

SLOVENSKI STANDARD
SIST EN 301 840-2 V1.1.1:2003
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Elektromagnetna združljivost in zadeve v zvezi z radijskim spektrom (ERM) - Digitalni radijski mikrofoni, ki delujejo v harmoniziranem pasu "CEPT" od 1785 MHz do 1800 MHz - 2. del: Harmonizirani EN v skladu s členom 3.2 direktive R&TTE

Electromagnetic compatibility and Radio Spectrum Matters (ERM) - Digital radio microphones operating in the CEPT Harmonized band 1 785 MHz to 1 800 MHz - Part 2: Harmonized EN under article 3.2 of the R&TTE Directive

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33.160.50	Pribor	Accessories

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Candidate Harmonized European Standard (Telecommunications series)

**Electromagnetic compatibility
and Radio spectrum Matters (ERM);
Digital radio microphones operating in the CEPT
Harmonized band 1 785 MHz to 1 800 MHz;
Part 2: Harmonized EN under article 3.2
of the R&TTE Directive**

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Foreword

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

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].

The present document is part 1 of a multi-part deliverable covering the Digital radio microphones operating in the CEPT Harmonized band 1 785 MHz to 1 800 MHz, as identified below:

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

Part 2: "Harmonized EN under article 3.2 of the R&TTE Directive".

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National transposition dates

Date of adoption of this EN:	15 June 2001
Date of latest announcement of this EN (doa):	30 September 2001
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 March 2002
Date of withdrawal of any conflicting National Standard (dow):	31 March 2003

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.

