



# SLOVENSKI STANDARD

## SIST EN 300 162-2 V1.2.1:2007

01-marec-2007

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j`dUgcj ]\ `J<: `!`&`XY.`<Ufa cb]n]fUb]9Bž\_]`nU`Ya UV]ghj YbY`nU H]j Y `YbU' "&  
X]fY\_hj YF/ HH9

Electromagnetic compatibility and Radio spectrum Matters (ERM); Radiotelephone transmitters and receivers for the maritime mobile service operating in VHF bands; Part 2: Harmonized EN covering essential requirements of article 3.2 of the R&TTE Directive

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# ETSI EN 300 162-2 V1.2.1 (2006-12)

*Harmonized European Standard (Telecommunications series)*

**Electromagnetic compatibility  
and Radio spectrum Matters (ERM);  
Radiotelephone transmitters and receivers for  
the maritime mobile service operating in VHF bands;  
Part 2: Harmonized EN covering essential requirements  
of article 3.2 of the R&TTE Directive**

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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) [4] 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.

The present document is part 2 of a multi-part deliverable covering the radiotelephone transmitters and receivers for the maritime mobile service operating in VHF bands, as identified below:

- Part 1: "Technical characteristics and methods of measurement";
- Part 2: "Harmonized EN covering essential requirements of article 3.2 of the R&TTE Directive";**
- Part 3: "Harmonized EN covering essential requirements of article 3.3 (e) of the R&TTE Directive".

### National transposition dates

Date of adoption of this EN:	17 November 2006
Date of latest announcement of this EN (doa):	28 February 2007
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 August 2007
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# 1 Scope

The present document applies to shipborne Very High Frequency (VHF) transmitters and receivers capable of voice and Digital Selective Calling (DSC), radio equipment.

The present document lays down minimum requirements for VHF radio transmitters and receivers operating in certain frequency bands allocated to the maritime mobile service using both 25 kHz and 12,5 kHz channels, and incorporates the requirements of the relevant recommendations of the International Maritime Organization (IMO).

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] may 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 EN 300 162-1 (V1.4.1): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Radiotelephone transmitters and receivers for the maritime mobile service operating in VHF bands; Part 1: Technical characteristics and methods of measurement".
- [3] ETSI TR 100 028-1 (V1.4.1): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 1".
- [4] 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.
- [5] Commission Decision of 4 September 2003 on essential requirements relating to marine radio communication equipment which is intended to be used on non-SOLAS vessels and to participate in the Global Maritime Distress and Safety System (GMDSS) (2004/71/EC).



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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 with the provisions of the present document

### 3.2 Abbreviations

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

DSC	Digital Selective Calling
EMC	Electro-Magnetic Compatibility
HS	Harmonized Standard
LV	Low Voltage
R&TTE	Radio and Telecommunications Terminal Equipment
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. These environmental conditions represent those required by Article 2 of EC decision 2004/71/EC [5] (which shall also be within the boundary limits of the declared operational environmental profile).

### 4.2 Conformance requirements

#### 4.2.1 Frequency error

##### 4.2.1.1 Definition

The frequency error is defined in EN 300 162-1 [2], clause 8.1.1.

##### 4.2.1.2 Limit

The frequency error limit shall be as stated in EN 300 162-1 [2], 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 Carrier power

### 4.2.2.1 Definition

The carrier power is defined in EN 300 162-1 [2], clause 8.2.1.

### 4.2.2.2 Limit

The carrier power limit shall be as stated in EN 300 162-1 [2], clause 8.2.3.

### 4.2.2.3 Conformance

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

## 4.2.3 Frequency deviation

### 4.2.3.1 Definition

The frequency deviation is defined in EN 300 162-1 [2], clause 8.3.1.

### 4.2.3.2 Limit

The frequency deviation limit shall be as stated in EN 300 162-1 [2], 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 Adjacent channel power

### 4.2.4.1 Definition

The adjacent channel power is defined in EN 300 162-1 [2], clause 8.7.1.

### 4.2.4.2 Limit

The adjacent channel power limit shall be as stated in EN 300 162-1 [2], clause 8.7.3.

### 4.2.4.3 Conformance

Conformance tests as defined in clause 5.3.4 shall be carried out.

## 4.2.5 Conducted spurious emissions conveyed to the antenna

### 4.2.5.1 Definition

The conducted spurious emissions conveyed to the antenna is defined in EN 300 162-1 [2], clause 8.8.1.

### 4.2.5.2 Limit

The conducted spurious emissions conveyed to the antenna limit shall be as stated in EN 300 162-1 [2], clause 8.8.3.

### 4.2.5.3 Conformance

Conformance tests as defined in clause 5.3.5 shall be carried out.

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## 4.2.6 Cabinet radiation and conducted spurious emissions other than those conveyed to the antenna

### 4.2.6.1 Definition

The cabinet radiation and conducted spurious emissions other than those conveyed to the antenna is defined in EN 300 162-1 [2], clause 8.9.1.

### 4.2.6.2 Limit

The cabinet radiation and conducted spurious emissions other than those conveyed to the antenna limit shall be as stated in EN 300 162-1 [2], clause 8.9.3.

### 4.2.6.3 Conformance

Conformance tests as defined in clause 5.3.6 shall be carried out.

## 4.2.7 Transient frequency behaviour of the transmitter

### 4.2.7.1 Definition

The transient frequency behaviour of the transmitter is defined in EN 300 162-1 [2], clause 8.14.1.

### 4.2.7.2 Limit

The transient frequency behaviour of the transmitter limit shall be as stated in EN 300 162-1 [2], clause 8.14.3.

### 4.2.7.3 Conformance

Conformance tests as defined in clause 5.3.7 shall be carried out.

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## 4.2.8 Maximum usable sensitivity

### 4.2.8.1 Definition

The maximum usable sensitivity is defined in EN 300 162-1 [2], clause 9.3.1.

### 4.2.8.2 Limit

The maximum usable sensitivity limit shall be as stated in EN 300 162-1 [2], clause 9.3.3.

### 4.2.8.3 Conformance

Conformance tests as defined in clause 5.4.2 may be carried out.

## 4.2.9 Co-channel rejection

### 4.2.9.1 Definition

The co-channel rejection is defined in EN 300 162-1 [2], clause 9.4.1.

### 4.2.9.2 Limit

The co-channel rejection limit shall be as stated in EN 300 162-1 [2], clause 9.4.3.