

SPECIFICATIONS OF MARINE RADAR FAR-1528

1 ANTENNA UNIT

- 1.1 Antenna type Slotted waveguide array
- 1.2 Radiator length 6.5 ft (XN20AF), 8 ft (XN24AF)
- 1.3 Horizontal beamwidth 1.23° (XN20AF), 0.95° (XN24AF)
- 1.4 Vertical beamwidth 20°
- 1.5 Sidelobe attenuation -28 dB (within ±20° of main-lobe)
- 1.6 Polarization Horizontal
- 1.7 Rotation 26 rpm (RSB-120), 48 rpm (RSB-121)

2 RF TRANSCEIVER

- 2.1 Frequency 9410 MHz ±30 MHz, P0N
- 2.2 Output power 25 kW
- 2.3 Minimum range 25 m
- 2.4 Range discrimination 25 m
- 2.5 Range accuracy 1 % of range in use or 10 m whichever is the greater
- 2.6 Bearing accuracy ±1°
- 2.7 Range, Pulselength and Pulse Repetition Rate

PRR (Hz approx.)	Range scale (NM)											
	0.125	0.25	0.5	0.75	1.5	3	6	12	24	48	96	
3000*	S1											
2760*	S2											
1500				M1								
1000				M2								
1000						M3						
600**							L					

*: 2200 Hz approx. with TT range on 32 NM. **: 500 Hz on 96 NM range.

- 2.8 IF frequency 60 MHz

3 PROCESSOR UNIT

- 3.1 Range scales and ring interval

Scale (NM)	0.125	0.25	0.5	0.75	1.5	3	6	12	24	48	96
RI (NM)	0.025	0.05	0.1	0.25	0.25	0.5	1	2	4	8	16
Number of rings	5	5	5	3	6	6	6	6	6	6	6

- 3.2 Warm-up time 3 minutes approx.
- 3.3 Presentation mode Head-up, STAB Head-up, North-up (TM/RM), Course-up, Stern-up
- 3.4 Marks Cursor, Radar ring, Heading mark, North mark, Bearing line, Vector, Map mark, Zoom, VRM, EBL, Acquisition zone
- 3.5 Target tracking (TT) Auto or manual acquisition: 50 targets in 0.2-32 NM
Tracking: 5/10 pts on all target
Time of vector: 30 s to 60 minutes
- 3.6 AIS Display capacity: 300 targets, Tracking: 5/10 pts on all target
Time of vector: 30 s to 60 minutes
- 3.7 Echo trail True/Relative, Trail length: 0 to 30 minutes (30 s steps) or continue
- 3.8 Radar map 5,000 pts
- 3.9 Interswitch function Selected from menu

4 MARINE DISPLAY/ MONITOR UNIT

- 4.1 Screen type 15-inch color LCD, 304 x 228 mm, 1024 x 768 (XGA)
- 4.2 Brightness
 - MU-150HD 1,000 cd/m² typical
 - MU-152 400 cd/m² typical
- 4.3 Contrast
 - MU-150HD 600:1
 - MU-152 900:1
- 4.4 View angle 160° typical
- 4.5 Radar effective diameter 205 mm

5 INTERFACE

- 5.1 Number of ports on processor unit
 - Heading 1 port: AD-10 format or IEC61162-2
 - Serial IEC61162-2: 2 ports (AIS/HDG)
IEC61162-1: 4 ports (GPS/LOG/AMS/ECDIS)
 - Contact closure Alert output: 4 ch, Remote ACK input, System fail, power fail
 - Remote display 2 ports (Signal: HD, BP, Trigger and Video)
 - LAN Ethernet 100Base-TX: 1 port
 - DVI DVI-D: 1 port for main display
 - RGB 1 port for VDR or RGB monitor
- 5.2 Data sentences
 - Input ABK, ACK, ACN, ALR, BWC, BWR, CUR, DBK, DBS, DBT, DPT, DTM, GBS, GGA, GLL, GNS, HBT, HDG, HDM, HDT, MTW, MWV, RMB, RMC, RTE, THS, VBW, VDM, VDO, VDR, VHW, VSD, VTG, VWR, VWT, WPL, ZDA
 - Output ABM, ACK, ALC, ALF, ALR, ARC, BBM, EVE, HBT, OSD, RSD, TLB, TLL, TTD, TTM, VSD

6 POWER SUPPLY

- 6.1 Processor unit
 - AC type 100-115/220-230 VAC: 3.8/1.7 A (26 rpm), 4.3/2.0 A (48 rpm)
 - DC type 24 VDC: 8.3 A max. (26 rpm), 10.0 A max. (48 rpm)
- 6.2 Marine display (Monitor) 12-24 VDC: 4.5-2.2 A
- 6.3 Rectifier (RU-1746B-2/RU-3424, option) 100-115/220-230 VAC, 1 phase, 50/60Hz
- 6.4 Transformer (RU-1803, option) 440 VAC, 1 phase, 50/60Hz

7 ENVIRONMENTAL CONDITIONS

- 7.1 Ambient temperature
 - Antenna unit -25°C to +55°C (storage: +70°C or less)
 - Processor unit -15°C to +55°C
 - Marine display (Monitor) -15°C to +55°C
- 7.2 Relative humidity 93% or less at +40°C
- 7.3 Degree of protection
 - Antenna unit IP56
 - Processor unit IP20 (IP22: option)

	Control unit	IP22
	Marine display (Monitor)	IP56 (panel), IP22 (chassis)
7.4	Vibration	IEC 60945 Ed.4

8 UNIT COLOR

8.1	Antenna unit	N9.5 (fixed)
8.2	Processor/control unit	N2.5 (fixed)
8.3	Marine display	N2.5 (fixed)

9 PERFORMANCE MONITOR (PM-32A)

9.1	Frequency range	9380 to 9440 MHz
9.2	Input power	+18dBm to +30dBm
9.3	Output power	-21 dBm (1 st pulse max. output), -41 dBm (1 st pulse min. output)
9.4	Step level	8 to 12 dB (1 st pulse to last pulse)