



# SLOVENSKI STANDARD

## SIST EN 301 908-1 V2.2.1:2004

01-julij-2004

9`Y\_fca U[ bYfbUnXfi y`1j cghf0A7L]b`nUXYj Yj`nj Yn]`n`fUX]`g\_`ja`gdY\_fca`f0FAŁ!  
6 UnbYdcghU`Y`f6 GŁ]b`i dcfUvb]y`UcdfYa Ufl 9L`nUW]` bUca fYy`UfYhY  
[ YbYfUW]`Y`=A H!&\$\$\$`!`%`"XY.`< Ufa cb]n]fUb]`9B`nU`=A H!&\$\$\$`ži j cX]`b`gd`cýbY  
nU hYj Y` `YbU' "&X]fY\_hj YF/ HH9

Electromagnetic compatibility and Radio spectrum Matters (ERM); Base Stations (BS), Repeaters and User Equipment (UE) for IMT-2000 Third-Generation cellular networks; Part 1: Harmonized EN for IMT-2000, introduction and common requirements, covering essential requirements of article 3.2 of the R&TTE Directive

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# ETSI EN 301 908-1 V2.2.1 (2003-10)

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*Candidate Harmonized European Standard (Telecommunications series)*

**Electromagnetic compatibility  
and Radio spectrum Matters (ERM);  
Base Stations (BS), Repeaters and User Equipment (UE) for  
IMT-2000 Third-Generation cellular networks;  
Part 1: Harmonized EN for IMT-2000,  
introduction and common requirements,  
covering essential requirements  
of 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 1 of a multi-part deliverable covering the Base Stations (BS), Repeaters and User Equipment (UE) for IMT-2000 Third-Generation cellular networks, as identified below:

- SIST EN 301 908-1 V2.2.1:2004  
<https://standards.etsi.org/standards-search/>  
<http://standards.etsi.org/standards-search/>  
<http://standards.etsi.org/standards-search/>
- Part 1: **"Harmonized EN for IMT-2000, introduction and common requirements, covering essential requirements of article 3.2 of the R&TTE Directive"**;
  - Part 2: "Harmonized EN for IMT-2000, CDMA Direct Spread (UTRA FDD) (UE) covering essential requirements of article 3.2 of the R&TTE Directive";
  - Part 3: "Harmonized EN for IMT-2000, CDMA Direct Spread (UTRA FDD) (BS) covering essential requirements of article 3.2 of the R&TTE Directive";
  - Part 4: "Harmonized EN for IMT-2000, CDMA Multi-Carrier (cdma2000) (UE) covering essential requirements of article 3.2 of the R&TTE Directive";
  - Part 5: "Harmonized EN for IMT-2000, CDMA Multi-Carrier (cdma2000) (BS and Repeaters) covering essential requirements of article 3.2 of the R&TTE Directive";
  - Part 6: "Harmonized EN for IMT-2000, CDMA TDD (UTRA TDD) (UE) covering essential requirements of article 3.2 of the R&TTE Directive";
  - Part 7: "Harmonized EN for IMT-2000, CDMA TDD (UTRA TDD) (BS) covering essential requirements of article 3.2 of the R&TTE Directive";
  - Part 8: "Harmonized EN for IMT-2000, TDMA Single-Carrier (UWC 136) (UE) covering essential requirements of article 3.2 of the R&TTE Directive";
  - Part 9: "Harmonized EN for IMT-2000, TDMA Single-Carrier (UWC 136) (BS) covering essential requirements of article 3.2 of the R&TTE Directive";
  - Part 10: "Harmonized EN for IMT-2000 FDMA/TDMA (DECT) covering essential requirements of article 3.2 of the R&TTE Directive";
  - Part 11: "Harmonized EN for IMT-2000 CDMA Direct Spread (UTRA FDD) (Repeaters) covering essential requirements of article 3.2 of the R&TTE Directive".

Technical specifications relevant to Directive 1999/5/EC [1] which are common are given in annex A of the present document.

