

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate no.:
MEDB00002AU
Revision No:
12

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV AS under the authority of the Government of Norway.

This is to certify:
that the Radar equipment

with type designation(s)
FAR-2218, FAR-2218-BB, FAR-2228, FAR-2228-BB, FAR-2228-NXT, FAR-2228-NXT-BB, FAR-2238S, FAR-2238S-BB, FAR-2238S-NXT, FAR-2238S-NXT-BB, FAR-2318, FAR-2328, FAR-2328W, FAR-2328-NXT, FAR-2338SW, FAR-2338S, FAR-2338S-NXT, FAR-2018-MARK-2, FAR-2028-MARK-2

issued to
Furuno Electric Co., Ltd.
Nishinomiya, Hyogo Pref, Japan

is found to comply with the requirements in the following Regulations/Standards:

Regulation (EU) 2024/1975,
item No. MED/4.64 SOLAS 74 as amended, Reg. V/18, 19, X/3, IMO Res. MSC.36(63)-(1994 HSC Code) 13, IMO Res. MSC.97(73)-(2000 HSC Code) 13, IMO Res. A.278 (VIII), A.694(17), MSC.191(79), 192(79), 302(87), IMO MSC.1/Circ.1349, ITU-R M.1177-4 (04/11)

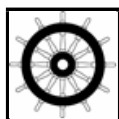
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2026-08-29**.

Issued at **Høvik** on **2024-09-04**

DNV local unit:
Japan CMC

Approval Engineer:
Steinar Kristensen



for **DNV AS**

Notified Body
No.: **0575**

Mydlak-Röder, Christine
Head of Notified Body

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F), as allowed by the "Agreement between the United States of America and the EEA EFTA states on the mutual recognition of Certificates of Conformity for Marine Equipment" signed 17 October 2005, and amended by Decision No 1/2023 dated August 21st, 2023.



The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

The Radars FAR-2218, FAR-2218-BB, FAR-2228, FAR-2228-BB, FAR-2228-NXT, FAR-2228-NXT-BB, FAR-2238S, FAR-2238S-BB, FAR-2238S-NXT, FAR-2238S-NXT-BB and FAR-2318, FAR-2328, FAR-2328W, FAR-2328-NXT, FAR-2338SW, FAR-2338S, FAR-2338S-NXT, FAR-2018-MARK-2, FAR-2028-MARK-2 consist of the following units:

Unit	Location
Processor Unit	Protected
Monitor Unit	Protected
Radar Control Unit	Protected
Data interface	Protected
Transceiver unit (Up-mast)	Exposed
or Transceiver unit (down-mast)	Protected
Antenna unit	Exposed

For details, see Appendix.

Application/Limitation

- The radar types FAR-23x8(-nn) and FAR-20x8(-nn) is found to be in compliance with RADAR for ships and high speed crafts; CAT 1, CAT 2, CAT 3, CAT 1H and CAT 2H (dependent of monitor installed, and antenna rpm).
- The radar types FAR-22x8(-nn) and FAR-20x8(-nn) is found to be in compliance with RADAR for ships and high speed crafts; CAT 2, CAT 3 and CAT 2H (dependent of monitor installed and antenna rpm).
- The radar types FAR-2xx8(-nn) CAT 1H/2H: -antenna rotation shall be setup to 42 rpm;
- The FAR-radar supports a DVI-I port and Ethernet port in compliance with IEC 61996-1 for interconnection with the VDR.
- The DVI interface shall be used for video signal transfer between Processor Unit and Monitor Unit.
- The FAR-radar shall be installed and tested onboard in accordance with the pertinent Installation Manual (ref. appendix)

Type Examination documentation

- See Appendix.

Tests carried out

- IEC 62388 (2013)
- IEC 61162-1 (2016)
- IEC 61162-2 (1998)
- IEC 61162-450 (2018)
- IEC 62288 (2021)
- IEC 60945 (2002) incl. Corr.1(2008)
- IEC 62923-1 (2018) and IEC 62923-2 (2018)

Marking of product

The type designation and name and contact address of the manufacturer shall be affixed visibly, legibly and indelibly to the product. In addition the product shall be marked with serial number, safe distance to magnetic compass, power consumption and/or supply voltage.

