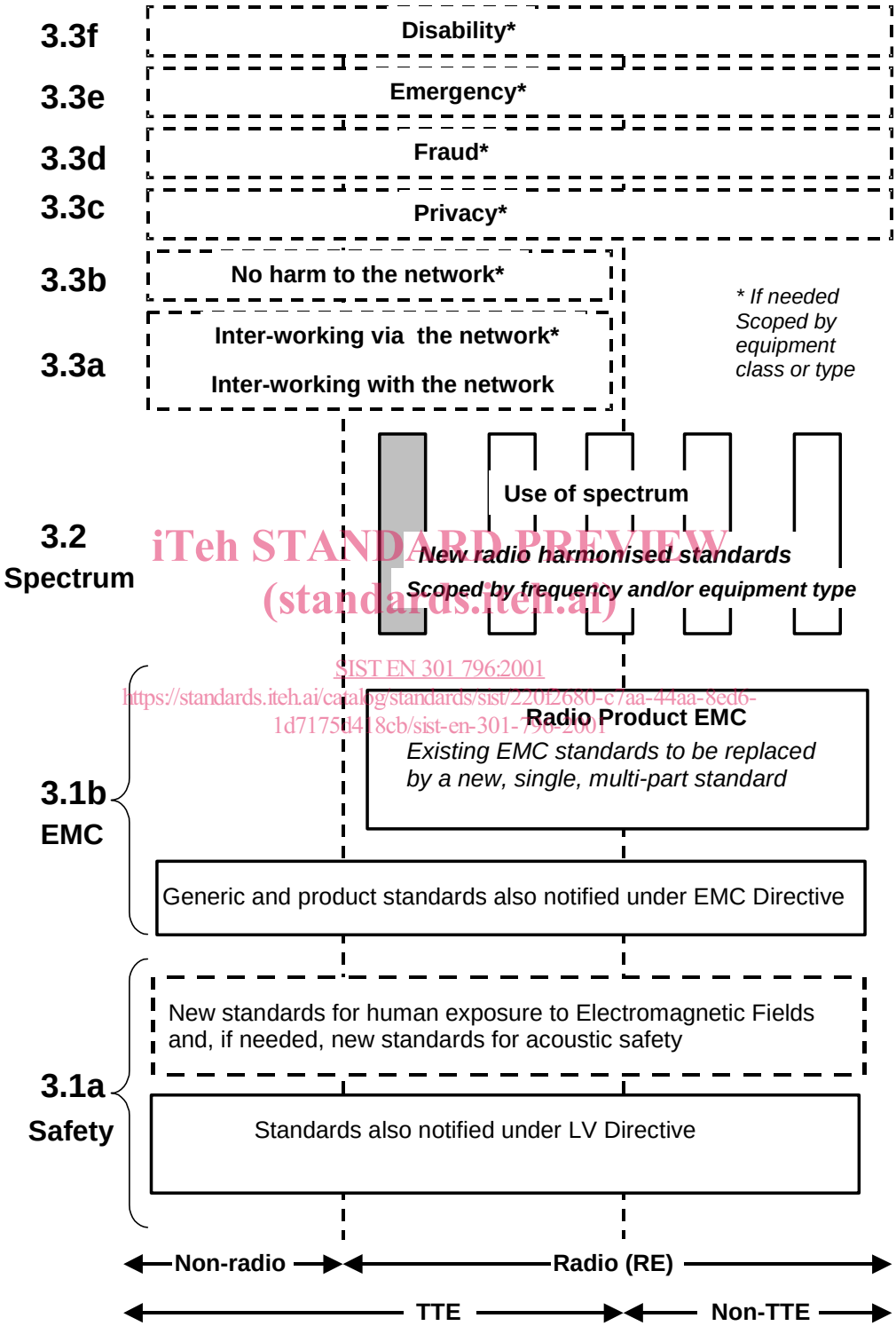

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Figure 1: Modular structure for the various standards used under the R&TTE Directive [1]

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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 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 3.1b 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 [2]. 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 [3] 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:

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- 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:

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  - 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.

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1 Scope

The present document applies to CT1 and CT1+ cordless telephone terminal equipment.

These cordless telephone equipment types are capable of operating in all or any part of the frequency bands given in table 1:

Table 1: Cordless Telephone service frequency bands

	Cordless Telephone service frequency bands
Portable Part CT1	914,0125 MHz to 914,9875 MHz
Fixed Part CT1	959,0125 MHz to 959,9875 MHz
Portable Part CT1+	885,0125 MHz to 886,9875 MHz
Fixed Part CT1+	930,0125 MHz to 931,9875 MHz

It should be noted that the above frequency bands are not harmonized throughout the community.

The existence of this Harmonized Standard does not imply the availability of the above frequency spectrum for the particular types of equipment covered by the present document.

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

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 [1] will apply to equipment within the scope of the present document.

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

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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 1999/5/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] Council Directive 89/336/EEC of 3 May 1989 on the approximation of the laws of the Member States relating to electromagnetic compatibility (EMC Directive).

[3] Council Directive 73/23/EEC of 19 February 1973 on the harmonization of the laws of the Member States relating to electrical equipment designed for use within certain voltage limits (LV Directive).

[4] ETSI ETS 300 086 (1991): "Radio Equipment and Systems (RES); Land mobile group; Technical characteristics and test conditions for radio equipment with an internal or external RF connector intended primarily for analogue speech".

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[5] ITU-T Recommendation O.41: "Psophometer for use on telephone-type circuits".

[6] ETSI ETR 028 (1994): "Radio Equipment and Systems (RES); Uncertainties in the measurement of mobile radio equipment characteristics".

[7] 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 in the R&TTE Directive [1], and the following term and definition applies:

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:

CFP	Cordless Fixed Part
CPP	Cordless Portable Part
CT	Cordless Telephone
EMC	Electro-Magnetic Compatibility
LV	Low Voltage
R&TTE	Radio and Telecommunications Terminal Equipment
RE	Radio Equipment

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4 Principles of operation and general requirements

4.1 Procedure to set up the RF connection between fixed and portable part

Both fixed and portable part comprises a transmitter and a receiver which will perform full duplex operation. When the need for a radio frequency channel arises in any of the parts of a cordless telephone, this part will act in general as follows:

a) the initiating part searches for an idle duplex channel. A channel is considered to be idle if the initiating part of the cordless telephone senses that the radio frequency field strength on that specific channel is below a specified limit;

b) on the idle (duplex) channel, found under a), the initiating part starts transmitting signals to the desired part of the same cordless telephone. These signals contain an identification code which offers at least 999999 different combinations;

c) the receiver of each part of a cordless telephone is constantly scanning, searching for a signal which contains its matching identification code. Upon detection of this code, the receiver stops scanning and initiates its transmitter to return its identification code to the initiating part on this duplex channel;

d) as the receiver of the initiating part detects its matching identification code on the return frequency of the selected duplex channel, the duplex channel becomes available.