<b>National transposition dates</b>	
Date of adoption of this EN:	3 October 2003
Date of latest announcement of this EN (doa):	31 January 2004
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 July 2004
Date of withdrawal of any conflicting National Standard (dow):	31 January 2006

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<https://standards.iteh.ai/catalog/standards/sist/fb48c4e8-1f04-4607-97a4-24caf96a3ba2/sist-en-301-908-1-v2-2-1-2004>

## 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.

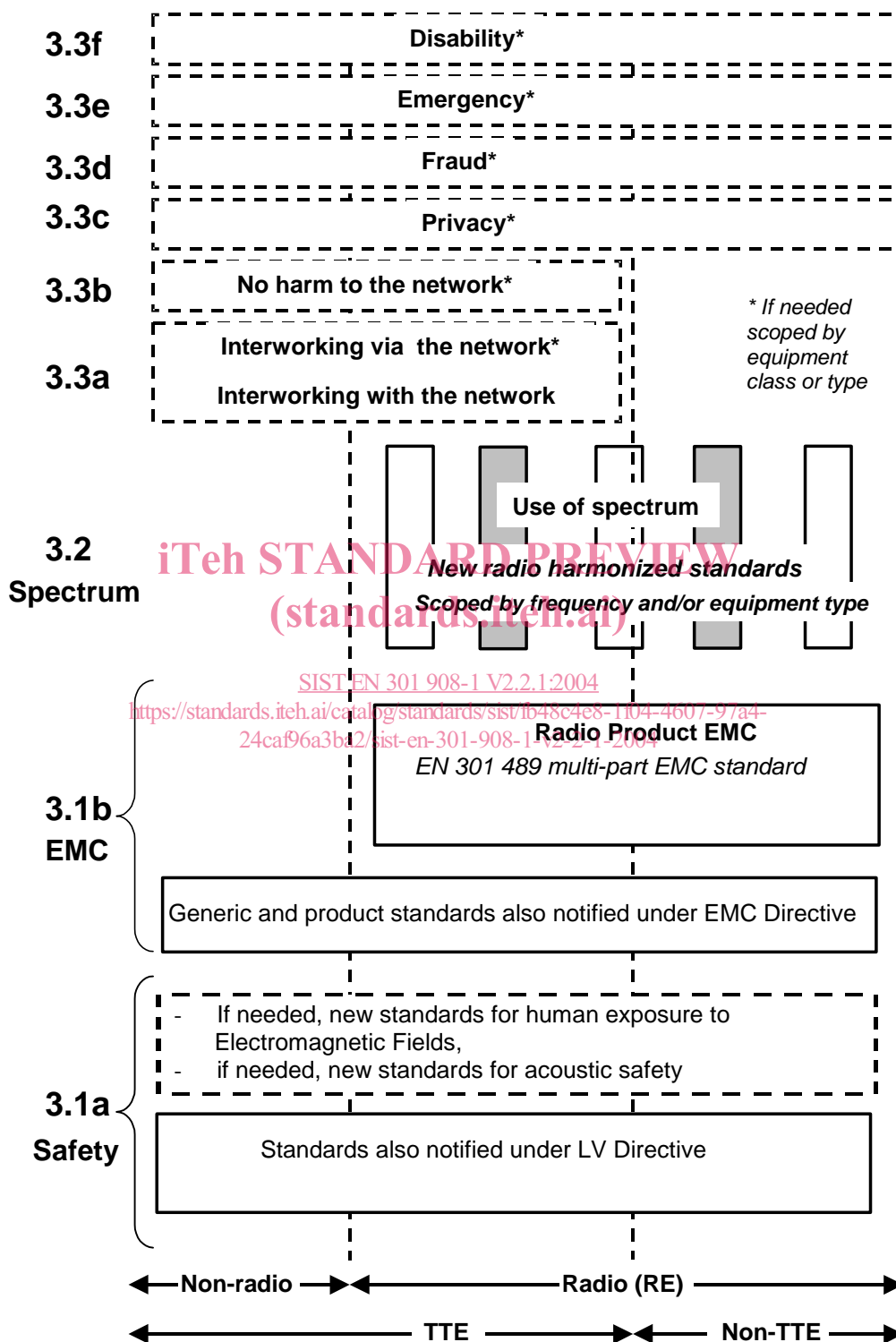


Figure 1: Modular structure for the various standards used under the R&TTE Directive



The left hand edge of the figure 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, figure 1 shows EN 301 489 [7], the multi-part product EMC standard for radio used under the EMC Directive [2].

For article 3.1a, figure 1 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 figure 1 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.

