SPECIFICATIONS

DISPLAY UNIT	MR-1210RII	MR-1210TII		MR-1210TIII	
		(4 ft model)	(6.5 ft model)	(4 ft model)	(6.5 ft model)
Display type	12.1-inch TFT color LCD				
Resolution	600×800 dots				
Minimum range	25 m (at 1/8 NM range)				
Maximum range	36 NM	48 NM		72 NM	
Range scales (NM)	1/8, 1/4, 1/2, 3/4, 1, 1.5, 2, 3, 4, 6, 8, 12, 16, 24, 32, 36, 48*1, 64*2, 72*2 (*1 MR-1210TII/TIII only *2 MR-1210TIII only)				
Preheat time	90 seconds				
Power supply	10.2–42 V DC				
Power consumption (at zero wind velocity)	60 W (approx.)	70 W (approx.)	80 W (approx.)	80 W (approx.)	90 W (approx.)
Usable Temp. range	−15°C to +55°C				
Input data format	NMEA 0183, N+1, AUX, IEC61162-2				
Output data format	NMEA 0183				

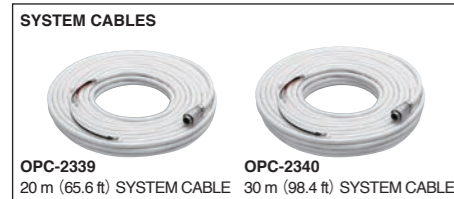| SCANNER UNIT	MR-1210RII	MR-1210TII		MR-1210TIII	
Scanner type	2 ft (60 cm) radome scanner	4 ft (120 cm) open array scanner	6.5 ft (200 cm) open array scanner	4 ft (120 cm) open array scanner	6.5 ft (200 cm) open array scanner
Rotation speed	24, 36 rpm typ.	24, 36 rpm typ.		22, 24, 36 rpm typ.	
Horizontal beamwidth	4° typ.	2° typ.	1.2° typ.	2° typ.	1.2° typ.
Vertical beamwidth	22° typ.	23° typ.	23° typ.	23° typ.	23° typ.
Side lobe	−22 dB typ.	−24 dB typ.	−27 dB typ.	−24 dB typ.	−27 dB typ.
Usable Temp. range	−25°C to +70°C				
Usable humidity range	Less than 95% (at 40°C)				
Frequency	9410 MHz ±30 MHz				
Modulation	P0N				
Peak output power	4 kW	4 kW		6 kW	
Pulse-width/ repetition rate	80 nS/2160 Hz, 80 nS/1440 Hz, 250 nS/1440 Hz, 350 nS/1440 Hz, 900 nS/720 Hz, 900 nS/660 Hz* (* MR-1210TIII only)				
Modulator	FET switching				
Intermediate frequency	60 MHz				
IF bandwidth	10 MHz, 3 MHz				
Tuning	Auto/manual selectable				
Supplied system cable	15 m; 49.2 ft; OPC-2341	20 m; 65.6 ft; OPC-2342			

All stated specifications are subject to change without notice or obligation.

Applicable IP Rating

Ingress Protection Standard			
DISPLAY UNIT	IPX4	SCANNER UNIT	IPX6

OPTIONS

SYSTEM CABLES

OPC-2339
20 m (65.6 ft) SYSTEM CABLE

OPC-2340
30 m (98.4 ft) SYSTEM CABLE

VIDEO OUTPUT UNIT

UX-234
Analog RGB output for external monitor

DIMENSIONS

300
119.2
275 (10.83)
246 (9.69)
ø7 (0.28)
30
74
146.5
293
323
146.5
R10 (0.39)
10 (0.39)
230 (9.06)
240 (9.45)
6 (0.24)
12 (0.47)

4.6 kg

Cutout dimensions

← Ship's bow direction
256
601
45.5 150.5
90.5
90.5
90.5
640

8 kg (without cable)

4 ft model : Φ1217
6.5 ft model : Φ1995
262
190
118
4 ft model : 1192
6.5 ft model : 1979
248
302

← Ship's bow direction
200
395
725.5
184 400

4 ft model : 18 kg (without cable)
6.5 ft model : 20 kg (without cable)

Unit: mm

REAR PANEL VIEW

External display with Optional UX-234

Open array scanner MR-1210TII/TIII

Power supply 10.2 to 42 V DC

Radome scanner MR-1210RII

NMEA1: AIS data input* Bearing data input

GND

NMEA2: NMEA 0183 input/output

*AIS data input: IEC 61162-2 38400bps

Optional Video Output Unit

With an optional video output unit, UX-234, the MR-1210 can be connected to an external display. Same radar echoes can be observed on the main and secondary displays at the same time.