USCG Approval for ARPA/ATA/EPA (CAT 1/CAT 2/CAT 3/CAT 1H/CAT 2H)

The product has been assigned a **U.S. Coast Guard Module B number**, USCG approvals 165.115/EC0575, 165.116/EC0575, 165.117/EC0575, 165.216/EC0575 and 165.217/EC0575 as applicable, to note type approval to Module B only as it pertains to obtaining US Coast Guard approval as allowed by the "Agreement between the United States of America and the EEA/EFTA states on the mutual recognition of certificates of conformity for marine equipment" signed 17 October 2005 and amended August 21st 2023.

The RADAR transceiver is not covered by the agreement and must have separate U.S. certification for installation on U.S. flagged vessels.

APPENDIX

Product description

The CAT 1/1H radars FAR-2318, FAR-2328, FAR-2328W, FAR-2328-NXT, FAR-2338SW, FAR-2338S, FAR-2338S-NXT, FAR-2018-MARK-2, FAR-2028-MARK-2 and the CAT 2/3/2H radars FAR-2218, FAR-2218-BB, FAR-2228, FAR-2228-BB, FAR-2228-NXT, FAR-2228-NXT-BB, FAR-2238S, FAR-2238S-BB, FAR-2238S-NXT, FAR-2238S-NXT-BB, FAR-2018-MARK-2, FAR-2028-MARK-2 comprise combinations of the following components:

Unit	Model Name	Components	Remark
Processor Unit	RPU-025		
Data Interfaces (embedded)	03P9648	I/O board	IEC61162-2/
	03P9652		IEC61162-1
	Ethernet 100 Base-T	2 ports	IEC61162-450
	VDR-connection	DVI-I or Ethernet	LAN2 port
	HMC-200CE-A	LAN signal converter	option
Monitor Unit for CAT 1/2/3/1H/2H	MU-231 or MU-270W or WE270FU or HD26T21 MMD-MAx or HD26T22 FUD-MAx or HD27T22 FUD-MAx or HD32T22 FUD-MAx or HD32T40 FUD-xAx or HD55T22 FUD-xAx or HD55T40 FUD-xAx or JH 23T14 FUD-xx1 or WA460-01-MON-01-xxFU or WA270-01-MON-01-xxFU		x=variable letter/number according to manufacturer's type number identification
Optional Monitor Unit for CAT 2/3/2H	MU-190 or MU-192 or MU-192HD or HD24T22 FUD-MAx or HD24T21 MMD-MAx or HD19T22 FUD-MAx or JH 19T14 FUD-xx1 or JH 20T17 FUD-xx1		
Optional Monitor Unit for CAT 3	MU-152or HD15T22 FUD-MAxor JH 15T17 FUD-xx1		
Radar Control Unit	RCU-014 or RCU-015 and RCU-016 ¹⁾		¹⁾ optional

Unit	Model Name	Components		Remark
X-band Transceiver		<i>Transceiver Unit</i>	<i>Antenna Unit</i>	
	FAR-2318 FAR-2218(-BB)*	RTR-105	XN12CF-RSB-128 XN20CF-RSB-128 XN24CF-RSB-128	4 ft 6.5 ft *CAT 2/3/2H 8 ft
	FAR-2328 FAR-2228(-BB)*	RTR-106	XN12CF-RSB-128 XN20CF-RSB-128 XN24CF-RSB-128	
	FAR-2328W	RTR-108	XN20CF-RSB-130 XN24CF-RSB-130	
	FAR-2328-NXT FAR-2228-NXT(-BB)*	RTR-123	XN12CF-RSB128 XN20CF-RSB128 XN24CF-RSB128	Solid State *CAT 2/3/2H
	FAR-2018-MARK-2	RTR-131	XN12AF-RSB146 XN20AF-RSB146 XN24AF-RSB146	
	FAR-2028-MARK-2	RTR-132	XN12AF-RSB146 XN20AF-RSB146 XN24AF-RSB146	
S-band Transceiver	FAR-2338S FAR-2238S(-BB)*	RTR-107	SN36CF-RSB-129	12.5 ft *CAT 2/3/2H
	FAR-2338SW	RTR-109	SN36CF-RSB-131	
	FAR-2338S-NXT FAR-2238S-NXT(-BB)*	RTR-111	SN36CF-RSB-133	Solid State *CAT 2/3/2H
Performance monitors	PM-32A PM-32B PM-52A PM-52B	X-band X-band S-band S-band		Solid State
LAN switching HUB	HUB-100			Option – for proprietary LAN interface.
LAN intelligent HUB	HUB-3000			Option – for IEC 61162-450 external LAN interface.
Junction Box	RJB-001			Option
Software	0359377-xx.xx	RPU-025 (main)		
	0359380-xx.xx	RPU-025 (sub)		

