



SLOVENSKI STANDARD

SIST EN 300 674-2-2 V1.1.1:2005

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iTeh STANDARD PREVIEW

Electromagnetic compatibility and Radio spectrum Matters (ERM); Road Transport and Traffic Telematics (RTTT); Dedicated Short Range Communication (DSRC) transmission equipment (500 kbit/s / 250 kbit/s) operating in the 5,8 GHz Industrial, Scientific and Medical (ISM) band; Part 2: Harmonized EN under article 3.2 of the R&TTE Directive; Sub-part 2: Requirements for the On-Board Units (OBU)

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ICS:

33.060.99	Druga oprema za radijske komunikacije	Other equipment for radiocommunications
33.100.01	Elektromagnetna združljivost na splošno	Electromagnetic compatibility in general
35.240.60	Uporabniške rešitve IT v transportu in trgovini	IT applications in transport and trade

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Candidate Harmonized European Standard (Telecommunications series)

**Electromagnetic compatibility
and Radio spectrum Matters (ERM);
Road Transport and Traffic Telematics (RTTT);
Dedicated Short Range Communication (DSRC)
transmission equipment (500 kbit/s / 250 kbit/s) operating in
the 5,8 GHz Industrial, Scientific and Medical (ISM) band;
Part 2: Harmonized EN under article 3.2
of the R&TTE Directive;
Sub-part 2: Requirements for the On-Board Units (OBU)**

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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") [1].

The present document is part 2, sub-part 2 of a multi-part deliverable covering Electromagnetic compatibility and Radio spectrum Matters (ERM); Road Transport and Traffic Telematics (RTTT); Dedicated Short Range Communication (DSRC) transmission equipment (500 kbit/s/250 kbit/s) operating in the 5,8 GHz Industrial, Scientific and Medical (ISM) band, as identified below:

Part 1: "General characteristics and test methods for Road Side Units (RSU) and On-Board Units (OBU)";

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

Sub-part 1: "Requirements for the Road Side Units (RSU)";

Sub-part 2: "Requirements for the On-Board Units (OBU)";

Technical specifications relevant to Directive 1999/5/EC [1] are given in annex A.

National transposition dates	
Date of adoption of this EN:	2 April 2004
Date of latest announcement of this EN (doa):	31 July 2004
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 January 2005
Date of withdrawal of any conflicting National Standard (dow):	31 January 2006

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.

