



# SLOVENSKI STANDARD

## SIST EN 300 220-2 V2.1.2:2007

01-december-2007

9`Y\_lfca U[ bYfbUnXfi y`1j cgh]b`nUXYj Y`j `nj Yn]`n`fUX]`g\_`ja `gdY\_lfca `f0FAŁ!  
BUdfUj Y`fUh\_Y[ UXcgY[ UfGF8Ł!`FUX]`g\_UcdfYa UĚ\_]`gY`i dcfUV`Uj `ZY\_j Yb bYa  
cVa c `1`cX`&`A<n`Xc`%\$\$\$`A<n`n`a c `bcgfb]a ]`bjj c1`Xc`bUj`Y `)\$\$`a K `!`&`XY.  
<Ufa cb]n]fUb]9Bž\_]`nUYa UV]ghj YbY`nU H`j Y `YbU' "&X]fY\_hj YF/ HH9

Electromagnetic compatibility and Radio spectrum Matters (ERM) - Short Range Devices (SRD) - Radio equipment to be used in the 25 MHz to 1000 MHz frequency range with power levels ranging up to 500 mW - Part 2: Harmonized EN covering essential requirements 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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# ETSI EN 300 220-2 V2.1.2 (2007-06)

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*Candidate Harmonized European Standard (Telecommunications series)*

**Electromagnetic compatibility  
and Radio spectrum Matters (ERM);  
Short Range Devices (SRD);  
Radio equipment to be used in the 25 MHz to 1 000 MHz  
frequency range with power levels ranging up to 500 mW;  
Part 2: Harmonized EN covering essential requirements  
under article 3.2 of the R&TTE Directive**

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## Keywords

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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 is part 2 of a multi-part deliverable, covering the Short Range Devices (SRD); Radio equipment to be used in the 25 MHz to 1 000 MHz frequency range with power levels ranging up to 500 mW, as identified below:

Part 1: "Technical characteristics and test methods";

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

NOTE: Version 2 of this multi-part deliverable consists of two parts. In contrast with earlier versions which consisted of three parts.

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) [3] 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").

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

National transposition dates	
Date of latest announcement of this EN (doa):	30 September 2007
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 March 2008
Date of withdrawal of any conflicting National Standard (dow):	31 March 2009

