

STN	Norma na elektromagnetickú kompatibilitu (EMC) námorných rádiových zariadení a služieb. Harmonizovaná norma vzťahujúca sa na základné požiadavky podľa článku 3.1b smernice 2014/53/EÚ. Časť 1: Spoločné technické požiadavky.	STN EN 301 843-1 V2.1.1 87 1843
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ElectroMagnetic Compatibility (EMC) standard for marine radio equipment and services; Harmonised Standard covering the essential requirements of article 3.1b of the Directive 2014/53/EU; Part 1: Common technical requirements

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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HARMONISED EUROPEAN STANDARD

**ElectroMagnetic Compatibility (EMC) standard
for marine radio equipment and services;
Harmonised Standard covering the essential requirements
of article 3.1b of the Directive 2014/53/EU;
Part 1: Common technical requirements**

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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.10] 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.4].

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 table A.1 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 is part 1 of a multi-part deliverable covering the ElectroMagnetic Compatibility (EMC) standard for marine radio equipment and services, as identified below:

- Part 1: "Common technical requirements";**
- Part 2: "Specific conditions for VHF radiotelephone transmitters and receivers";
- Part 4: "Specific conditions for Narrow-Band Direct-Printing (NBDP) NAVTEX receivers";
- Part 5: "Specific conditions for MF/HF radiotelephone transmitters and receivers";
- Part 6: "Specific conditions for Earth Stations on board Vessels operating in frequency bands above 3 GHz".

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Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the [ETSI Drafting Rules](#) (Verbal forms for the expression of provisions).

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1 Scope

The present document contains the common requirements for marine radio communications equipment and associated ancillary equipment, in respect of ElectroMagnetic Compatibility (EMC).

The provisions of the present document apply to marine radio equipment **not covered** in the scope of the Council Directive on marine equipment (the "Marine Equipment Directive" 96/98/EC [i.5]).

Product dependent arrangements necessary to perform the EMC tests on dedicated types of marine radio communications equipment, and the assessment of test results, are detailed in the appropriate product related parts of the present document.

The present document, together with the product related part, specifies the applicable EMC tests, the methods of measurement, the limits and the performance criteria for marine radio equipment and associated ancillary equipment.

In case of differences (for instance concerning special conditions, definitions, abbreviations) between the present document and the relevant product related part of the present document, the product related part takes precedence.

For the further content of the present document, the expression "radio equipment" is taken to mean marine radio communications equipment, in each individual case.

Technical specifications related to the antenna port of radio equipment and emissions from the enclosure port of radio equipment and combinations of radio and associated ancillary equipment are not included in the present document. Such technical specifications are normally found in the relevant product standards for the effective use of the radio spectrum.

The environment classification used in the present document is maritime, as defined in CENELEC EN 60945 [1].

Marine radio communications equipment meeting the EMC requirements set out in CENELEC EN 60945 [1] is deemed to meet also the EMC requirements for the residential, commercial and light industrial environment as defined in CENELEC EN 61000-6-3 [i.1] and CENELEC EN 61000-6-1 [i.2].

The EMC requirements have been selected to ensure an adequate level of compatibility for apparatus intended to be used in the maritime environment. The levels, however, do not cover extreme cases which may occur in any location but with low probability of occurrence.

Compliance of radio equipment to the requirements of the present document does not signify compliance to any requirements related to spectrum management or to the use of the equipment (licensing requirements).

Compliance to the requirements of the present document does not signify compliance to any safety requirements. However, it is the responsibility of the assessor of the equipment to record in the test report any observations regarding the test sample becoming dangerous or unsafe as a result of the application of the tests called for in the present document.

The present document contains requirements to demonstrate an adequate level of electromagnetic compatibility as set out in Directive 2014/30/EU.

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 Radio Equipment Directive [i.4] may apply to equipment within the scope of the present document.

2 References

2.1 Normative 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.

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.

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

- [1] CENELEC EN 60945:2002 + Corrigendum 1 (2008): "Maritime navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results".
- [2] CISPR 16-1-1 (2015): "Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-1: Radio disturbance and immunity measuring apparatus - Measuring apparatus".
- [3] CENELEC EN 61000-4-2 (2003): "Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test".
- [4] CENELEC EN 61000-4-3 (2006 + Amendment 1:2008 +Amendment 2:2010): "Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test".
- [5] CENELEC EN 61000-4-4 (2012): "Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test".
- [6] CENELEC EN 61000-4-5 (2014): "Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test".
- [7] CENELEC EN 61000-4-6 (2014): "Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields".
- [8] ETSI EN 301 843-2 (V2.1.1) (03-2016): "ElectroMagnetic Compatibility (EMC) standard for marine radio equipment and services; Harmonised Standard covering the essential requirements of article 3.1b of the Directive 2014/53/EU; Part 2: Specific conditions for VHF radiotelephone transmitters and receivers".
- [9] ETSI EN 301 843-4 (V2.1.1) (03-2016): "ElectroMagnetic Compatibility (EMC) standard for marine radio equipment and services; Harmonised Standard covering the essential requirements of article 3.1b of the Directive 2014/53/EU; Part 4: Specific conditions for Narrow-Band Direct-Printing (NBDP) NAVTEX receivers".
- [10] ETSI EN 301 843-5 (V2.1.1) (03-2016): "ElectroMagnetic Compatibility (EMC) standard for marine radio equipment and services; Harmonised Standard covering the essential requirements of article 3.1b of the Directive 2014/53/EU; Part 5: Specific conditions for MF/HF radiotelephone transmitters and receivers".
- [11] ETSI EN 301 843-6 (V2.1.1) (03-2016): "ElectroMagnetic Compatibility (EMC) standard for marine radio equipment and services; Harmonised Standard covering the essential requirements of article 3.1b of the Directive 2014/53/EU; Part 6: Specific conditions for Earth Stations on board Vessels operating in frequency bands above 3 GHz".

2.2 Informative references

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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] CENELEC EN 61000-6-3 (2007) + A1 (2011): "Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments".

- [i.2] CENELEC EN 61000-6-1 (2007): "Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments".
 - [i.3] Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility.
 - [i.4] 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.5] Council Directive 96/98/EC of 20 December 1996 on marine equipment.
 - [i.6] CENELEC EN 60050-161 (1990): "International Electrotechnical Vocabulary. Chapter 161: Electromagnetic compatibility".
 - [i.7] CEPT/ERC Recommendation 74-01 (2011): "Unwanted emissions in the spurious domain".
 - [i.8] Void.
 - [i.9] Void.
 - [i.10] 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.
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