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**Global maritime distress and safety system (GMDSS) –
Part 9: Shipborne transmitters and receivers for use in the MF and HF bands suitable for telephony, digital selective calling (DSC) and reception of maritime safety information and search and rescue related information – Operational and performance requirements, test methods and required test results**

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IEC Secretariat
3, rue de Varembé
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

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CONTENTS

FOREWORD....13
1 Scope....15
2 Normative references....15
3 Terms and definitions and abbreviated terms....16
3.1 Terms and definitions....16
3.2 Abbreviated terms....19
4 Performance requirements....20
4.1 General....20
4.2 Power supplies....21
4.3 Control and indicators....21
4.3.1 Operational controls....21
4.3.2 Transmitter controls....21
4.3.3 Receiver controls....22
4.3.4 DSC controls and indicators....22
4.4 Interfaces....22
4.5 Distress controls....25
4.6 Control panel priority....26
4.7 Labels....26
4.8 Safety precautions....26
4.9 Manuals....26
4.10 Software maintenance....27
4.11 Bridge alert management (BAM)....27
5 Transmitter....27
5.1 Frequencies and classes of emission....27
5.2 Frequency accuracy and stability....28
5.3 Output power....28
5.4 Transmitter input....28
5.5 Permissible warming-up period....29
5.6 Continuous operation....29
5.7 Safety precautions....29
5.8 Power of out of band emissions....29
5.9 Power of conducted spurious emissions....29
5.10 Residual hum and noise....30
5.11 Residual frequency modulation on DSC....30
5.12 Modulation rate of DSC....30
6 Receiver....30
6.1 Frequencies and classes of emission....30
6.2 Frequency tolerance and accuracy....31
6.3 Usable sensitivity....31
6.4 Receiver output....31
6.5 Permissible warming-up period....31
6.6 Immunity to interference....31
6.7 Antenna static protection....31
6.8 Noise reducer....32
6.9 Audiofrequency gain control and automatic gain control (AGC)....32
6.10 Unwanted frequency modulation....32

6.11 Audiofrequency pass band 32
6.12 Conducted spurious emissions into the antenna 32
7 Digital selective calling facility 32
7.1 DSC capabilities 32
7.2 Distress message storage 33
7.3 DSC characteristics 33
8 Facility for the reception of MSI 33
8.1 General 33
8.2 Controls and indicators 33
8.3 Receiver 34
8.4 Display device and printer 35
8.5 Storage 35
8.5.1 Non-volatile message memory 35
8.5.2 Message identifications 36
8.5.3 Programmable control memories 36
8.6 Alert 36
8.7 Test facilities 36
8.8 Interfaces 37
9 Automatic connection system 37
9.1 General 37
9.2 Transmitter 37
9.3 Receiver 37
10 Test methods and required test results 38
10.1 Test conditions 38
10.1.1 Normal and extreme test conditions 38
10.1.2 Procedure for tests at extreme temperatures 38
10.1.3 Test power source 38
10.2 General requirements 38
10.3 General conditions of measurement 39
10.3.1 Arrangements for test signals applied to the receiver input 39
10.3.2 Normal test signals applied to the receiver input 39
10.3.3 Arrangements for test signals applied to the transmitter input 39
10.3.4 Normal test signals applied to the transmitter input 39
10.3.5 Artificial antennas 39
10.3.6 Testing frequencies 39
10.3.7 Bit error rate testing 40
10.3.8 Measurement uncertainty 40
10.4 Tests by inspection 40
10.4.1 General 40
10.4.2 Power supplies 41
10.4.3 Operational controls 41
10.4.4 Transmitter controls 42
10.4.5 Receiver controls 42
10.4.6 DSC controls and indicators 42
10.4.7 Interfaces 43
10.4.8 Distress controls 44
10.4.9 Control panel priority 45
10.4.10 Labels 45