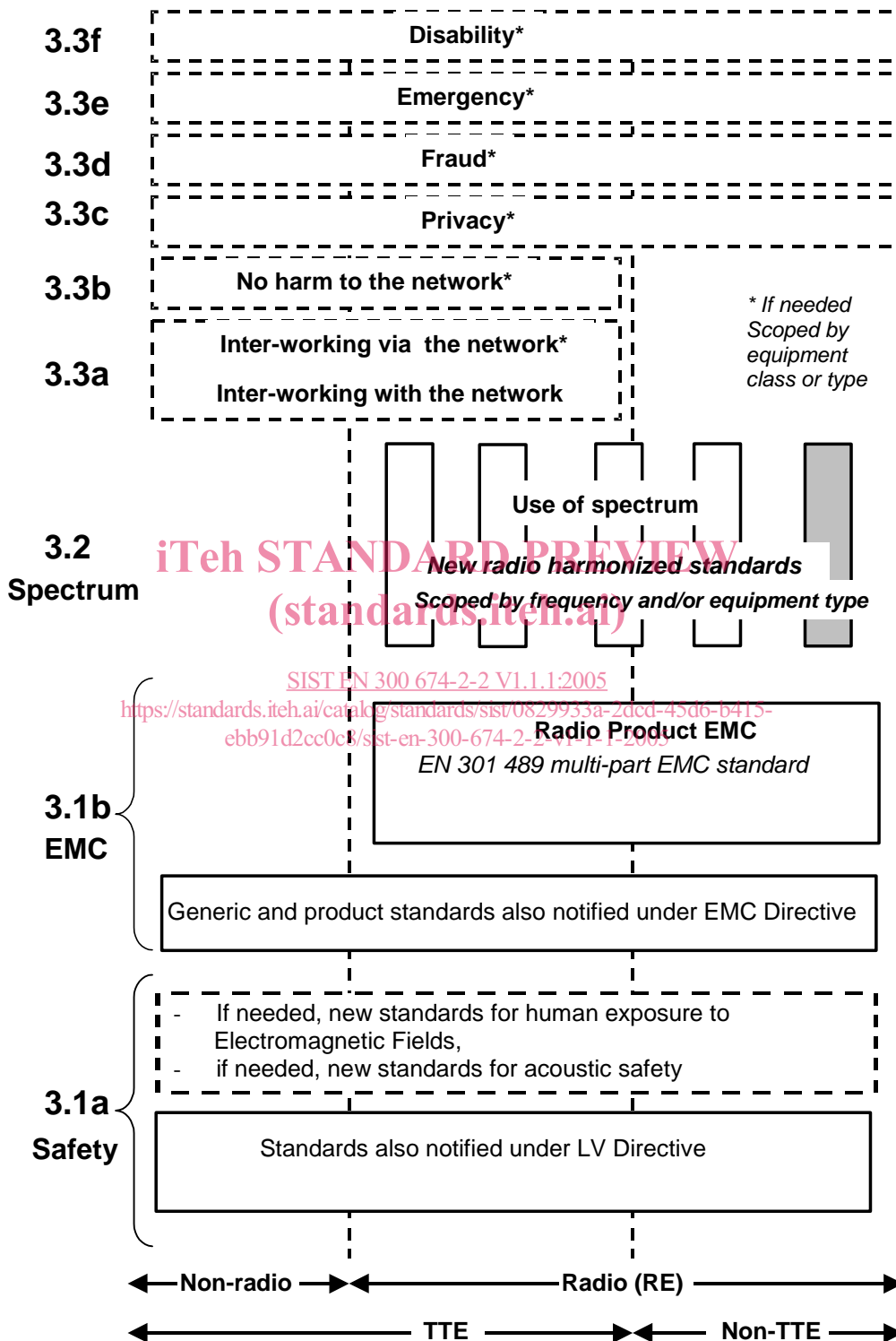


Figure 1: Modular structure for the various standards used under the R&TTE Directive [1]

The left hand edge of the figure 1 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 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 EN 301 489, the multi-part product EMC standard for radio used under the EMC Directive [2].

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. 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 decision
- it clarifies, simplifies and promotes the usage of Harmonized Standards as the relevant means of conformity assessment.

1 Scope

The present document applies to Road Transport and Traffic Telematics (RTTT) systems

- with a Radio Frequency (RF) output connection and specified antenna or with an integral antenna;
- for data transmission only;
- operating on radio frequencies in the 5,725 GHz to 5,875 GHz Industrial, Scientific and Medical (ISM) frequency band.

The applicability of the present document covers only the On Board Units (OBUs).

The present document does not necessarily include all the characteristics which may be required by a user, nor does it necessarily represent the optimum performance achievable.

The present document complies with ECC/DEC/(02)01 [5] and CEPT/ERC/REC 70-03 [6]. It is a specific standard covering various RTTT applications.

The present document applies to the following radio equipment types operating in all or in part of the following service frequency bands given in table 1:

Table 1: Frequency bands and centre frequencies f_{TX} allocated for DSRC

	Pan European Service Frequencies	National Service Frequencies
Channel 1	5,795 GHz to 5,800 GHz, $f_{TX} = 5,7975$ GHz	
Channel 2	5,800 GHz to 5,805 GHz, $f_{TX} = 5,8025$ GHz	
Channel 3		5,805 GHz to 5,810 GHz, $f_{TX} = 5,8075$ GHz
Channel 4		5,810 GHz to 5,815 GHz, $f_{TX} = 5,8125$ GHz

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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.

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 and/or edition number or version number) 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] 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).