



# SLOVENSKI STANDARD

## SIST EN 301 929-2 V1.2.1:2007

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9`Y\_fca U[ bYfbUnXfi y`j cghfA7L]b`nUXYj Yj`nj Yn]`n`fUX]`g\_`ja`gdY\_fca`fAFAE!  
J]gc\_cZY\_j Yb b]`fU<: L`cXXU`b\_]`b]`gdfY`Ya b\_]`\_chcVU`bY`dcghU`Y`nU[ `cVU`b]  
dca cfg\_]`bi`bcg]b]`b]`U`bcg]b]`g]ghYa`f]`A8GG]b`Xfi [ c`i`dcfU`c`j`a`cV]`b]  
dca cfg\_]`g]c]f]h]`j]`!`&`"XY.`<`U`fa`cb]n]f`Ub]`9B]`j`g`\_`UXi`g`\_`Ybca`" `&`X]f`Y`\_`h]`Y`F/`H`H9

Electromagnetic compatibility and Radio spectrum Matters (ERM) - VHF transmitters and receivers as Coast Stations for GMDSS and other applications in the maritime mobile service - Part 2: Harmonized EN under article 3.2 of the R&TTE Directive

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*Harmonized European Standard (Telecommunications series)*

**Electromagnetic compatibility  
and Radio spectrum Matters (ERM);  
VHF transmitters and receivers as Coast Stations for GMDSS  
and other applications in the maritime mobile service;  
Part 2: Harmonized EN under article 3.2  
of the R&TTE Directive**

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## Reference

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## Foreword

This 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 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 of a multi-part deliverable covering VHF transmitters and receivers as Coast Stations for GMDSS and other applications in the maritime mobile service, as identified below:

- Part 1: "Technical characteristics and methods of measurement";
- Part 2: "Harmonized EN under article 3.2 of the R&TTE Directive".**

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

National transposition dates	
Date of adoption of this EN:	9 February 2007
Date of latest announcement of this EN (doa):	31 May 2007
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	30 November 2007
Date of withdrawal of any conflicting National Standard (dow):	30 November 2008



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# 1 Scope

The present document applies to the following radio equipment:

- Transmitters, receivers and transceivers fitted with external antenna connectors, used as coast stations, operating in the VHF band of the maritime mobile service as defined in the Radio Regulations, Appendix S18 [3] and utilizing class of emission G3E, and where relevant G2B for DSC signalling.
- This includes:
  - equipment operating under local or remote control;
  - equipment operating on 12,5 kHz or 25 kHz channel spacing;
  - equipment capable of analogue speech, Digital Selective Calling (DSC), or both;
  - equipment operating in Simplex, Semi-Duplex (Half Duplex) and Duplex modes;
  - equipment which may consist of more than one unit;
  - equipment which may be single-channel or multi-channel;
  - equipment operating on shared radio sites;
  - equipment operating in isolation from other radio equipment.

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.

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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>.

NOTE: While any hyperlinks included in this clause were valid at the time of publication ETSI cannot guarantee their long term validity.

- [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 TR 100 028-1 (V1.4.1): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics".
- [3] ITU Radio Regulations (2004).

- [4] ETSI TR 102 273-1 (V1.2.1): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Improvement on Radiated Methods of Measurement (using test site) and evaluation of the corresponding measurement uncertainties".
- [5] ETSI EN 301 929-1 (V1.2.1): "Electromagnetic compatibility and Radio spectrum Matters (ERM); VHF transmitters and receivers as Coast Stations for GMDSS and other applications in the maritime mobile service; Part 1: Technical characteristics and methods of measurement".

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## 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:

**environmental profile:** range of environmental conditions under which equipment within the scope of the present document is required to comply

**G3E:** phase-modulation (Frequency modulation with a pre-emphasis of 6 dB/octave) for analogue speech

**G2B:** phase-modulation with digital information, with a sub-carrier for Digital Selective Calling (DSC) operation

**modulation index:** ratio between the frequency deviation and the modulation frequency

### 3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

DSC	Digital Selective Calling
EMC	Electro-Magnetic Compatibility
LV	Low Voltage
R&TTE	Radio and Telecommunications Terminal Equipment
SINAD	Signal + Noise + Distortion/Noise + Distortion
VHF	Very High Frequency

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## 4 Technical requirements specifications

### 4.1 Environmental profile

Tests defined in the present document shall be carried out at representative points within the boundary limits of the declared operational environmental profile which, as a minimum, shall be that specified in the test conditions contained in the present document.

As technical performance varies subject to environmental conditions, tests shall be carried out under a sufficient variety of environmental conditions as specified in the present document, to give confidence of compliance for the affected technical requirements. (which shall also be within the boundary limits of the declared operational environmental profile).

## 4.2 Conformance requirements

### 4.2.1 Transmitter frequency error

#### 4.2.1.1 Definition

The frequency error is defined in EN 301 929-1 [5], clause 8.1.1.

#### 4.2.1.2 Limits

The transmitter frequency error limit shall be as stated in EN 301 929-1 [5], clause 8.1.3.

#### 4.2.1.3 Conformance

Conformance tests as defined in clause 5.3.1 shall be carried out.

### 4.2.2 Transmitter carrier power

#### 4.2.2.1 Definition

The transmitter carrier power is defined in EN 301 929-1 [5], clause 8.2.1.

#### 4.2.2.2 Limits

The transmitter carrier power limit shall be as stated in EN 301 929-1 [5], clause 8.2.3.

#### 4.2.2.3 Conformance

Conformance tests as defined in clause 5.3.2 shall be carried out.

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### 4.2.3 Transmitter frequency deviation

#### 4.2.3.1 Definition

The transmitter frequency deviation is defined in EN 301 929-1 [5], clause 8.3.1.

#### 4.2.3.2 Limits

The transmitter frequency deviation limit shall be as stated in EN 301 929-1 [5], clauses 8.3.2.2 and 8.3.3.2.

#### 4.2.3.3 Conformance

Conformance tests as defined in clause 5.3.3. shall be carried out.

### 4.2.4 Transmitter adjacent channel power

#### 4.2.4.1 Definition

The transmitter adjacent channel power is defined in EN 301 929-1 [5], clause 8.6.1.

#### 4.2.4.2 Limits

The transmitter adjacent channel power limit shall be as stated in EN 301 929-1 [5], clause 8.6.3.