



Harmonized European Standard

**Electromagnetic compatibility and
Radio spectrum Matters (ERM);
Portable Very High Frequency (VHF) radiotelephone
equipment for the maritime mobile service operating
in the VHF bands with integrated handheld class D DSC;
Part 3: Harmonized EN covering the essential requirements
of article 3.3(e) of the R&TTE Directive**

Reference

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Contents

Intellectual Property Rights	7
Foreword.....	7
Introduction	7
1 Scope	8
2 References	8
2.1 Normative references	8
2.2 Informative references	8
3 Definitions and abbreviations	9
3.1 Definitions	9
3.2 Abbreviations	9
4 Technical requirements specifications	9
4.1 Environmental profile.....	9
4.2 General, operational and technical requirements.....	10
4.2.1 General and operational requirements	10
4.2.1.1 Requirements	10
4.2.1.2 Conformance.....	10
4.2.2 Technical requirements	10
4.2.2.1 Requirements	10
4.2.2.2 Conformance.....	10
4.3 Environmental requirements	10
4.3.1 Drop test	10
4.3.1.1 Definition	10
4.3.1.2 Requirement	10
4.3.1.3 Conformance	10
4.3.2 Temperature tests	10
4.3.2.1 Definition	10
4.3.2.2 Dry heat.....	11
4.3.2.2.1 Definition.....	11
4.3.2.2.2 Requirement	11
4.3.2.2.3 Conformance	11
4.3.2.3 Damp heat	11
4.3.2.3.1 Definition.....	11
4.3.2.3.2 Requirement	11
4.3.2.3.3 Conformance	11
4.3.2.4 Low temperature	11
4.3.2.4.1 Definition.....	11
4.3.2.4.2 Requirement	11
4.3.2.4.3 Conformance	11
4.4 Conformance requirements	11
4.4.1 Sensitivity of the modulator, including microphone.....	11
4.4.1.1 Definition	11
4.4.1.2 Limit.....	11
4.4.1.3 Conformance.....	12
4.4.2 Audio frequency response	12
4.4.2.1 Definition	12
4.4.2.2 Limit.....	12
4.4.2.3 Conformance.....	12
4.4.3 Audio frequency harmonic distortion of the emission	12
4.4.3.1 Definition	12
4.4.3.2 Limit.....	12
4.4.3.3 Conformance.....	12
4.4.4 Residual modulation of the transmitter	12
4.4.4.1 Definition	12

4.4.4.2	Limit.....	12
4.4.4.3	Conformance.....	12
4.4.5	Harmonic distortion and rated audio-frequency output power	12
4.4.5.1	Definition	12
4.4.5.2	Limit.....	12
4.4.5.3	Conformance.....	13
4.4.6	Receiver audio frequency response	13
4.4.6.1	Definition	13
4.4.6.2	Limit.....	13
4.4.6.3	Conformance.....	13
4.4.7	Receiver noise and hum level	13
4.4.7.1	Definition	13
4.4.7.2	Limit.....	13
4.4.7.3	Conformance.....	13
4.4.8	Squelch operation	13
4.4.8.1	Definition	13
4.4.8.2	Limit.....	13
4.4.8.3	Conformance.....	13
4.4.9	Squelch hysteresis.....	13
4.4.9.1	Definition	13
4.4.9.2	Limit.....	13
4.4.9.3	Conformance.....	14
4.4.10	Receiver scanning efficiency	14
4.4.10.1	Definition	14
4.4.10.2	Limit.....	14
4.4.10.3	Conformance.....	14
4.5	DSC Signalling.....	14
4.5.1	DSC Call Validation	14
4.5.2	Display.....	14
4.5.3	GNSS receiver	14
4.5.4	Individual DSC calls.....	14
4.5.5	All ships calls.....	14
4.5.6	DSC call functionality	14
4.5.7	DSC message composition	14
4.5.8	Prioritized wait.....	14
4.5.9	Alarms	15
4.5.10	Standby	15
4.5.11	GNSS fix - sending distress	15
4.5.12	Tasks - sending distress	15
4.5.13	Display - sending distress	15
4.5.14	Distress button sub procedure	15
4.5.15	Transmission of the alert attempt.....	15
4.5.16	Updating position.....	15
4.5.17	Handling received DSC messages - sending distress.....	15
4.5.18	Alarms - sending distress	15
4.5.19	Determining subsequent communications - sending distress.....	15
4.5.20	Automated tuning - sending distress	15
4.5.21	Cancelling the distress alert	16
4.5.22	Acknowledgements - sending distress	16
4.5.23	Termination - sending distress	16
4.5.24	Warnings - sending distress	16
4.5.25	Tasks - receiving distress	16
4.5.26	Display - receiving distress.....	16
4.5.27	Handling received DSC messages - receiving distress	16
4.5.28	Alarms - receiving distress	16
4.5.29	Determining subsequent communications - receiving distress	16
4.5.30	Automated tuning - receiving distress	16
4.5.31	Acknowledgements - receiving distress.....	16
4.5.32	Termination - receiving distress.....	16
4.5.33	Warnings - receiving distress.....	16
4.5.34	Tasks - sending non distress	17
4.5.35	Display - sending non distress	17