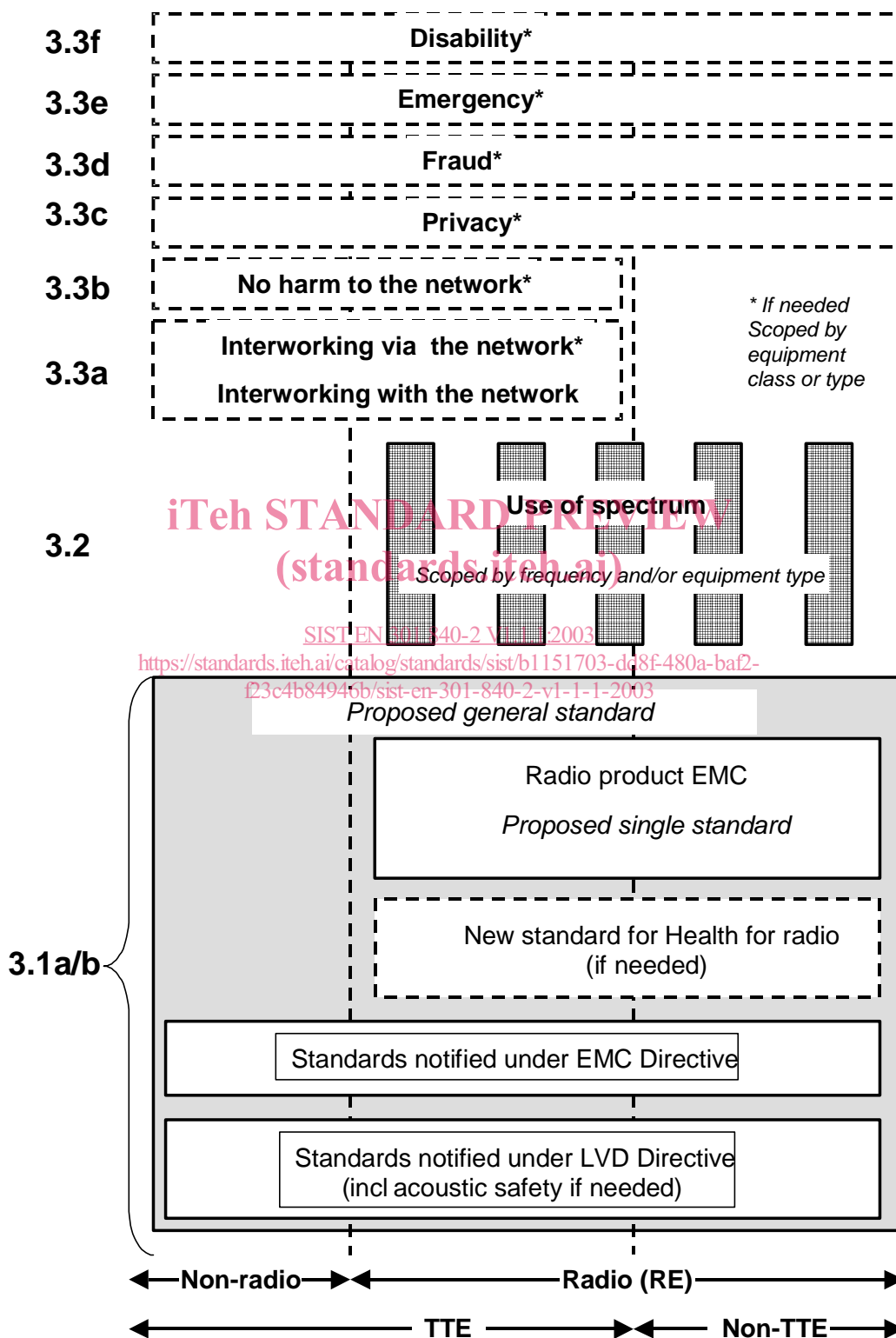


Figure 1: Modular structure for the various standards used under the R&TTE Directive

The left hand edge of the figure shows the different clauses of article 3 of the Directive. The essential requirements under article 3.1a (safety etc.) and 3.1b (EMC) are addressed by a proposed single General Standard that applies to all equipment. The proposed General Standard makes general cross references to those standards already notified under the LVD and EMC Directives that are appropriate for radio equipment and telecommunications terminal equipment and so provides a link to the arrangements under those directives thus avoiding duplication of notifications with potential problems of notifications not being synchronized.

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 3.3 various horizontal boxes are shown. Their dotted lines indicate that 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 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 General Standard will always apply to it, and 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 is adopted by the Commission and if the equipment in question lies within the scope of the corresponding standard. Thus, depending on the nature of the equipment, the essential requirements under the Directive may be covered in just the General Standard or in a set of standards that includes the General Standard.

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 under articles 3.2 and 3.3 to be added when new frequency bands are agreed or when the Commission takes decisions under article 3 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 covers the minimum characteristics considered necessary to effectively use the spectrum allocated so as to avoid harmful interference. It does not necessarily include all the characteristics that may be required by a user, nor does it necessarily represent the optimum performance achievable.

The present document applies to digital equipment operating on radio frequencies between 1 785 MHz and 1 800 MHz. The present document does not preclude any digital FDMA modulation technique, provided that the modulation spectrum lies within the standardized spectral mask.

Analogue Frequency Modulation (FM) is at present used for the majority of radio microphones and other similar equipment and not within the scope of the present document.

The present document does not apply to radio microphones or in ear monitoring equipment employing Time Division Multiple Access (TDMA), frequency hopping and spread spectrum or similar forms of modulation.

Electromagnetic compatibility (EMC) requirements are covered by EN 301 489-9 [4].

Power limits recommended in the present document have been chosen to allow maximum simultaneous reuse of frequency allocations. National regulations on power output may apply up to the limits quoted below.

NOTE: For higher power equipment reference should be made to EN 300 454 [3] Wide band audio links.

Table 1

Equipment	Effective radiated power (erp) or conducted
Radio Microphones	50 mW
In ear monitoring	50 mW

The types of equipment covered by the present document are as follows:
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- professional hand held radio microphones;
- professional body worn radio microphones;
- in ear monitoring systems.

The present document is intended to cover the provisions of article 3.2 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".

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] 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/>.