



SLOVENSKI STANDARD

SIST EN 302 372-2 V1.1.1:2006

01-julij-2006

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Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Equipment for Detection and Movement; Tanks Level Probing Radar (TLPR) operating in the frequency bands 5,8 GHz, 10 GHz, 25 GHz, 61 GHz and 77 GHz; Part 2: Harmonized EN under article 3.2 of the R&TTE Directive

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33.100.01	Elektromagnetna združljivost na splošno	Electromagnetic compatibility in general

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Candidate Harmonized European Standard (Telecommunications series)

**Electromagnetic compatibility
and Radio spectrum Matters (ERM);
Short Range Devices (SRD);
Equipment for Detection and Movement;
Tanks Level Probing Radar (TLPR) operating in the
frequency bands 5,8 GHz, 10 GHz, 25 GHz, 61 GHz and 77 GHz;
Part 2: Harmonized EN 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 (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 [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").

The present document is part 2 of a multi-part deliverable covering Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Equipment for Detection and Movement; Tanks Level Probing Radar (TLPR) operating in the frequency bands 5,8 GHz, 10 GHz, 25 GHz, 61 GHz and 77 GHz; as identified below:

Part 1: "Technical characteristics and test methods";

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

National transposition dates

Date of adoption of this EN:	24 March 2006
Date of latest announcement of this EN (doa):	30 June 2006
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 December 2006
Date of withdrawal of any conflicting National Standard (dow):	31 December 2007

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.

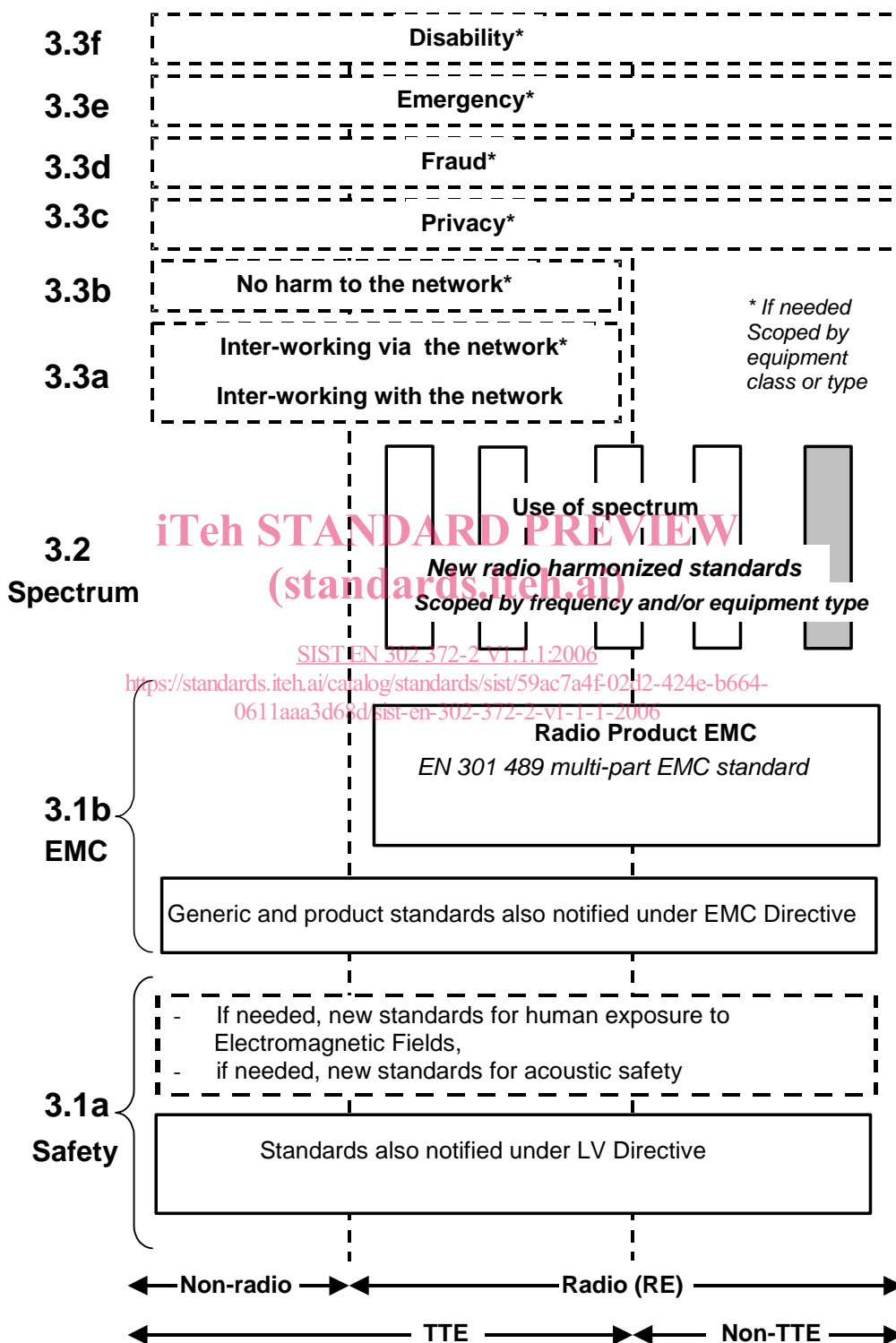


Figure 1: Modular structure for the various standards used under the R&TTE Directive [1]

The left hand edge of the figure shows the different clauses 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 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 EN 301 489, the multi-part product EMC standard for radio used under the EMC Directive.

For article 3.1a the diagram shows the existing safety standards currently used under the LV Directive 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 articles 3.2 when new frequency bands are agreed; or
 - under article 3.3 should the Commission take the necessary decision;
 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.

1 Scope

The present document specifies the requirements for Tank Level Probing Radar (TLPR) applications based on pulse RF, FMCW, or similar wideband techniques.

The radar applications in the present document are limited to TLPRs operating as short range devices, in which the devices are installed in closed metallic tanks or reinforced concrete tanks, or similar enclosure structures made of comparable attenuating material, holding a substance, liquid or powder.

TLPRs are only used for tank level measurement applications where TLPRs are radiating RF signals directly from the tank top downwards to the surface of a substance contained in a closed tank. Any radiation outside of the tank is caused by leakage and is considered as unintentional emission.

The present document applies only to TLPRs fitted with integrated and dedicated antennas as given in table 1.

Table 1: Frequency bands

Equipment	Frequency bands
TLPR	4,5 GHz to 7 GHz; 8,5 GHz to 10,6 GHz; 24,05 GHz to 27 GHz; 57 GHz to 64 GHz; 75 GHz to 85 GHz.

The present document is intended to cover the provisions 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/>.

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.

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

- [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] 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".