10.4.11 Safety precautions 45
10.4.12 Software maintenance 46
10.4.13 DSC capabilities 46
10.4.14 Distress message storage 46
11 Transmitter 47
11.1 Frequencies and classes of emission 47
11.2 Frequency error 47
11.2.1 General 47
11.2.2 Test methods 47
11.2.3 Required results 47
11.3 Output power and intermodulation products 47
11.3.1 General 47
11.3.2 Test methods 48
11.3.3 Required results 48
11.4 Unwanted frequency modulation 49
11.4.1 General 49
11.4.2 Test methods 49
11.4.3 Required results 50
11.5 Sensitivity of the microphone 50
11.5.1 General 50
11.5.2 Test methods 50
11.5.3 Required results 50
11.6 Automatic level control and/or limiter for SSB telephony 50
11.6.1 General 50
11.6.2 Test methods 50
11.6.3 Required results 51
11.7 Audiofrequency response using SSB telephony 51
11.7.1 General 51
11.7.2 Test methods 52
11.7.3 Required results 52
11.8 Power of out-of-band emissions using SSB telephony 52
11.8.1 General 52
11.8.2 Test methods 53
11.8.3 Required results 53
11.9 Power of conducted spurious emissions of SSB telephony 53
11.9.1 General 53
11.9.2 Test methods 53
11.9.3 Required results 53
11.10 Residual hum and noise power using telephony 53
11.10.1 General 53
11.10.2 Test methods 54
11.10.3 Required results 54
11.11 Residual frequency modulation on DSC 54
11.11.1 General 54
11.11.2 Test methods 54
11.11.3 Required results 54
11.12 Carrier suppression 55
11.12.1 General 55
11.12.2 Test methods 55

11.12.3 Required results....55
11.13 Continuous operation....55
11.13.1 General....55
11.13.2 Test methods....55
11.13.3 Required results....55
11.14 Protection of the transmitter....56
11.14.1 General....56
11.14.2 Test methods....56
11.14.3 Required results....56
11.15 Standing wave ratio control....56
11.15.1 General....56
11.15.2 Test methods....56
11.15.3 Required results....56
11.16 Residual RF noise power....57
11.16.1 General....57
11.16.2 Test methods....57
11.16.3 Required results....57
11.17 Modulation rate of DSC....57
11.17.1 General....57
11.17.2 Test methods....57
11.17.3 Required results....58
12 Audio receiver....58
12.1 Audiofrequency output levels....58
12.1.1 General....58
12.1.2 Test methods....58
12.1.3 Required results....58
12.2 Frequency error....58
12.2.1 General....58
12.2.2 Test methods....58
12.2.3 Required results....59
12.3 Unwanted frequency modulation....59
12.3.1 General....59
12.3.2 Test methods....59
12.3.3 Required results....59
12.4 Audiofrequency pass band....59
12.4.1 General....59
12.4.2 Test methods....59
12.4.3 Required results....60
12.5 Maximum usable sensitivity....60
12.5.1 General....60
12.5.2 Test methods....60
12.5.3 Required results....60
12.6 Harmonic content in output....61
12.6.1 General....61
12.6.2 Test methods....61
12.6.3 Required results....61
12.7 Adjacent channel selectivity....61
12.7.1 General....61
12.7.2 Test methods....61

12.7.3 Required results....62
12.8 Blocking....62
12.8.1 General....62
12.8.2 Test methods....62
12.8.3 Required results....63
12.9 Cross-modulation....63
12.9.1 General....63
12.9.2 Test methods....63
12.9.3 Required results....63
12.10 Intermodulation....63
12.10.1 General....63
12.10.2 Test methods....64
12.10.3 Required results....64
12.11 Spurious response rejection ratio....64
12.11.1 General....64
12.11.2 Test methods....64
12.11.3 Required results....65
12.12 Audiofrequency intermodulation....65
12.12.1 General....65
12.12.2 Test methods....66
12.12.3 Required results....66
12.13 Conducted spurious emissions into the antenna....66
12.13.1 General....66
12.13.2 Test methods....66
12.13.3 Required results....66
12.14 Internally generated spurious signals....66
12.14.1 General....66
12.14.2 Test methods....66
12.14.3 Required results....67
12.15 Improvement in signal-to-noise ratio with AGC....67
12.15.1 General....67
12.15.2 Test methods....67
12.15.3 Required results....67
12.16 AGC range....67
12.16.1 General....67
12.16.2 Test methods....67
12.16.3 Required results....67
12.17 AGC time constants (attack and recovery time)....68
12.17.1 General....68
12.17.2 Test methods....68
12.17.3 Required results....68
12.18 Reciprocal mixing....68
12.18.1 General....68
12.18.2 Test methods....68
12.18.3 Required results....69
12.19 Protection of input circuits....69
12.19.1 General....69
12.19.2 Test methods....69
12.19.3 Required results....69