Type Examination documentation

DNV No	Document ID	Rev.	Description
184	RNT-24-001	1	Procedure: Furuno, Color calibration procedure for MU-series Monitor Units
183	30999	0	Report: Applica, IEC 60945 test report for HD 55T40
181	OMC-44670-H10	H	Manual: Operator's manual for monitor unit MU-190/MU-192
180		2023-03-31	Manual: Hatteland, HD32T40 MVD-MAX-Cxxx
179		2023-03-31	Manual: Hatteland, HD55T40 MVD-MAX-Cxxx
178	K26-17-377	1	Report: Furuno, Colour Calibration Report for MU-192 Monitor Unit
177	LIC 12-24-010	1	Report: Labotech, IEC 62288 test report for MU-192
176	LIC 12-24-009	2024-04-18	Report: Labotech, IEC 60945 Operational checks, Maintenance, Manuals and Markings for MU-192

DNV No	Document ID	Rev.	Description
175	LIC 12-24-008	2024-04-10	Report: Labotech, IEC 60945 test report for MU-192
174	LIC 12-24-007	2024-04-10	Report: Labotech, IEC 60945 CSD test report for MU-192
173	LIC 12-24-006	2024-04-10	Report: Labotech, IEC 60945 Vibration test report for MU-192
172	LIC 12-24-005	2024-04-10	Report: Labotech, IEC 60945 EMC test report for MU-192
171	REP009121	A	Report: Nemko, IEC 60945 test report for HD 55T40 MVD-MA1-CAJG-ES02
170	31098	0	Report: Applicia, IEC 60945 and CG-0339 test report for HD 55T40
169	E21234.01	01	Report: Nemko, IEC60945 and CG-0339 test report for HD 55T40
165	DOC209185-1	01	Report: Hatteland, Flicker Test for HD 55T40
164	DOC209183-1	01	Report: Hatteland, IEC 62288/ IEC 61174/ IHO-S-52 test report for HD 55T40
163	230704001T	2023-09-28	Report: CAL-TECH, IEC60945 and CG-0339 test report for HD 32T40
160	CEBDLB-WTW-P23070246	2023-08-25	Report: BV, Partial IEC 60945 Test Report for HD 32T40
157	DOC209420-1	01	Report: Hatteland, IEC 62288 Minimum brightness test of buttons and status indicators HD 32T40
156	DOC209419-1	01	Report: Hatteland, IEC 62288 Minimum brightness test of buttons and status indicators
155	DOC209276-1	01	Report: Hatteland, IEC 62288 flicker test report for HD 32T40
154	DOC209275-1	01	Report: Hatteland, IEC 62288/ IEC 61174/ IHO-S-52 test report for HD 32T40