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Credits: This product includes "zlib", "libevent", "libusb" and "freetype" open source software, and is licensed according to the open source software license.

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ICOM

MARINE RADARS

MR-1210RII
12.1-inch Color TFT, 4 kW Radome Scanner

MR-1210TII
12.1-inch Color TFT, 4 kW Open Array Scanner(4 ft/6.5 ft models)

MR-1210TIII
12.1-inch Color TFT, 6 kW Open Array Scanner(4 ft/6.5 ft models)

- **12.1-inch Large Color TFT Display (600×800 dots)**
- **4 kW Radome Radar (MR-1210RII), 4 kW Open Array Scanner (MR-1210TII, 4 ft/6.5 ft models), 6 kW Open Array Scanner (MR-1210TIII, 4 ft/6.5 ft models)**
- **True Trail Function *1**
- **AIS Overlay Function *2**
- **Simplified ATA Function**
- **New User Interface**
- **Optional Video Output Unit**
  (*1 **External NMEA 0183 data and heading sensor required**
  *2 **External AIS data required**)

Color Marine Radar with AIS Overlay Functions

iCOM

MARINE RADAR MR-1210

MR-1210RII (2 ft radome model)	4kW Output 36NM Range
MR-1210TII (4 ft model / 6.5 ft model)	4kW Output 48NM Range
MR-1210TIII (4 ft model / 6.5 ft model)	6kW Output 72NM Range

MARINE RADARS
MR−1210RII·MR−1210TII/TIII

Stabilized Head Up Mode*

When turning your own boat, the radar echo smoothly follows the boat movement without delay.

*External heading sensor（NMEA 0183, N+1 or other formats）required.

## TLL（Target Latitude Longitude）Function*

The MR-1210 can mark points with icons and transfer the position data with NMEA TLL sentences to other NMEA 0183 devices such as an external plotter.

*External NMEA 0183 data and heading sensor required.

True Trail Function*

The true trail function cancels own ship movement and shows true moving objects with trails, while static objects are not trailed. The fine trail function allows you to select trail lines from normal, fine or extra fine trail.

*External NMEA 0183 data and heading sensor required.

Simplified ATA（Automatic Tracking Aid）*

The simplified ATA function allows you to track up to 10 vessels with symbol icons. The CPA（Closest Point of Approach）and TCPA（Time to Closest Point of Approach）limits can be calculated and give an audible warning when any of the target vessels comes within the set range or time.

*External NMEA 0183 data and heading sensor required.
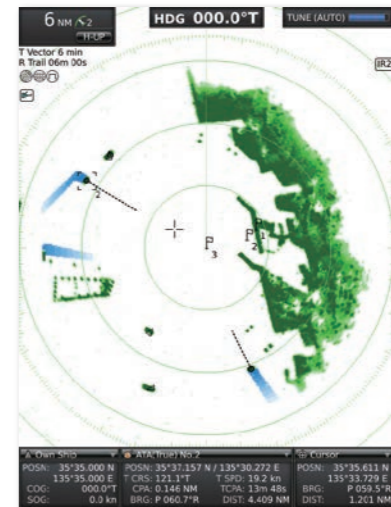