13 DSC receiver 69
13.1 DSC test signals 69
13.1.1 References to standard DSC signals 69
13.1.2 Standard test signal No. 1 (STS-1) 69
13.1.3 Standard test signal No. 2 (STS-2) 69
13.1.4 Symbol error rate at the DSC receiver 69
13.2 Maximum usable sensitivity 70
13.2.1 General 70
13.2.2 Test methods 70
13.2.3 Required results 70
13.3 Adjacent channel selectivity 70
13.3.1 General 70
13.3.2 Test methods 70
13.3.3 Required results 71
13.4 Co-channel rejection 71
13.4.1 General 71
13.4.2 Test methods 71
13.4.3 Required results 71
13.5 RF intermodulation response 71
13.5.1 General 71
13.5.2 Test methods 71
13.5.3 Required results 72
13.6 Spurious response rejection 72
13.6.1 General 72
13.6.2 Test methods 72
13.6.3 Required results 73
13.7 Blocking immunity 73
13.7.1 General 73
13.7.2 Test methods 73
13.7.3 Required results 73
13.8 Dynamic range 73
13.8.1 General 73
13.8.2 Test methods 74
13.8.3 Required results 74
13.9 Conducted spurious emissions into the antenna 74
13.9.1 General 74
13.9.2 Test methods 74
13.9.3 Required results 74
13.10 Protection of receiver antenna input circuits 74
13.10.1 General 74
13.10.2 Test methods 75
13.10.3 Required results 75
13.11 Stop/start of scanning efficiency 75
13.11.1 General 75
13.11.2 Test methods 75
13.11.3 Required results 75
14 MSI receiver 75
15 Automatic connection system 75
Annex A (normative) DSC operation 76

A.1 General....76
A.2 Naming convention of DSC message types....76
A.3 Test setup....77
A.3.1 General....77
A.3.2 Test methods....78
A.4 Non-automated features....78
A.4.1 Non-automated features requirements....78
A.4.2 Non-automated features tests....83
A.5 Standby....97
A.5.1 Standby requirements....97
A.5.2 Standby tests....98
A.6 Sending distress automated procedure....99
A.6.1 Sending distress automated procedure requirements....99
A.6.2 Sending distress automated procedure tests....105
A.7 Received distress automated procedure....113
A.7.1 Received distress automated procedure requirements....113
A.7.2 Received distress automated procedure tests....116
A.8 Sending non-distress automated procedure....126
A.8.1 Sending non-distress automated procedure requirements....126
A.8.2 Sending non-distress automated procedure tests....129
A.9 Received non-distress automated procedure....133
A.9.1 Received non-distress automated procedure requirements....133
A.9.2 Received non-distress automated procedure tests....136
A.10 Communications automated procedure....140
A.10.1 Communications automated procedure requirements....140
A.10.2 Communications automated procedure tests....141
A.11 Multiple automated procedures and parallel event handling....141
A.11.1 Multiple automated procedures and parallel event handling requirements....141
A.11.2 Multiple automated procedures and parallel event handling tests....142
A.12 Error handling in the automated procedures....152
A.12.1 Error handling requirements....152
A.12.2 Error handling tests....154
Annex B (normative) DSC message composition....158
B.1 Default values....158
B.2 The default DROBOSE....159
B.3 Allowable non-distress DSC message parameters....159
Annex C (normative) Radius-centre point conversion and rounding algorithm....160
C.1 Radius-centre point conversion....160
C.2 Rounding....161
C.3 Special cases for either form of area data entry....161
Annex D (normative) Audible annunciation and BAM alert signalling....162
D.1 Audible alert specifications....162
D.2 Alerting with critical errors....164
D.3 Default audible alert sounds....164
Annex E (normative) MSI receiver for HF NBDP, test methods and required test results....166
E.1 General....166
E.2 Test conditions....166