4.5.36	Handling received DSC messages - sending non distress	17
4.5.37	Alarms - sending non distress	17
4.5.38	Automated tuning - sending non distress	17
4.5.39	Delayed acknowledgements - sending non distress	17
4.5.40	Termination - sending non distress	17
4.5.41	Warnings - sending non distress	17
4.5.42	Tasks - receiving non distress	17
4.5.43	Display - receiving non distress	17
4.5.44	Handling received DSC messages - receiving non distress	17
4.5.45	Alarms - receiving non distress	17
4.5.46	Automated tuning - receiving non distress	17
4.5.47	Acknowledgements - receiving non distress	18
4.5.48	Termination - receiving non distress	18
4.5.49	Warnings - receiving non distress	18
4.5.50	Communication automated procedure	18
4.5.51	Tasks - communication	18
4.5.52	Display - communication	18
4.5.53	Handling received DSC messages - communication	18
4.5.54	Tuning of the receiver and transmitter - communication	18
4.5.55	Termination - communication	18
4.5.56	Tasks of handling incoming calls while engaged	18
4.5.57	Termination of automated procedures	18
4.5.58	Actions after termination of an automated procedure	18
4.5.59	Putting automated procedures on hold	18
4.5.60	Controlling non-terminated automated procedures on hold	19
4.5.61	Sending and receiving distress alert scanning	19
4.5.62	Normal scan	19
4.5.63	Multiple watch scan	19
5	Testing for compliance with technical requirements	19
5.1	Test conditions, power supply and ambient temperatures	19
5.2	Interpretation of the measurement results	19
5.3	Essential radio test suites	20
5.3.1	Environmental tests	20
5.3.1.1	Introduction	20
5.3.1.2	Procedure	20
5.3.1.3	Performance check	20
5.3.1.4	Drop test	20
5.3.1.4.1	Definition	20
5.3.1.4.2	Limit	20
5.3.1.4.3	Conformance	20
5.3.1.5	Temperature tests	21
5.3.1.5.1	Dry heat	21
5.3.1.5.2	Damp heat	21
5.3.1.5.3	Low temperature	21
5.3.2	Conformance tests	21
5.3.2.1	Sensitivity of the modulator, including microphone	21
5.3.2.2	Audio frequency response	21
5.3.2.3	Audio frequency harmonic distortion of the emission	22
5.3.2.4	Residual modulation of the transmitter	22
5.4	Other test suites	22
5.4.1	General	22
5.4.2	Harmonic distortion and rated audio-frequency output power	22
5.4.3	Receiver audio frequency response	22
5.4.4	Receiver noise and hum level	22
5.4.5	Squelch operation	22
5.4.6	Squelch hysteresis	22
5.4.7	Receiver scanning efficiency	22
Annex A (normative):	HS Requirements and conformance Test specifications Table	
	(HS-RTT)	23

Annex B: Void	27
History	28

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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/357 issued from the European Commission under Directive 98/34/EC [i.2] as amended by Directive 98/48/EC [i.5].