140	DELTA-L102798-475n	n=1,2,3	Test of Flicker from 15, 19, 20 inch monitors for use as ECDIS monitor
139	K03-17-3393-0	2023-09-22	Report: Furuno, Type Approval test report for FAR-2xx8 series and FAR-15x8 series marine radar according to IEC 62288 (2021)
138	NI/0004/rev1.0/2020	10-06-2020	Report: North Invent, IEC 62288-62388 WE270 Bridge Display
137	K03-17-3327	20 Oct 2022	Report: Furuno, Marine Radar FAR-3xx0/3xx8 series NorthInvent WE270FU
136	P18-0006	Rev. 2	Report: IEC60945 IACS E10 WE270 Monitor
135	15-2021	Rev. 1.0	Manual: Display WaveII-UM
134	TAA000028U	Rev. 2	Type Approval Certificate, Bridge Monitor WE270
133	TAA00002TT	Rev. 1	Type Approval Certificate, Bridge Monitor WE270
132	DOC205825-1	R08	Hatteland: HD 24T22 MMD - IEC 60945 & IACS E10 Statement_R08
131	PDF208404-1	REV 1	Report: HD 24T23 WAC-DFA-4GP0AA-1 Technical Report 191220001T
130	PDF202100-1	REV 0	Report: HD 24T22 MMD-MA1-FAGP Technical Report 2017-21008 Maritime
129	DOC209117-1	R01	Report: IEC62288 flicker test report HD 24T22 MMD-MA1-FAGA-30001
128	DOC209115-1	R01	Report: Conformance test report HD 24T22 MMD-MA1-FAGA-30001
127	DOC207208-1	R09	Hatteland: Statement of Manufactor Similarity for HD 24T22 FEC-MP9-4AAH1A
125	LIC 12-22-161	20 October 2022	Report: LABOTECH, IEC 62288 Furuno Marine Display MU-192HD
124	LIC 12-22-144	16 September 2022	Report: LABOTECH, IEC 60945 Vibration Furuno Marine Display MU-192HD
123	LIC 12-22-137	8 September 2022	Report: LABOTECH, IEC 60945 CSD Furuno Marine Display MU-192HD
122	LIC 12-22-136	8 September 2022	Report: LABOTECH, IEC 60945 excessive conditions, acoustic noise, VDU emission Furuno Marine Display MU-192HD
121	LIC 12-22-135	8 September 2022	Report: LABOTECH, IEC 60945 Temperature Furuno Marine Display MU-192HD
120	LIC 12-22-134	8 September 2022	Report: LABOTECH, IEC 60945 EMC Furuno Marine Display MU-192HD
119	DOC206850-2	Revision 01	Statement of Manufactor Similarity for HD 24T22 FUD-MA4-FAGx
118	K03-17-3278	2023.3.9	Report: Furuno IEC 62388 Ch. 6. Overseas Testing, Model: MARINE RADAR, Type: FAR-2018-MARK-2/2028-MARK-2, FAR-3015/3025

