

9`Y_fca U[bYfbUnXfi y`^j cghfØ A7Ł]b`nUXYj Yj`nj Yn]`n`fUX]`g_ ja `gdY_fca `fØFAŁ!
 ?cdYbg_Ya cV]bYgfcf]hj Y!`HY b] bY_UfU_hf]gh_Y]b`dfYg_i ýYj Ub]`dc[c^`nU
 fUX]`g_c`cdfYa c`nUUbUc[bY`cn]fca UX][]hUby`ca i b]_UW`Y`fdYbcg`[c] cfU
 cn]fca UdcXUh_cj Łž_]XYi `Yj`cn_cdUgcj b]`_UbU]` ``]b]a UUbhYbg_]`_cbY`fcf!`&
 XY.`<Ufa cb]n]fUb]9Bž_]nU`Ya UV]ghj YbY`nU hYj Y` `YbU' "&X]fY_hj YF/ HH9

Electromagnetic compatibility and Radio spectrum Matters (ERM); Land Mobile Service;
 Radio equipment for analogue and/or digital communication (speech and/or data) and
 operating on narrow band channels and having an antenna connector; Part 2:
 Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive
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Ta slovenski standard je istoveten z: EN 301 166-2 Version 1.1.1

ICS:

33.060.20	Sprejemna in oddajna oprema	Receiving and transmitting equipment
33.100.01	Elektromagnetna združljivost na splošno	Electromagnetic compatibility in general

SIST EN 301 166-2 V1.1.1:2003 **en**

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ETSI EN 301 166-2 V1.1.1 (2001-12)

Candidate Harmonized European Standard (Telecommunications series)

**Electromagnetic compatibility
and Radio spectrum Matters (ERM);
Land Mobile Service;
Radio equipment for analogue and/or digital
communication (speech and/or data) and operating on
narrow band channels and having an antenna connector;
Part 2: Harmonized EN covering essential requirements
under article 3.2 of the R&TTE Directive**

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Reference

REN/ERM-RP02-045-2

Keywordsanalogue, antenna, connector, data, digital,
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Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

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 [13] (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 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" [8]).

The present document is part 2 of a multi-part deliverable covering Land Mobile Service; Radio equipment for analogue and/or digital communication (speech and/or data) and operating on narrow band channels and having an antenna connector, as identified below:

Part 1: "Technical characteristics and methods of measurements"; 1-1-2003

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

National transposition dates

Date of adoption of this EN:	23 November 2001
Date of latest announcement of this EN (doa):	28 February 2002
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 August 2002
Date of withdrawal of any conflicting National Standard (dow):	31 August 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. Each standard is a module in the structure. The modular structure is shown in figure 1.