E.2.1 Standard test signal 166
E.2.2 Standard test file 167
E.2.3 Arrangement for test signal applied to the receiver input 167
E.2.4 Artificial antenna 167
E.2.5 Character error rate 167
E.3 Serial interface tests 167
E.3.1 INS interface performance tests 167
E.3.2 Printer tests 168
E.4 General and signal processing tests 168
E.4.1 Preamble characters 168
E.4.2 Exclusion of message categories 168
E.4.3 Search and rescue alert provision and reset 169
E.4.4 Non-preamble B_1 B_2 B_3 B_4 message 169
E.4.5 Receiver test facility 170
E.5 Receiver tests 170
E.5.1 General 170
E.5.2 Call sensitivity 170
E.5.3 Interference rejection and blocking immunity 170
E.5.4 Co-channel rejection 171
E.5.5 Intermodulation 171
E.5.6 Off-frequency transmitter 172
E.5.7 Frequency sequence and UTC broadcast schedules of all stations 172
E.5.8 Automatic reception of HF-MSI using DSC 174
E.5.9 Protection of input circuits 174
E.6 Printer tests 174
E.6.1 Basic requirements 175
E.6.2 Automatic line feed indication and paper feed 175
E.6.3 Mutilated character indication 175
E.6.4 Tests of technical characteristics 175
E.7 Memory tests 176
E.7.1 General 176
E.7.2 Internal storage, message tagging and erasure of oldest message identifications 176
E.7.3 Erasure of message identifications with storage times 178
E.7.4 Power-off check 179
Annex F (normative) ACS operation 180
F.1 General 180
F.2 Test condition 180
F.3 Transmitter 180
F.3.1 General 180
F.3.2 Frequency error 180
F.3.3 Output power and intermodulation products 180
F.3.4 Unwanted frequency modulation 180
F.3.5 Residual frequency modulation on DSC 180
F.3.6 Continuous operation 180
F.3.7 Protection of the transmitter 181
F.4 Receiver 181
F.4.1 General 181
F.4.2 Maximum usable sensitivity 181

F.4.3 Adjacent channel selectivity 181
F.4.4 RF intermodulation response 181
F.4.5 Spurious response rejection 181
F.4.6 Blocking immunity 181
F.4.7 Dynamic range 181
F.4.8 Conducted spurious emissions into the antenna 181
F.4.9 Protection of receiver antenna input circuits 181
F.4.10 Stop/start of scanning efficiency 181
F.5 ACS operational tests 181
F.5.1 General 181
F.5.2 Test setup 182
F.5.3 Scanning 182
F.5.4 Calling station 182
F.5.5 Called station 188
Annex G (normative) Implementation of bridge alert management 201
G.1 Classification of BAM alerts 201
G.1.1 Requirements 201
G.1.2 Test methods and required results 202
G.2 Bridge alert management 202
G.2.1 General requirements 202
G.2.2 Unacknowledged BAM warnings 202
G.2.3 Remote acknowledgement and silencing of BAM alerts 202
G.3 BAM alert source identification and reporting in ALF sentence 203
G.3.1 General requirements 203
G.3.2 Receipt of distress or urgency call 204
G.3.3 Receipt of calls other than distress or urgency 206
G.3.4 Automatic position ceased 207
G.3.5 Position older than 4 h 207
G.3.6 Antenna tuner error or other detected antenna failures 208
G.3.7 Transmission power error or otherwise inhibited transmission 209
G.3.8 Receipt of MSI 210
Annex H (normative) Manufacturer's declarations and equipment manual 212
Annex I (normative) Sentences to support HF-MSI operation 213
I.1 General 213
I.2 NRM – MSI received mask 213
Annex J (normative) Remote control operation using DSC sentence 215
J.1 General 215
J.2 Requirements 215
J.2.1 Operational requirements 215
J.2.2 Technical requirements 216
J.3 Tests and required results 216
J.3.1 General 216
J.3.2 Test for input of DSC sentence and resulting transmission of DSC call 216
Bibliography 218
Figure 1 – Interfaces of the equipment 23
Figure 2 – Limits for unwanted emission (MF/HF transmitter) 49
Figure 3 – Limits for automatic level control 51
Figure 4 – Limits for audiofrequency response 52

Figure A.1 – Tests and error checks 82
Figure B.1 – Loading DSC defaults 158
Figure C.1 – Circle-radius to lat-lon box 160