DNV No	Document ID	Rev.	Description
117	31140	1.0	Report: Applica IEC 62388 Ch.6 Overseas testing, Radar Test Report Furuno FAR-2018-MARK-2, FAR-2028-MARK-2, FAR-3015, FAR-3025
116	LIC12-22-007	10 February 2022	Report: LABOTECH, IEC 62388 Clause 15.5.2 Wind Tunnel, Model: MARINE RADAR, Type: FAR-2018-MARK-2/2028-MARK-2, FAR-3015/3025
114	LIC 12-22-143	9 September 2022	Report: LABOTECH ITU-R M.1177, FURUNO Model: Transceiver for MARINE RADAR FAR-2028-MARK-2, FAR-3025 Type: RTR-132
113	LIC12-22-142	9 September 2022	Report: LABOTECH ITU-R M.1177, FURUNO Model: Transceiver for MARINE RADAR FAR-2018-MARK-2, FAR-3015 Type: RTR-131
112	K03-17-3279	Rev.0 - 25th March 2	Report: Furuno, IEC 62388, 6.9.3.2, 6.9.3.3, 6.9.3.4, Performance in sea and rain clutter Model: FAR 2028 MARK 2 with XN 24A and Model: FAR-3015 with XN 12A F
110	LIC 12-22-126	31 August 2022	Report: LABOTECH. IEC 60945 and IEC 62388 (CSD) Marine Radar F AR-2028-MARK-2, FAR-3025
110	LIC 12-19-019	1	RPU-025: IEC60945 other test report
109	LIC 12-19-016	1	RPU-025: IEC60945 CSD test report
109	LIC 12-22-125	31 August 2022	Report: LABOTECH. IEC 60945 and IEC 62388 (Electromagnetic RF radiation) Marine Radar F AR-2028-MARK-2, FAR-3025
108	LIC 12-22-124	31 August 2022	Report: LABOTECH. IEC 60945 and IEC 62388 (Excessive conditions/dangerous voltage) Marine Radar F AR-2028-MARK-2, FAR-3025
108	LIC 12-19-015	1	RPU-025: IEC60945 env. test report
107	LIC 12-19-014	1	RPU-025. EMC test report
107	LIC 12-22-123	31 August 2022	Report: LABOTECH. IEC 60945 and IEC 62388 (TEMP) Marine Radar F AR-2028-MARK-2, FAR-3025
106	LIC 12-22-122	31 August 2022	Report: LABOTECH. IEC 60945 and IEC 62388 (EMC) Marine Radar F AR-2028-MARK-2, FAR-3025
105	LIC 12-22-089	31 August 2022	Report: LABOTECH. IEC 60945 and IEC 62388 (rain and spray) Marine Radar F AR-2028-MARK-2, FAR-3025
105	2010-3421	01	Report: DNV, JH 20T17 MMD EMC and environmental testing
104	2010-3253	01	Report: DNV, JH 20T17 MMD Radiated emission testing
104	LIC 12-22-088	31 August 2022	Report: LABOTECH. IEC 60945 and IEC 62388 (Vibration Shock) Marine Radar F AR-2028-MARK-2, FAR-3025
103	LIC 12-22-115	31 August 2022	Report: LABOTECH IEC 60945 (CSD) Marine Radar F AR-2018-MARK-2, FAR-3015
102	LIC 12-22-114	31 August 2022	Report: LABOTECH IEC 60945 (Electromagnetic RF radiation) Marine Radar F AR-2018-MARK-2, FAR-3015
102	LIC 12-17-074		MU-152 IEC62288 -CSD report
101	LIC 12-22-113	31 August 2022	Report: LABOTECH IEC 60945 (Dangerous voltage) Marine Radar F AR-2018-MARK-2, FAR-3015
101	LIC 12-17-073		MU-152 IEC62288 -test report
100	LIC 12-22-112	31 August 2022	Report: LABOTECH IEC 60945 (TEMP) Marine Radar F AR-2018-MARK-2, FAR-3015
100	LIC 12-17-072		MU-152 IEC60945 others -test report
99	LIC 12-22-111	31 August 2022	Report: LABOTECH IEC 60945, ETSI EN 301 843-1 and ETSI EN 302 248, Marine Radar F AR-2018-MARK-2, FAR-3015
99	LIC 12-17-071		MU-152 IEC60945 test report
98	LIC 12-22-087	31 August 2022	Report: LABOTECH IEC 60945 and IEC 62388 (Vibration/Shock) Marine Radar F AR-2018-MARK-2, FAR-3015
98	LIC 12-17-070		MU-152 EMC test report

