

<b>STN</b>	<b>Námorné pohyblivé vysielače a prímače na použitie v pásmach MF a HF</b> <b>Harmonizovaná norma vzťahujúca sa na základné požiadavky podľa článkov 3.2 a 3.3(g) Smernice 2014/53/EU</b>	<b>STN</b> <b>EN 303 402 V2.1.1</b>  87 3402
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# ETSI EN 303 402 V2.1.1 (2017-05)



**Maritime mobile transmitters and receivers  
for use in the MF and HF bands;  
Harmonised Standard covering the essential requirements  
of articles 3.2 and 3.3(g) of Directive 2014/53/EU**

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## Foreword

This Harmonised European Standard (EN) has been produced by ETSI Technical Committee Electromagnetic compatibility and Radio spectrum Matters (ERM).

The present document has been prepared under the Commission's standardisation request C(2015) 5376 final [i.12] to provide one voluntary means of conforming to the essential requirements of Directive 2014/53/EU on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC [i.1].

Once the present document is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of the present document given in tables A.1 and A.2 confers, within the limits of the scope of the present document, a presumption of conformity with the corresponding essential requirements of that Directive, and associated EFTA regulations.

The present document replaces ETSI EN 300 373-2 [i.10] and ETSI EN 300 373-3 [i.11].

<b>National transposition dates</b>	
Date of adoption of this EN:	25 April 2017
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## Modal verbs terminology

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# 1 Scope

The present document specifies technical characteristics and methods of measurements for radio transmitters and receivers, for use on vessels, operating in either the Medium Frequency (MF) only or in the Medium and High Frequency (MF/HF) bands allocated in the International Telecommunications Union (ITU) Radio Regulations [i.9], to the Maritime Mobile Service (MMS).

The present document refers to equipment for one or more of the following:

- Single SideBand (SSB) modulation for telephony transmission and reception (J3E);
- Frequency Shift Keying (FSK) or SSB modulation of a keyed sub-carrier to transmit and receive Digital Selective Calling (DSC) signals.

The present document also refers to radio equipment with either an integrated or external DSC controller.

The requirements in the present document are applicable to receivers for operating on all frequencies in the bands 1 606,5 kHz to 4 000 kHz or 1 606,5 kHz to 27,5 MHz as allocated in the ITU Radio Regulations [i.9], to the MMS.

Other spot frequency receivers should meet all the requirements of the present document and other relevant standards as applicable for the frequencies and modes provided.

If the equipment, or parts of it, are designed in such a manner that they can be used for other categories of maritime radiocommunication (e.g. Morse telegraphy or NBDP - ETSI ETS 300 067 [i.4]), those parts of the equipment should fulfil the relevant requirements of the appropriate standards for the service(s) in question e.g. ETSI ETS 300 067 [i.4].

The present document covers the essential requirements of article 3.2 and article 3.3(g) of Directive 2014/53/EU [i.1] under the conditions identified in annex A.

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## 2 References

### 2.1 Normative references

References are specific, identified by date of publication and/or edition number or version number. Only the cited version applies.

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

The following referenced documents are necessary for the application of the present document.

- [1] ETSI TS 103 052 (V1.1.1) (03-2011): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Radiated measurement methods and general arrangements for test sites up to 100 GHz".
- [2] ITU Recommendation E.161 (02-2001): "Arrangement of digits, letters and symbols on telephones and other devices that can be used for gaining access to a telephone network".
- [3] ETSI EN 300 338-4 (V1.2.1) (02-2017): "Technical characteristics and methods of measurement for equipment for generation, transmission and reception of Digital Selective Calling (DSC) in the maritime MF, MF/HF and/or VHF mobile service; Part 4: Class E DSC".

### 2.2 Informative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

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The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

- [i.1] Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC.
- [i.2] ETSI TR 100 028-1 (V1.4.1) (12-2001): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 1".
- [i.3] ETSI TR 100 028-2 (V1.4.1) (12-2001): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 2".
- [i.4] ETSI ETS 300 067 (11-1990): "Radio Equipment and Systems (RES); Radiotelex equipment operating in the maritime MF/HF service; Technical Characteristics and methods of measurement".
- [i.5] Recommendation ITU-R SM.332-4 (07-1978): "Selectivity of receivers".
- [i.6] Recommendation ITU-R SM.326-7 (11-1998): "Determination and measurement of the power of amplitude-modulated radio transmitters".
- [i.7] ISO 3791 (1976): "Office machines and data processing equipment - Keyboard layouts for numeric applications".
- [i.8] CENELEC EN 60945 (2002): "Maritime navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results".
- [i.9] ITU Radio Regulations (2016).
- [i.10] ETSI EN 300 373-2 (V1.2.1) (2009-12): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Maritime mobile transmitters and receivers for use in the MF and HF bands; Part 2: Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive".
- [i.11] ETSI EN 300 373-3 (V1.2.1) (2009-12): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Maritime mobile transmitters and receivers for use in the MF and HF bands; Part 3: Harmonized EN covering essential requirements under article 3.3(e) of the R&TTE Directive; Equipment with integrated or associated equipment for Class E Digital Selective Calling (DSC)".
- [i.12] Commission Implementing Decision C(2015) 5376 final of 4.8.2015 on a standardisation request to the European Committee for Electrotechnical Standardisation and to the European Telecommunications Standards Institute as regards radio equipment in support of Directive 2014/53/EU of the European Parliament and of the Council.
- [i.13] CENELEC EN 60945 4th edition (2002): "Maritime navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results".

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