Table 1 – Sentences input to the equipment for position information 24
Table 2 – Sentences output from the equipment 24
Table 3 – Sentences input to the equipment 24
Table 4 – Sentences output from the equipment for BNWAS 24
Table 5 – Sentences output from the equipment for CAM 24
Table 6 – Sentences input to the equipment for CAM 25
Table 7 – Distress frequencies 26
Table 8 – Power of out-of-band emissions 29
Table 9 – Conducted spurious emissions 30
Table 10 – Maximum useable sensitivity 60
Table 11 – Class of emission J3E 62
Table A.1 – Geographic area tests 89
Table A.2 – Verification of DROBOSEs (1) to (8) 91
Table A.3 – DSC messages to send from the EUT 93
Table A.4 – Transmission test results 94
Table A.5 – DSC messages to send from the TE 143
Table A.6 – Communication procedure tests 144
Table A.7 – Verification required without acknowledgement 145
Table A.8 – Verification required with acknowledgement 145
Table A.9 – Verification required without acknowledgement 146
Table A.10 – Verification required with acknowledgement 146
Table A.11 – Verification required with MMSI ship station 147
Table A.12 – Verification required with MMSI coast station 147
Table A.13 – DSC messages 148
Table A.14 – DSC messages to be sent from the TE 148
Table A.15 – Verification required before activation of received distress procedure 149
Table A.16 – Verification required after activation of received distress procedure 149
Table A.17 – DSC messages to send from the TE 149
Table B.1 – Default DROBOSE 159
Table B.2 – Allowable parameter combinations 159
Table D.1 – Audible characteristics 162
Table D.2 – Non-configurable alarm sounds 165
Table D.3 – Recommended alert sounds 165
Table E.1 – Unwanted signal levels 171
Table E.2 – Intermodulation frequency pairs 172
Table F.1 – Test conditions and required results for MF/HF 188
Table F.2 – Test conditions and required results for MF 190
Table G.1 – Classification of GMDSS equipment alerts for BAM purposes 201
Table G.2 – BAM alert text in ALF sentence for cause distress 205

Table G.3 – BAM alert text in ALF sentence in case of "urgency" 206
Table G.4 – BAM alert text in ALF sentence for received calls other than distress and urgency 206
Table G.5 – BAM alert text in ALF sentence in case of no position data received by equipment 207
Table G.6 – BAM alert text in ALF sentence in case of position older than 4 h 207
Table G.7 – BAM alert text in ALF sentence in case of antenna or antenna tuner failure 208
Table G.8 – BAM alert text in ALF sentence for cause transmission power inhibit or failure 209
Table G.9 – BAM alert text in ALF sentence for MSI 210
Table G.10 – BAM alert text in ALF sentence for MSI 211

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GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM (GMDSS) –

Part 9: Shipborne transmitters and receivers for use in the MF and HF bands suitable for telephony, digital selective calling (DSC) and reception of maritime safety information and search and rescue related information – Operational and performance requirements, test methods and required test results

FOREWORD

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IEC 61097-9 has been prepared by IEC technical committee 80: Maritime navigation and radiocommunication equipment and systems. It is an International Standard.

This second edition cancels and replaces the first edition published in 1997. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) the text has been updated to incorporate the provisions of the new IMO performance standards given in Resolution MSC.512(105) and new ITU-R recommendations given in M.493-16. These provisions in particular add new requirements for reception of maritime safety information and for the automatic connection system;
b) the provisions for digital selective calling which were previously in IEC 61097-3 have been incorporated;
c) the provisions for watch keeping receivers which were previously in IEC 61097-8 have been incorporated;
d) new requirements have been added for software maintenance in 4.10 in support of IMO recommendations;
e) new Annex A, Annex B and Annex C have been added for digital selective calling;
f) new Annex D and Annex G have been added for bridge alert management;
g) new Annex E and Annex I have been added for maritime safety information;
h) a new Annex F has been added for the automatic connection system;
i) a new Annex H has been added for equipment manuals;
j) a new Annex J has been added for remote control operation;
k) previous Annex A, Annex B and Annex C have been deleted as they are no longer relevant.