DNV No	Document ID	Rev.	Description
97	LIC 12-17-020	26 May 2017	Report: LABOTECH IEC 60945, MARINE RADAR FAR-2218/2218-BB/2318/2228/2228-BB/2328/2328W/2238S/2238S-BB/2338S/2338SW/2238S-NXT/2238S-NXT-BB/2338S-NXT
96	Applica 21008	0	Report: Applica, HD 24T22 MMD IEC60945 testing
94	VS-TV-060720-04		Vibration test: HD 19T22 MMD-MA1-FHGA-ES-1
93	CW-109		Statement: Furuno: Statement for request to waive the corrosion test (8.12 OF IEC 60945: 2002 08) on MARINE RADAR Type FAR 2 018 MARK 2 2028 MARK 2
91	IME-36520-T30	2023-09-26	Manual: Furuno, Installation Manual for FAR-2xx8 series Marine Radar
90	Applica 20589	0	Report: Applica, HD15T21 MMC-M2N-PCAA EMC & environmental testing
90	OME-36520-M20	2023-09-26	Manual: Furuno, Operator's Manual for FAR-2xx8-series Marine Radar
89	DNV 2012-3177	0	HD15T21 MMD-FA1-FHGA: EMC & environmental testing
89	OSE-36520-E10	2202, REFU	Manual: Furuno, Operator's Guide Controls description for the RCU-014 Control Unit FAR2xx8 MARK2
88	Applica 21009	0	Report: Applica, HD26T22 MMD-MA1-FAGP-ES EMC & environmental testing
87	Applica 21120	0	Report: Applica, HD15T22 MMD-MA1-FOGA-ES Radiated emission & compass safe distance
86	Applica 21121	0	Report: Applica, HD15T22 MMD-MA1-FHGA-ES EMC & environmental testing
85	Applica 20588	0	Report: Applica, HD19T21 MMC-M2D-MBAA EMC & environmental testing
83	Applica 21122	0	Report: Applica, HD19T22 MMD-MA1-FOGA-ES EMC radiated emission
82	Applica 21089	0	Report: Applica, HD19T22 MMD-MA1 -EMC-FAGP-ES EMC testing
82	K03-17-3282	12th April 2022	Report: Furuno IEC62388 ed.2 (Target tracking scenarios, Association scenario 1-4) Result of TT Scenario Test Model : Marine Radar, Type : FAR-3015/3025
81	170421001T		HD19T22 MMD-MA1 -EMC-FAGP-ES: EMC & environmetal testing
80	170703002T		HD19T22 MMD-MA1 -EMC-FHGA-ES-1: EMC & environmetal testing
79	K03-17-3278	Appendix	Report: Furuno: DNVGL type approval testing report FAR-2018-MARK-2/2028-MARK-2/FAR-3015/3025
79	DNV 2010-3124	02	JH23T14 MMD-MA1 -EMC and environmental testing
77	DOC102116-1	1	JH23T14 MMD-MA1-AABA IEC62288 Conformance test report
76	DOC101909-1R3		Keypad P004511-1 minimum brightness test
75	DOC100829-6		JH23T14-MMD-MA1-OBA Flicker test
73	TAA00000S1		DNVGL TA-certificate Wave series monitors
71	doc205984-1		IEC62288: HD55T22 conformance test
70	doc205971-1		IEC62288: HD55T22 flicker test
69	Applica 21007	0	Report: Applica, HD55T22 EMC and environmental testing (2)
68	Applica 20869	1	Report: Applica, HD55T22 EMC and environmental testing
67	Nemko E16240.01		HD55T22 Vibration test
65	doc205992-1		IEC62288 conformance test report HD32T22
64	doc205970-1		IEC62288 flicker test HD32T22
63	doc206156-1	01	HD 27T22 MMD - IEC62288 FLICKER TEST
62	doc206155-1	1	HD 27T22 MMD-MA1-FAGA-ES: IEC62288 and colour calibration
60	Applica 20941	0	Report: Applica, EMC and environmental testing of HD 27T22 MEC
59	Applica 20885	0	Report: Applica, EMC and environmental testing of HD 27T22 MEC
58	doc205967-1		Flicker test report HD24T22
57	doc205958-1		minimum brightness test of GDCX rev 5

