



**Communications Authority of Maldives**

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**Technical Standard  
for  
VHF Marine Radio with Class D, DSC**  
(Operating in the 156.025 - 157.425 MHz  
156.050 - 163.275 MHz bands)

CAM TS 101/2012-Marine VHF  
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<http://www.cam.gov.mv>

## 1 SCOPE OF STANDARD

- 1.1 This specification stipulates the minimum performance requirements for VHF radio installation capable of voice communication and digital selective calling as required by the 1988 amendments to the 1974 International Convention for Safety of Life at Sea (SOLAS) for the introduction of Global Maritime Distress and Safety System (GMDSS)
- 1.2 Equipment complying with this specification shall be required to meet all relevant performance standards adopted by the relevant IMO Resolution and technical characteristics as defined in the relevant ITU's Radio Regulations and Recommendation for the concerned equipment.

## 2 TECHNICAL REQUIREMENT

- 2.1 VHF radio installation capable of voice communications and digital selective calling shall comply with the basic technical requirement as defined in:-
- 2.2 Marine VHF radio shall meet the following technical parameters

Frequency band	156.025 to 157.425 MHz (TX), 156.050 to 163.275 MHz (RX)
Channeling	For ITU Radio Regulations Appendix 18 International channels: ITU-R M.1084-2 G3E, G2B (DSC Ch 70) with 25 kHz channel spacing
Modulation	16K0G3E, 16K0G2B (DSC)
DSC Standard	Class D -- ITU-R M493-11 or higher, EN 301 025
Transmitting power	25 W (Fixed Mobile)
GPS Interface standard	NMEA 0183 or IEC 61162-3

## 3 COMPLIANCE

The VHF radio installations capable of voice communications and digital selective calling shall be evaluated in accordance with following technical standards:

- 3.1 IEC 61097-3 "Global Maritime Distress and Safety System (GMDSS)-part 3: Digital Selective Calling (DSC) equipment –Operational and performance requirements, methods of testing results", published by the International Electrotechnical Commission (IEC)
- 3.2 IEC 61097-7 "Global Maritime Distress and Safety System (GMDSS)-part 7: Ship borne VHF radiotelephone transmitter and receiver –Operational and performance requirement, methods to testing and required test results" published by the International Electrotechnical Commission (IEC) .

#### **4 SAFETY AND HEALTH**

ETSI EN 301 025-3 V1.4.1 (2010-09)

Electromagnetic compatibility and Radio spectrum Matters (ERM); VHF radiotelephone equipment for general communications and associated equipment for Class "D" Digital Selective Calling (DSC); Part 3: Harmonized EN covering the essential requirements of article 3.3(e) of the R&TTE Directive

EN 300 828 V1.1.1 (1998-03)

Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility (EMC) for radiotelephone transmitters and receivers for the Maritime mobile service operating in the VHF bands

ETSI EN 301 843-2 V1.2.1 (2004-06)

Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic Compatibility (EMC) standard for marine radio equipment and services; Part 2: Specific conditions for VHF radiotelephone transmitters and receivers

#### **5 AMENDMENTS AND DECISION**

- 5.1 Type approval of the equipment will be granted on the basis of satisfactory document evaluation of the certificate issued by the competent overseas authorities for the equipment.
- 5.2 The Communications Authority of the Maldives may amend any part of this specification as and when he deems necessary.
- 5.3 The Communications Authority of Maldives reserves right to conduct tests or evaluation on the models he considers to be technical variants and whose performance may differ as between models.
- 5.4 In case of doubt about the interpretation of this specification, the methods of carrying out the test and the validity of the statements made by the manufacturers of the equipment, the decision of the Communications Authority of the Maldives shall be final.

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