The text of this International Standard is based on the following documents:

Draft	Report on voting
80/1152/FDIS	80/1158/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

A list of all parts in the IEC 61097 series, published under the general title *Global maritime distress and safety system (GMDSS)*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM (GMDSS) –

Part 9: Shipborne transmitters and receivers for use in the MF and HF bands suitable for telephony, digital selective calling (DSC) and reception of maritime safety information and search and rescue related information – Operational and performance requirements, test methods and required test results

1 Scope

This part of IEC 61097 specifies the minimum operational and performance requirements and test methods with required test results for transmitters and receivers capable of voice communication and digital selective calling for the GMDSS operating in either the medium frequency band only or in medium and high frequency bands allocated in the ITU Radio Regulations to the Maritime Mobile Service, as required by Chapter IV of SOLAS 1974 as amended. It is based on IMO resolution MSC.512(105) and takes account of Recommendation ITU-R M.493 for digital selective calling including the automatic connection system.

This document also takes account of the general requirements given in IMO resolution A.694(17) and is associated with IEC 60945. When a requirement in this document is different from that in IEC 60945, the requirement of this document shall take precedence. It further takes account, as appropriate, of requirements for the presentation of navigation-related information on shipborne navigational displays given in IMO resolution MSC.191(79) as amended and is associated with IEC 62288, and the requirements of IMO resolution MSC.302(87) for Bridge Alert Management and is also associated with IEC 62923-1 and IEC 62923-2.

This document also specifies the reception of maritime safety information and search and rescue related information by HF based on IMO resolution MSC.508(105).

NOTE 1 The necessity of HF NBDP (HF-MSI) as part of MF/HF radio facility is determined by the national administration by which the MF/HF radio facility is certified in accordance with this document.

NOTE 2 All text of this document the wording of which is identical to that in IMO Resolutions and to that in the relevant ITU-R Recommendations is printed in *italics* and is prefixed by references in brackets.

NOTE 3 This document introduces requirements, tests and their required results in the context of digital selective calling (DSC) as defined by ITU-R recommendations such as ITU-R M.493, and in the context of bridge alert management (BAM) as defined by IMO MSC.302(87) and IEC 62923-1. Certain terms, such as "alert", "warning" and "priority" can have different meanings depending on the context in which the term is used. The meaning of specific terms used in this document is as defined in the context of DSC unless specifically expressed otherwise. For example: the expression "BAM alert" is used to indicate that the term "alert" is used in the context of BAM in that instance. Annex D provides further specifications on mapping of signals between the context of DSC and the context of BAM.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60945, *Maritime navigation and radiocommunication equipment and systems – General requirements – Methods of testing and required test results*

IEC 61108 (all parts), *Maritime navigation and radiocommunication equipment and systems – Global navigation satellite systems (GNSS)*

IEC 61162-1, *Maritime navigation and radiocommunication equipment and systems – Digital interfaces – Part 1: Single talker and multiple listeners*

IEC 61162-2, *Maritime navigation and radiocommunication equipment and systems – Digital interfaces – Part 2: Single talker and multiple listeners, high-speed transmission*

IEC 61162-450, *Maritime navigation and radiocommunication equipment and systems – Digital interfaces – Part 450: Multiple talkers and multiple listeners – Ethernet connection*

IEC 62288, *Maritime navigation and radiocommunication equipment and systems – Presentation of navigation-related information on shipborne navigational displays – General requirements, methods of testing and required test results*

IEC 62923-1, *Maritime navigation and radiocommunication equipment and systems – Bridge alert management – Part 1: Operational and performance requirements, methods of testing and required test results*

ITU *Radio Regulations*

Recommendation ITU-R M.493-16:2023, *Digital selective-calling system for use in the maritime mobile service*

Recommendation ITU-R M.540-2:1990, *Operational and technical characteristics for an automated direct-printing telegraph system for promulgation of navigational and meteorological warnings and urgent information to ships*

Recommendation ITU-R M.541-11:2023, *Operational procedures for the use of digital selective calling equipment in the maritime mobile service*

Recommendation ITU-R M.625-4:2012, *Direct-printing telegraph equipment employing automatic identification in the maritime mobile service*

Recommendation ITU-R M.688, *Technical characteristics for a high frequency direct-printing telegraph system for promulgation of high seas and NAVTEX-type maritime safety information*