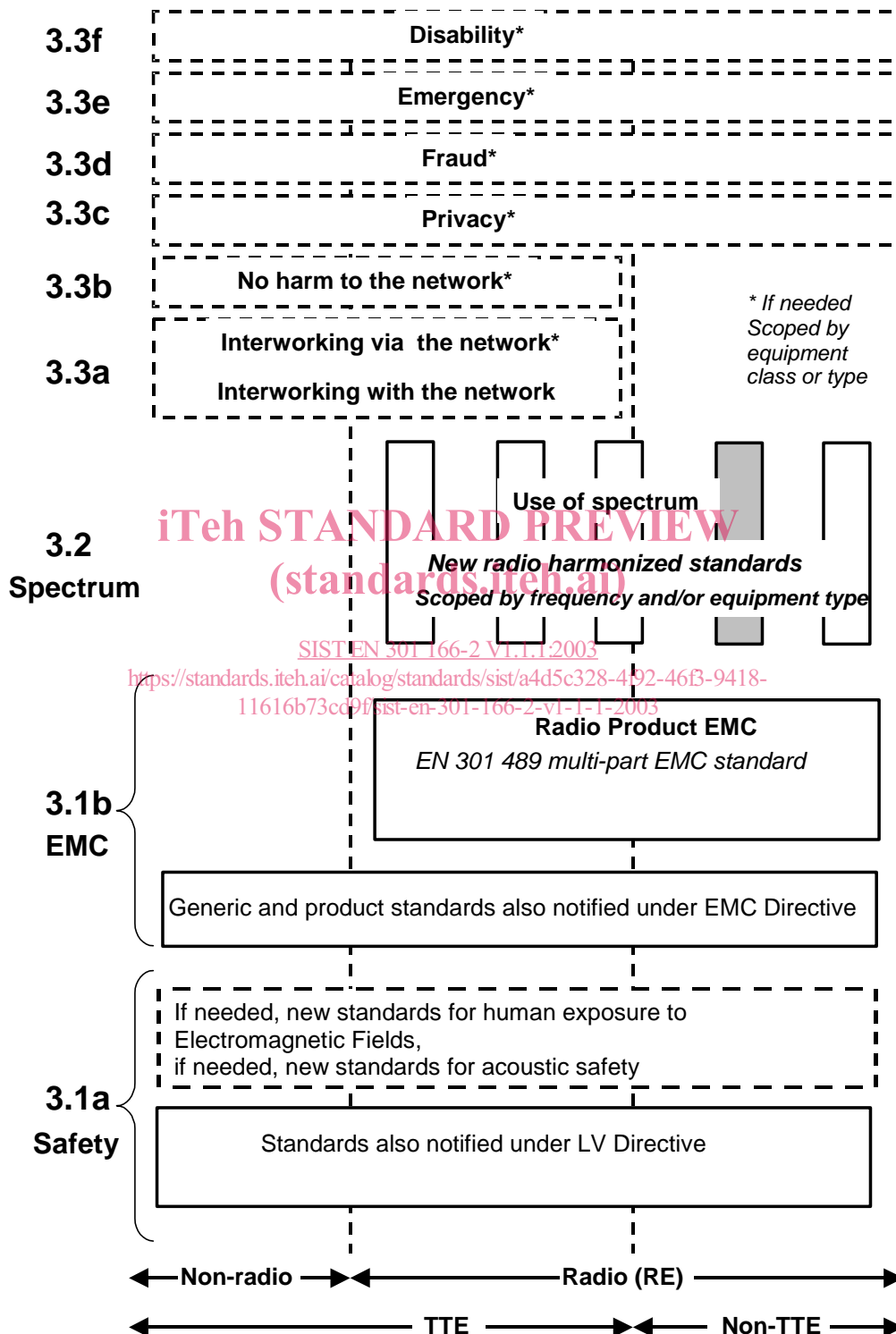


Figure 1: Modular structure for the various standards used under the R&TTE Directive

Explanation of figure 1

The left hand edge of figure 1 shows the different clauses of article 3 of the R&TTE Directive [8].

For article 3.3 various horizontal boxes are shown. Dotted lines indicate that at the time of publication of 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.

For article 3.1b the diagram shows EN 301 489, the multi-part product EMC standard for radio used under the EMC Directive [14].

For article 3.1a figure 1 shows the existing safety standards currently used under the LV Directive [15] 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 [8] 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 [8] may be covered in a set of standards.

The modularity principle has been taken because it is expected that it would:

- minimize 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);
- provide scope for standards to be added under article 3.3 should the Commission take the necessary decisions without requiring alteration of standards that are already published;
- clarify and simplify the usage of Harmonized Standards as the relevant means of conformity assessment.

1 Scope

The present document covers the co-existence requirements for radio transmitters and receivers used in stations in the Private Mobile Radio (PMR) service. It applies to use in the land mobile service, operating on radio frequencies between 30 MHz and 3 GHz, with narrow channel separations (CSP) (less than 10 kHz) and intended for speech and/or data. It is the intention of the present document to cover any Channel Bandwidths (CBW) permitted by CEPT for such systems e.g. 6,25 kHz.

In the present document different requirements are given for the different radio frequency bands, environmental conditions and types of equipment where appropriate.

In the present document, data transmission systems are defined as systems which transmit and/or receive data and/or digitized voice. The equipment comprises a transmitter and associated encoder and modulator and/or a receiver and associated demodulator and decoder.

The present document covers equipment which may use constant envelope or non-constant envelope modulation.

The types of equipment covered by the present document are as follows:

- base station: equipment fitted with antenna socket;
- mobile station: equipment fitted with antenna socket.

Handportable stations:

- a) either fitted with an antenna socket; or
- b) without an external antenna socket (integral antenna equipment) but fitted with a permanent internal or a temporary internal 50 Ω RF connector which allows access to the transmitter output and the receiver input.

Handportable station equipment without an external or internal Radio Frequency (RF) connector and without the possibility of having a temporary internal 50 Ω RF connector is not covered by the present document.

The present document is intended to cover the provisions of article 3.2 of Directive 1999/5/EC [8] (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".

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 may 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.

- [1] ETSI TR 100 028 (V1.3.1) (all parts): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment and characteristics".
- [2] Void.
- [3] Void.
- [4] Void.

- [5] Void.
- [6] Void.
- [7] Void.
- [8] 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.
- [9] ETSI EN 301 166-1: "Electromagnetic compatibility and Radio spectrum Matters (ERM); Land Mobile Service; Radio equipment for analogue and/or digital communication (speech and/or data) and operating on narrow band channels and having an antenna connector; Part 1: Technical characteristics and methods of measurement".
- [10] Void.
- [11] Void.
- [12] Void.
- [13] 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.
- [14] Directive 89/336/EEC of 3 May 1989 on the approximation of the laws of the Member States relating to electromagnetic compatibility.
- [15] Directive 73/23/EEC of 19 February 1973 on the harmonization of the laws of Member States relating to electrical equipment designed for use within certain voltage limits.

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3 Definitions, symbols and abbreviations

SIST EN 301 166-2 V1.1.1:2003

3.1 Definitions

<https://standards.iteh.ai/catalog/standards/sist/a4d5c328-4f92-46f3-9418-11616b73cd9f/sist-en-301-166-2-v1-1-1-2003>

For the purposes of the present document, the terms and definitions given in the R&TTE Directive and EN 301 166-1 [9] apply.

3.2 Symbols

For the purposes of the present document, the symbols defined in EN 301 166-1 [9] apply.

3.3 Abbreviations

For the purposes of the present document, the abbreviations defined in EN 301 166-1 [9] apply.

4 Technical specifications

For equipment without an external antenna socket (integral antenna equipment) but fitted with a permanent internal or a temporary internal 50 Ω RF connector which allows access to the transmitter output and the receiver input, the following additional measurements are made using the equipment antenna connected to the station (and not using any connector):

- transmitter effective radiated power;
- transmitter radiated spurious emissions;
- receiver maximum usable sensitivity (field strength);
- receiver spurious radiations.