## 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.

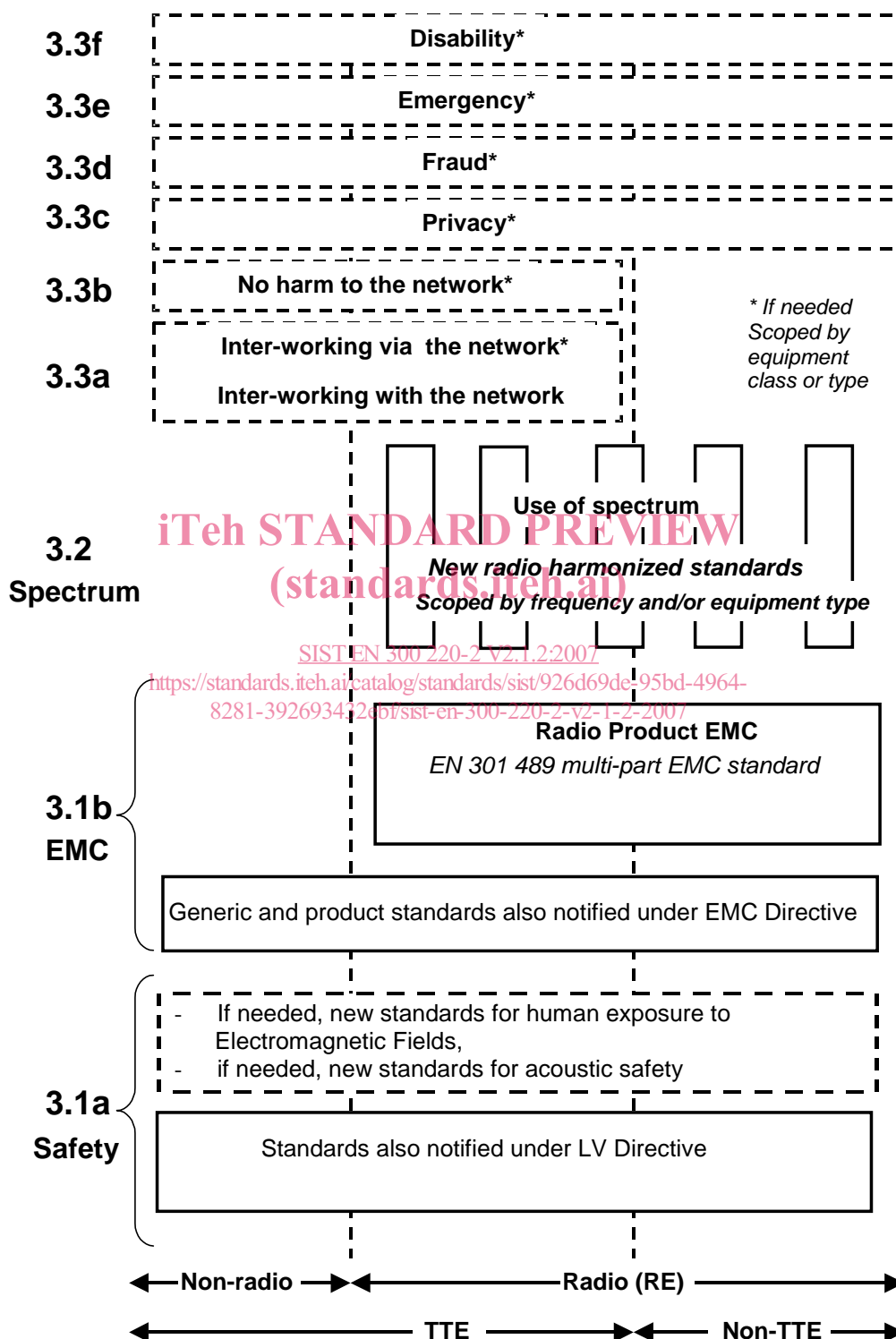


Figure 1: Modular structure for the various standards used under the R&TTE Directive [1]



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 (see bibliography).

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 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 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 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 short range device radio transmitters and receivers as described in the scope of EN 300 220-1 [2].

The present document is intended to cover the provisions of Article 3.2 of Directive 1999/5/EC [1] (R&TTE Directive), 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".

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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 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>.

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- [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 300 220-1 (V2.1.1): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment to be used in the 25 MHz to 1 000 MHz frequency range with power levels ranging up to 500 mW; Part 1: Technical characteristics and test methods".
- [3] 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.

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# 3 Definitions, symbols and abbreviations

## 3.1 Definitions

For the purposes of the present document, the terms and definitions given in the R&TTE Directive [1] and EN 300 220-1 [2] apply.

## 3.2 Symbols

For the purposes of the present document, the symbols given in EN 300 220-1 [2] apply.

## 3.3 Abbreviations

For the purposes of the present document, the abbreviations given in EN 300 220-1 [2] apply.

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## 4 Technical requirements specifications

### 4.1 Environmental profile

The technical requirements of the present document apply under the environmental profile for operation of the equipment, which shall be declared by the supplier. The equipment shall comply with all the technical requirements of the present document at all times when operating within the boundary limits of the declared operational environmental profile.

### 4.2 Conformance requirements

#### 4.2.1 Transmitter requirements

##### 4.2.1.1 Frequency error and frequency drift

One of the following shall be met:

- the frequency error or frequency drift, as defined in EN 300 220-1 [2], clause 8.1.1, shall not exceed the limits in EN 300 220-1 [2], clause 8.1.4, table 6a for narrow band or table 6b for wide band; or
- for narrow band equipment not capable of producing an unmodulated carrier, the adjacent and alternate channel power, as defined in EN 300 220-1 [2], clause 8.6.1, shall not exceed the limits in EN 300 220-1 [2], clause 8.6.3 under extreme conditions.

This requirement applies to all transmitters.

##### 4.2.1.2 Carrier power (conducted)

The carrier power (conducted) as defined in EN 300 220-1 [2], clause 8.2.1, shall not exceed the limits in EN 300 220-1 [2], clause 8.2.3.

This requirement applies to transmitters which may be used without an integral or dedicated antenna.

##### 4.2.1.3 Effective radiated power

The effective radiated power, as defined in EN 300 220-1 [2], clause 8.3.1, shall not exceed the limits in EN 300 220-1 [2], clause 8.3.3.

This requirement applies to transmitters with an integral or dedicated antenna.

##### 4.2.1.4 Transient power

The transient power, as defined in EN 300 220-1 [2], clause 8.5.1, shall not exceed the limits in EN 300 220-1 [2], clause 8.5.4.

This requirement applies to all transmitters.

##### 4.2.1.5 Adjacent channel power

The adjacent channel power, as defined in EN 300 220-1 [2], clause 8.6.1, shall not exceed the limits in EN 300 220-1 [2], clause 8.6.3.

This requirement applies to transmitters with a channel spacing of 200 kHz or less.