DNV No	Document ID	Rev.	Description
57	LIC 12-20-002	6 January 2020	Report: LABOTECH: ITU-R M.1177, Model: Transceiver for MARINE RADAR FAR-2228-NXT/2228-NXT-BB/2328-NXT FAR-3220-NXT/3220-NXT-BB/3320-NXT Type: RTR-123
56	doc102352-2	2	IEC62288: Conformance test report 24T22 MMD
56	K03-17-1793	17th July 2013	Report: Furuno, IEC 62388 Ed.2 6.10.2,.3,.4 Model: FAR-2xx7, Type: XN12AF/20AF/24AF,SN36AF, Radar Antenna Pattern Data, testing equivalent for MARK-2 antennas IEC 62388, 6.10.3, 6.10.2, 6.10.4
54	Applica 21009	0	Report: Applica, HD 26T22 MMD: EMC and environmental testing
53	Applica 21008	0	Report: Applica, HD 24T21 MMD: EMC and environmental testing
52	VS-TV-100708-01	2021.07.08	Report: VST, IEC60945 Vibration, HD 24T22 MEC-MP9-4AAH1A-ES3 (representative report for HD 26T22 and HD 55T22 Power Module Change)
51	210426002T	2021.07.15	Report: CAL-TECH IEC60945 HD 24T22 MEC-MP9-4AAH1A-ES3 Technical Report (representative report for HD 26T22 and HD 55T22 Power Module Change)
50	doc205969-1	01	IEC62288 Flicker test report HD26T22 MMD
49	doc205958-1	2	Minimum brightness test of GDCX Rev 5
48	DOC208880-1	Revision 01	Report: Hatteland, IEC62288 Ed. 2.0 Display Test_JH 15T17 FUD-MR1-AOAA
48	doc102352-3		IEC62288: Conformance test report HD 26T22 MMD-MA1-FAGA-ES
47	DOC208044-1	Revision 01	Report: Hatteland, IEC62288 Minimum brightness test of PCA200865-1 keypad
46	2008-3511		IEC60945 technical report: JH 20T17 MMD-AA1-AABA
46	DOC206446-1	Revision 01	Report: Hatteland, IEC62288 flicker test report_HD 15T22 MMD
45	2013-3038		IEC60945 technical report: JH 19T14 MMD-MA1-AAAA
45	CEBDLB-WTW-P21041117	May 04, 2021	Report: BV IEC60945, Radiated and Immunity - Partial IEC 60945 Test Report HD 24T22 (representative report for HD 26T22 and HD 55T22 Power Module Change)
44	INB10036-4	Rev 00_01	Manual: User Manual Series 1 G2 - Maritime Multi Display Models
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42	2008-3324		IEC60945 technical report: JH 15T17 MMD-DA1-AOAA
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41	2011-3494	01	IEC60945 test report: JH 15T17 MMD-AA1-AABA
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38	DOC102116-3		IEC62288: JH 19T14 MMD-MA1-SABA-HW09
37	DOC102116-2		IEC62288: JH 20T17 MMD-AA1-AABA-HW06
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36	K03-17-2549	1.04	DNVGL Type approval testing report
35	DOC208089-1	Rev. 01	Report: IEC 62288 Hatteland: Conformance test report JH 20T17 MMD-MR4-AABA
34	DOC208088-1	Rev. 01	Report: IEC 62288 Hatteland: Flicker test report JH 20T17 MMD-MR4-AABA
33	DOC208070-1	Rev. 01	Report: IEC 62288 Hatteland: Conformance test report JH 23T14 MMD-MR4-AABA
32	DOC208060-1	Rev. 01	Report: IEC 62288 Hatteland: Flicker test report JH 23T14 MMD-MR4-AABA
31	DOC208044-1	Rev. 01	Report: IEC 62288 Hatteland: Minimum brightness test of PCA200865-1 keypad