The product specifications upon which all parts of EN 301 908 are based differ in presentation and this is reflected in the present document.

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# 1 Scope

The present document applies to the following radio equipment types:

- User equipment, repeaters and base stations for IMT-2000, except for IMT-2000 FDMA/TDMA (DECT), falling within the scope of one of the following parts of EN 301 908, and ancillary equipment which is intended to be used together with it.

NOTE 1: EN 301 908-10 [9] contains requirements for radiated spurious emissions and control and monitoring functions applicable to IMT-2000 FDMA/TDMA (DECT) equipment.

The present document includes technical requirements which are common to equipment falling within the scope of several of the following parts.

NOTE 2: The following parts of EN 301 908, which are listed in the foreword of the present document, specify technical requirements in respect of a particular class of IMT-2000 equipment.

NOTE 3: ITU-R Recommendation M.8/BL/18 [4] defines the characteristics of the members of the IMT-2000 family by means of references to technical specifications developed by Standards Development organizations. The present document applies to equipment designed to meet any version of the terrestrial specifications referenced in ITU-R Recommendation M.8/BL/18 [4].

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.

NOTE 4: A list of such ENs is included on the web site <http://www.newapproach.org>.

<https://standards.iteh.ai/catalog/standards/sist/fb48c4e8-1f04-4607-97a4-24ca196a3ba2/sist-en-301-908-1-v2-2-1-2004>

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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>.

- [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).
- [3] Council 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 (LV Directive).
- [4] ITU-R Recommendation M.8/BL/18 (2003): "Draft revision of Recommendation ITU-R M.1457-1 - Detailed specifications of the radio interfaces of International Mobile Telecommunications-2000 (IMT-2000)".

- [5] ETSI TR 100 028 (all parts) (V1.4.1): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics".
- [6] ITU-R Recommendation SM.329-10 (2003): "Unwanted emissions in the spurious domain".
- [7] ETSI EN 301 489 (all parts): "Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services".
- [8] ITU-R Recommendation SM.1539-1 (2002): "Variation of the boundary between the out-of-band and spurious domains required for the application of Recommendations ITU-R SM.1541 and ITU-R SM.329".
- [9] ETSI EN 301 908-10: "Electromagnetic compatibility and Radio spectrum Matters (ERM); Base Stations (BS) and User Equipment (UE) for IMT-2000 Third-Generation cellular networks; Part 10: Harmonized EN for IMT-2000 FDMA/TDMA (DECT) covering essential requirements of article 3.2 of the R&TTE Directive".

## 3 Definitions and abbreviations

### 3.1 Definitions

For the purposes of the present document, the terms and definitions given in the R&TTE Directive [1] and the following apply:

**ancillary equipment:** equipment (apparatus), used in connection with a User Equipment (UE), Repeater or Base Station (BS) is considered as an ancillary equipment (apparatus) if:

- the equipment is intended for use in conjunction with a user equipment UE, repeater or BS to provide additional operational and/or control features to the radio equipment, (e.g. to extend control to another position or location); and
- the equipment cannot be used on a stand alone basis to provide user functions independently of a UE, BS or combination of BS and repeater; and
- the UE, BS or combination of BS and repeater to which it is connected, is capable of providing some intended operation, such as transmitting and/or receiving without the ancillary equipment (i.e. it is not a sub-unit of the main equipment essential to the main equipment basic functions).

**applicable part:** part of the multi-part deliverable, of which EN 301 908-1 is the first part, for which the scope of that document includes the equipment to be tested

**average power:** average transmitter output power obtained over any specified time interval, including periods with no transmission, when the transmit time slots are at the maximum power setting

**enclosure port:** physical boundary of the apparatus through which electromagnetic fields may radiate or impinge

NOTE: In the case of integral antenna equipment, this port is inseparable from the antenna port.

**environmental profile:** range of environmental conditions under which equipment within the scope of the present document is required to comply with the provisions of EN 301 908-1

**IMT-2000:** IMT-2000s are third generation mobile systems which are scheduled to start service around the year 2000 subject to market considerations

NOTE: ITU-R Recommendation M.8/BL/18 [4] identifies the detailed specifications for the IMT-2000 radio interfaces.

**idle mode:** state of User Equipment (UE) when switched on but with no Radio Resource Control (RRC) connection