Simplified ATA
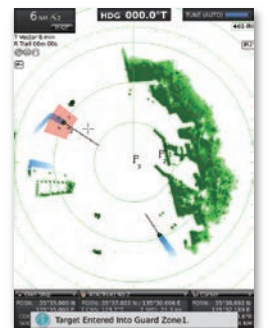
Guard zone alert example

## 12.1-inch Color TFT Display（600×800 dots）

The 600 cd/m² color TFT offers bright, vivid echoes with 32 steps gradient intensity. The display intensity and display color (day, night and user settings) can be instantly adjusted with the "BRILL" button. The full screen mode enlarges radar echoes to full size with transparent menus and operating information.
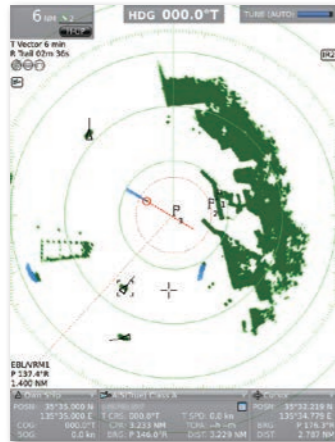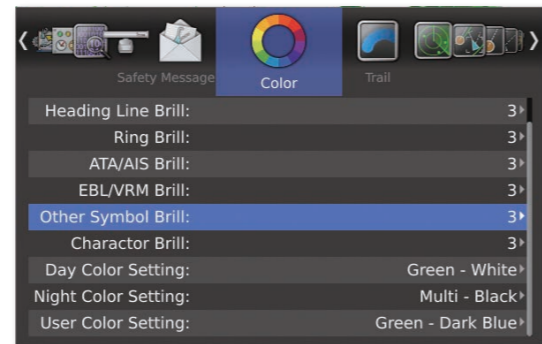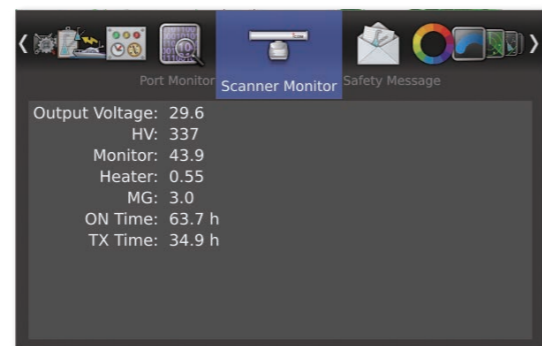

Day setting
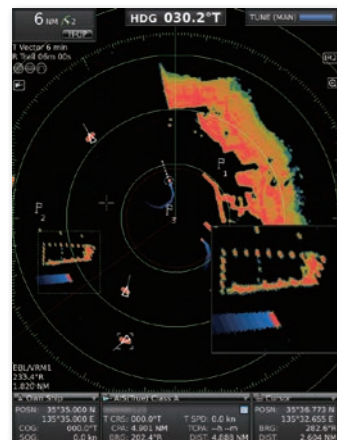
Night setting
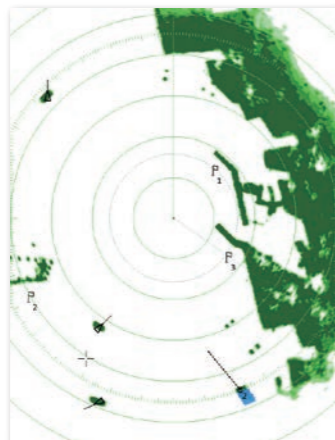
Full screen mode

New User Interface

The MR-1210 provides consistent menu structure and the operator can configure various settings via visually intuitive operation. The language setting is selectable from English, Spanish, Vietnamese, Indonesian, Thai and Korean.

Color	
Heading Line Brill:	3
Ring Brill:	3
ATA/AIS Brill:	3
EBL/VRM Brill:	3
Other Symbol Brill:	3
Charactor Brill:	3
Day Color Setting:	Green - White
Night Color Setting:	Multi - Black
User Color Setting:	Green - Dark Blue

Color setting menu

Scanner Monitor

Output Voltage:	29.6
HV:	337
Monitor:	43.9
Heater:	0.55
MG:	3.0
ON Time:	63.7 h
TX Time:	34.9 h

Scanner monitor menu


AIS（Automatic Identification System）overlay function*

When connected to an external AIS receiver or AIS transponder, the MR-1210 overlays the received AIS information on the radar echo. You can see up to 100 AIS targets and check detailed information of the individual vessel such as speed, course, heading, vessel type and size.
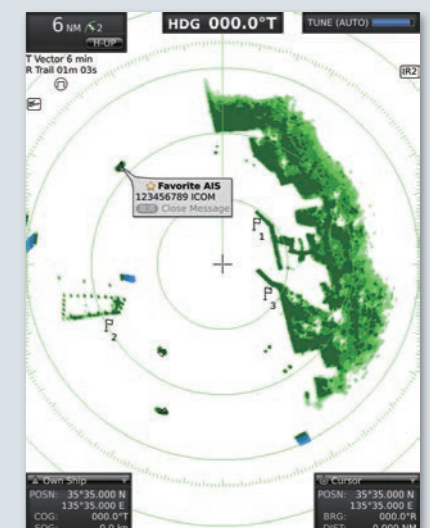

Other vessel AIS information

Own vessel information
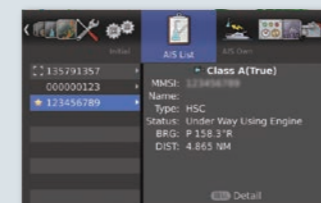
AIS list

Favorite AIS*

The favorite AIS function notifies you when a "friend boat" comes into a preset range. You can easily follow the movement of the boat position on the radar display. Up to three "friends boats" are programmable.

*External AIS data required.

Favorite AIS