DNV No	Document ID	Rev.	Description
31	LIC 12-17-023		IEC61162-450 report: FAR-2xx8
30	LIC 12-17-022		IEC61162-1/2 report: FAR-2xx8
29	LIC 12-17-021		CSD IEC60945: FAR-2xx8
29	DOC206405-1	Rev. 02	Report: IEC 62288 Hatteland: Conformance test report HD 19T22 MMD-MA1-FOGP_HTB30-DVI-D
28	LIC 12-17-020		IEC60945 others: FAR-2xx8
28	DOC206081-1	Rev. 03	Report: IEC 62288 Hatteland: Flicker test report_HD 19T22 MMD
27	LIC 12-17-019		Temp. & vibration IEC60945: FAR-2xx8
27	DOC205958-1	Rev. 5	Report: IEC 62288 Hatteland: Minimum brightness test of GDCX
26	LIC 12-17-018		EMC IEC60945: FAR-2xx8
24	LIC 12-21-008	28 January 2021	Report: LABOTECH - Test Report (IEC 61162-450) Trade name: Furuno Model: MARINE RADAR Type: FAR-2218/2218-BB/2318/2228/2228-BB/2328/2228-NXT/2228-NXT-BB/2328-NXT/2328W/2238S/2238S-BB/2338S/2338SW/2238S-NXT/2238S-NXT-BB/2338S-NXT
23	LIC 01-20-047	28 January 2021	Report: Reference document for IEC 61162-450 test performed by LIC
23	Applica 20128	0	Report: Applica, Performance testing of Radar FAR-3000 series
21	RET-17-009		The answer of DNVGL comment about FAR-2xx8 type approval
21	K03-17-3402	1.03	Report: Furuno IEC62923 - MARINE RADAR FAR 2xx8 series FAR 15x8 series
20	K03-17-1538		DNV type approval testing report for pending items: FCR-2xx9 series
19	K03-17-1758		Wind tunnel test report: Radiator & scanner XN12CF/XN20CF/XN24CF and RSB-128
18	K03-17-1759		Wind tunnel test report: Radiator/scanner SN36CF/RSB-129
17	K03-17-1814		Result of TT and Association scenario test marine Radar: FAR-3xx0
16	K03-17-1815		DNV type approval report Marine Radar: FAR-3xx0
15	K03-17-1869		Radar antenna radiation pattern data : FAR-3xxx series
14	K03-17-1888	1	Performance in sea and rain clutter : FAR-3210 with XN-20CF
14	LIC 12-19-151		IEC 60945, ETSI EN 301 843-1, Furuno Marine Radar Type: FAR-2228-NXT/2228-NXT-BB/2328-NXT, FAR-3220-NXT/3220-NXT-BB/3320-NXT
13	K03-17-2892		IEC 62388, Result of TT Marine Radar F A R 2x 2 8 NXT
13	K03-17-1894	1	Performance in sea clutter : FAR-3xx0
12	K03-17-1899	1	Performance in sea and rain clutter : FAR-3xx0
12	LIC 12-19-156		IEC 60945, Furuno Marine Radar Type: FAR-2228-NXT/2228-NXT-BB/2328-NXT, FAR-3220-NXT/3220-NXT-BB/3320-NXT - Electromagnetic RF radiation
11	K03-17-2549		DNVGL type test report marine Radar FAR-2xx8
11	LIC 12-19-155		IEC 60945, Furuno Marine Radar Type: FAR-2228-NXT/2228-NXT-BB/2328-NXT, FAR-3220-NXT/3220-NXT-BB/3320-NXT - CSD
10	K03-17-2567		Result of TT and Association scenario test: FAR-2xx8
10	LIC 12-19-154		IIEC 60945, IEC62388 Furuno Marine Radar Type: FAR-2228-NXT/2228-NXT-BB/2328-NXT, FAR-3220-NXT/3220-NXT-BB/3320-NXT - vibration and shock
9	LIC 12-19-153		IEC 60945, Furuno Marine Radar Type: FAR-2228-NXT/2228-NXT-BB/2328-NXT, FAR-3220-NXT/3220-NXT-BB/3320-NXT - temperature
9	QINETIQ/MS/MAR/CR1303326/V1.2		Unwanted emission measurements of RTR-105/106/107/111 XN-12CF, XN-24CF, SN36CF
8	OSE-36520-C10		Operator's Guide FAR-2xx8 series
8	LIC 12-19-152		IEC 60945, Furuno Marine Radar Type: FAR-2228-NXT/2228-NXT-BB/2328-NXT, FAR-3220-NXT/3220-NXT-BB/3320-NXT - dangerous voltage

DNV No	Document ID	Rev.	Description
5	LIC 12-16-012		IEC62288 ed.2.0: Monitor unit MU-270W
4	K03-17-2885	1.03	DNVGL type approval
3	LIC 12-20-002		Test report (ITU-R M.1177) for transceiver type RTR-123
3	BSH/4543/434257 7/13-1		Marine Radar FAR-2xx7: IEC62388(2013)
2	Applica 30215	0	Report: Applica, Performance testing of X-band NXT antenna and transceiver
2	BSH 6522/1114- 8/2004		FAR-2xx7 radar Series : IEC61162 conformance test
1	K03-17-2929	0	Performance in Sea and Clutter
1	FLI 12-10-039		IEC62288 & IEC62388 test report for MU-190 and MU-231