ETSI EN 302 961-2 V1.2.1 (2013-07)

Electromagnetic compatibility and Radio spectrum Matters (ERM); Maritime Personal Homing Beacon intended for use on the frequency 121,5 MHz for search and rescue purposes only; Part 2: Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive

Reference
DEN/ERM-TG26-099-2

Keywords
maritime, radio, SAR, testing

ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

Important notice

Individual copies of the present document can be downloaded from:
http://www.etsi.org

The present document may be made available in more than one electronic version or in print. In any case of existing or perceived difference in contents between such versions, the reference version is the Portable Document Format (PDF). In case of dispute, the reference shall be the printing on ETSI printers of the PDF version kept on a specific network drive within ETSI Secretariat.

Users of the present document should be aware that the document may be subject to revision or change of status. Information on the current status of this and other ETSI documents is available at
http://portal.etsi.org/tb/status/status.asp

If you find errors in the present document, please send your comment to one of the following services:
http://portal.etsi.org/chaircor/ETSI_support.asp

Copyright Notification

Contents

Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: *"Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards"*, which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (http://ipr.etsi.org).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

Foreword

This Harmonized European Standard (EN) 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 mandate M/284 issued from the European Commission under Directive 98/34/EC [i.2] as amended by Directive 98/48/EC [i.3].

The title and reference to the present document are intended to be included in the publication in the Official Journal of the European Union of titles and references of Harmonized Standard under the Directive 1999/5/EC [i.1].

See article 5.1 of Directive 1999/5/EC [i.1] for information on presumption of conformity and Harmonized Standards or parts thereof the references of which have been published in the Official Journal of the European Union.

The requirements relevant to Directive 1999/5/EC [i.1] are summarized in annex A.

The present document is part 2 of a multi-part deliverable covering the Electromagnetic compatibility and Radio spectrum Matters (ERM); Maritime Personal Homing Beacon intended for use on the frequency 121,5 MHz (radio beacons) as identified below:

Part 1: "Technical characteristics and methods of measurement";

Part 2: "Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive";

Part 3: "Harmonized EN covering the essential requirements of article 3.3(e) of the R&TTE Directive".

National transposition dates	
Date of adoption of this EN:	2 July 2013
Date of latest announcement of this EN (doa):	31 October 2013
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	30 April 2014
Date of withdrawal of any conflicting National Standard (dow):	30 April 2015

1 Scope

The present document states the minimum technical characteristics and methods of measurement required for Maritime Personal Homing Beacon intended for use on the frequency 121,5 MHz for search and rescue purposes only.

The present document also specifies technical characteristics, methods of measurement and required test results.

2 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 reference 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.

2.1 Normative references

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

[1] ETSI EN 302 961-1 (V1.2.1) (07-2013): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Maritime Personal Homing Beacon intended for use on the frequency 121,5 MHz for search and rescue purposes only; Part 1: Technical characteristics and methods of measurement".

[2] ETSI TR 100 028 (all parts) (V1.4.1) (12-2001): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics".

2.2 Informative references

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 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).

[i.2] 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.

[i.3] Directive 98/48/EC of the European Parliament and of the Council of 20 July 1998 amending Directive 98/34/EC laying down a procedure for the provision of information in the field of technical standards and regulations.

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in the R&TTE Directive [i.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

supplier: entity referred to in the R&TTE Directive [i.1] responsible for the placing on the market of an equipment within the scope of the Directive

3.2 Abbreviations

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

CW	Carrier Wave
ERP	Effective Radiated Power
ERPEP	Effective Radiated Peak Envelope Power
RF	Radio Frequency

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.

4.2 Conformance requirements

4.2.1 Transmitter frequency error

4.2.1.1 Definition

The transmitter frequency error shall be as defined in EN 302 961-1 [1], clause 8.1.1.

4.2.1.2 Limit

The transmitter frequency error limit shall be as stated in EN 302 961-1 [1], 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 Modulation characteristics

4.2.2.1 Definition

The modulation characteristics shall be as defined in EN 302 961-1 [1], clauses 8.2.1.1, 8.2.2.1 and 8.2.3.1.

4.2.2.2 Limit

The modulation characteristics limits shall be as stated in EN 302 961-1 [1], clause 8.2.5.

4.2.2.3 Conformance

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

4.2.3 Audio sweep characteristics

4.2.3.1 Definition

The audio sweep characteristics shall be as defined in EN 302 961-1 [1], clauses 8.2.6.1 and 8.2.6.2.

4.2.3.2 Limit

The audio sweep characteristics limit shall be as stated in EN 302 961-1 [1], clause 8.2.6.4.

4.2.3.3 Conformance

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

4.2.4 Spectral carrier power ratio

4.2.4.1 Definition

The spectral carrier power ratio shall be as defined in EN 302 961-1 [1], clause 8.3.1.

4.2.4.2 Limit

The spectral carrier power ratio limit shall be as stated in EN 302 961-1 [1], clause 8.3.3.

4.2.4.3 Conformance

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

4.2.5 Maximum Effective Radiated Peak Envelope Power (ERPEP)

4.2.5.1 Definition

The maximum effective radiated peak envelope power shall be as defined in EN 302 961-1 [1], clause 8.4.1.

4.2.5.2 Limit

The maximum effective radiated peak envelope power limit shall be as stated in EN 302 961-1 [1], clause 8.4.4.

4.2.5.3 Conformance

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

4.2.6 Effective Radiated Power during CW modulation (ERP(CW))

4.2.6.1 Definition

The effective radiated power during CW modulation shall be as defined in EN 302 961-1 [1], clause 8.5.1.

4.2.6.2 Limit

The effective radiated power during CW modulation limit shall be as stated in EN 302 961-1 [1], clause 8.5.3.

4.2.6.3 Conformance

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

4.2.7 Transmitter spectrum mask

4.2.7.1 Definition

The transmitter spectrum mask shall be as defined in EN 302 961-1 [1], clause 8.6.1.

4.2.7.2 Limit

The transmitter spectrum mask limit shall be as stated in EN 302 961-1 [1], clause 8.6.3.

4.2.7.3 Conformance

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

4.2.8 Radiation produced by operation of the test facility

4.2.8.1 Definition

The radiation produced by operation of the test facility shall be as defined in EN 302 961-1 [1], clause 8.7.1.

4.2.8.2 Limit

The radiation produced by operation of the test facility limit shall be as stated in EN 302 961-1 [1], clause 8.7.3.

4.2.8.3 Conformance

Conformance tests as defined in clause 5.3.8 shall be carried out.

4.2.9 Spurious emissions

4.2.9.1 Definition

The spurious emissions are defined in EN 302 961-1 [1], clause 8.8.1.

4.2.9.2 Limit

The spurious emissions limit shall be as stated in EN 302 961-1 [1], clause 8.8.3.

4.2.9.3 Conformance

Conformance tests as defined in clause 5.3.9 shall be carried out.