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 3 of a multi-part deliverable covering the Electromagnetic compatibility and Radio spectrum Matters (ERM); Portable Very High Frequency (VHF) radiotelephone equipment for the maritime mobile service operating in the VHF bands with integrated handheld class D DSC, 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".**

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Date of adoption of this EN:	24 February 2014
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Introduction

The present document is part of a set of standards developed by ETSI and is designed to fit in a modular structure to cover all radio and telecommunications terminal equipment within the scope of the R&TTE Directive [i.1]. The modular structure is shown in EG 201 399 [i.4].

1 Scope

The present document states the minimum technical characteristics and methods of measurement required for portable Very High Frequency (VHF) radiotelephones with integrated handheld class D DSC operating in certain frequency bands allocated to the maritime mobile service using either 25 kHz channels or 25 kHz and 12,5 kHz channels.

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

The present document is intended to cover the provisions of Directive 1999/5/EC [i.1] (R&TTE Directive) article 3.3(e), which states that radio equipment within the scope of the present document "*...shall be so constructed that:.... (e) it supports certain features ensuring access to emergency services;....*".

In addition to the present document, other European Norms (ENs) that specify technical requirements in respect of essential requirements under other parts of article 3 of the R&TTE Directive [i.1] will apply to equipment within the scope of the present document.

NOTE: A list of such European Norms is included on the web site <http://www.newapproach.org/>.

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 302 885-1 (V1.3.1) (03-2014): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Portable Very High Frequency (VHF) radiotelephone equipment for the maritime mobile service operating in the VHF bands with integrated handheld class D DSC; Part 1: Technical characteristics and methods of measurement".
- [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".
- [3] ETSI EN 300 338-5 (V1.1.1) (02-2011): "Electromagnetic compatibility and Radio spectrum Matters (ERM); 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 5: Handheld VHF Class D DSC".

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] EC decision 2004/71/EC 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).
- [i.4] ETSI EG 201 399: "Electromagnetic compatibility and Radio spectrum Matters (ERM); A guide to the production of Harmonized Standards for application under the R&TTE Directive".
- [i.5] 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:

class D: intended to provide minimum facilities for VHF DSC distress, urgency and safety as well as routine calling and reception, not necessarily in full accordance with IMO GMDSS carriage requirements for VHF installations

NOTE: For handheld VHF a reduced functionality is permitted compared to a fixed VHF class D.

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

G2B: phase-modulation with digital information, with a sub-carrier for DSC operation

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

modulation index: ratio between the frequency deviation and the frequency of the modulation signal

3.2 Abbreviations

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

DSC	Digital Selective Calling
GMDSS	Global Maritime Distress and Safety System
GNSS	Global Navigation Satellite System
IMO	International Maritime Organization
R&TTE	Radio and Telecommunications Terminal Equipment
RF	Radio Frequency
RT	Radio Telephony
SOLAS	Safety Of Life And Sea
VHF	Very High 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. These environmental conditions represent those required by article 2 of EC Decision 2004/71/EC [i.3] (which shall also be within the boundary limits of the declared operational environmental profile).

4.2 General, operational and technical requirements

4.2.1 General and operational requirements

4.2.1.1 Requirements

The general and operational requirements are defined in EN 302 885-1 [1], clause 4.

4.2.1.2 Conformance

The manufacturer shall declare that compliance to these requirements is achieved and shall provide relevant documentation.

4.2.2 Technical requirements

4.2.2.1 Requirements

The technical requirements are defined in EN 302 885-1 [1], clause 5.

4.2.2.2 Conformance

The manufacturer shall declare that compliance to these requirements is achieved and shall provide relevant documentation.

4.3 Environmental requirements

4.3.1 Drop test

4.3.1.1 Definition

This test is defined in EN 302 885-1 [1], clause 7.3.1.

4.3.1.2 Requirement

The equipment shall meet the requirements of the performance check defined in EN 302 885-1 [1], clause 7.3.3.

4.3.1.3 Conformance

Relevant environment tests as defined in clause 5.3.1.4 shall be carried out.

4.3.2 Temperature tests

4.3.2.1 Definition

This series of tests is defined in EN 302 885-1 [1], clause 7.4.1.