

SPECIFICATIONS

GENERAL		
Frequency range	TX	156.025–157.425 MHz
	RX	156.050–163.275 MHz
	DSC	156.525 MHz
	AIS1, 2**	161.975, 162.025 MHz
Usable channels	USA, CAN, INT, WX channels	
Type of emission	16K0G3E (FM), 16K0G2B (DSC) 16K0GXW (AIS)**	
Power supply requirement	13.8 V DC (11.7–15.9 V DC)	
Current drain	TX 25 W output	5.0 A
	RX Max. audio	3.3 A
Operating temperature range	–20°C to +60°C; –4°F to +140°F	
Antenna impedance	50 Ω	
Weight (approximate)	730 g; 1.6 lb (Not including microphone)	
TRANSMITTER		
Output power (at 13.8 V DC)	25 W, 1 W	
Max. frequency deviation	±5 kHz	
Frequency tolerance	±0.5 kHz	
Spurious emissions	Less than –70 dBc (at 25 W)	
Residual modulation	More than 40 dB	
Adjacent channel power	More than 70 dB	
RECEIVER		
Sensitivity (at 12 dB SINAD)	0.32 μV typical	
	DSC (1% BER)	0.89 μV emf typical
Adjacent channel selectivity	More than 75 dB	
	DSC (1% BER)	More than 73 dB emf
Spurious response	More than 75 dB	
	DSC (1% BER)	More than 73 dB emf
Intermodulation	More than 75 dB	
	DSC (1% BER)	More than 68 dB emf
Hum and noise	More than 40 dB	
Audio output power (at 10% distortion)	More than 15 W with a 4 Ω external speaker	
Wireless LAN		
Wireless LAN standard	IEEE802.11 b/g/n	
Authentication and Encryption	WEP (64/128 bit), WPA-PSK (TKIP), WPA2-PSK (AES)	
Channels	1 to 13 (2.4 GHz band)**	
Output power	Less than 10 mW/MHz	

** Only for the Integrated AIS version. ** May differ depending on the country of use. Measurements made in accordance with TIA/EIA 603. All stated specifications are subject to change without notice or obligation.

Applicable U.S. Military Specifications

Standard	Method	MIL 810 G	Procedure
Low Pressure	500.5		I, II
High Temperature	501.5		I, II
Low Temperature	502.5		I, II
Temperature Shock	503.5		I-C
Solar Radiation	505.5		I
Rain	506.5		I
Humidity	507.5		II
Salt Fog	509.5		–
Dust Blowing	510.5		I
Immersion	512.5		I
Vibration	514.6		I
Shock	516.6		I, IV

Also meets equivalent MIL-STD-810-C, -D, -E and -F.

Applicable IP Rating

Ingress Protection Standard	
Dust & Water	IP68 Dust-tight and waterproof protection

Supplied accessories:	
• Speaker microphone, HM-205RB	• Microphone hanger
• DC power cable	• Mounting bracket kit

OPTIONS

Some options may not be available in some countries. Please ask your dealer for details.

<p>COMMANDMIC™</p> <p>HM-195GB (Black) HM-195GW (White)</p> <p>Supplied accessories</p> <ul style="list-style-type: none"> • OPC-1540. 6.1 m (20 ft) cable • Microphone hanger • Mounting base for connector * Amber backlit COMMANDMIC, HM-195B/SW are also available. 	<p>SPEAKER-MICROPHONE</p> <p>HM-205RB Same as supplied.</p>	<p>EXTENSION CABLES</p> <p>OPC-1541 (6.1 m, 20 ft) For HM-195GB/GW OPC-1000 (6.1 m, 20 ft) For HM-205RB</p>	
<p>WIRELESS INTERFACE BOX</p> <p>CT-M500 For NMEA 2000™ interface and Hailer/PA function. To connect to the IC-M510 via WLAN.</p>	<p>HORN SPEAKER</p> <p>SP-37 Power rating: 30 W, Impedance: 4 Ω</p>	<p>VOICE SCRAMBLER UNIT</p> <p>UT-112A Total of 32 voice scramble codes available.</p>	<p>FLUSH MOUNT KIT</p> <p>MBF-7</p>
<p>FRONT PANEL COVER</p> <p>MBZ-1 Attach to protect from sunlight.</p>	<p>CLASS B AIS TRANSPONDER</p> <p>MA-510TR For transmitting own vessel AIS information.</p>	<p>REMOTE CONTROL SOFTWARE</p> <p>RS-M500* iOS™/Android™ application for remote operation of the IC-M510.</p>	
<p>GNSS ANTENNA</p> <p>UX-241</p>			

* Free download Android™/iOS™ app. Download on Google Play™/the App Store.

<p>REAR PANEL VIEW</p> <p>A Ground terminal B Antenna C COMMANDMIC™ D Microphone E GNSS antenna F NMEA 0183/HS G External speaker H DC power</p>	<p>DIMENSIONS</p> <p>unit: mm (inch)</p>
<p>CT-M500 REAR PANEL VIEW</p> <p>AF out DC power</p> <p>Ground terminal NMEA 2000™</p>	

IC-M510 Configuration Variations	
	AIS Receiver
IC-M510 AIS	Integrated
IC-M510	Not included

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Class-D DSC VHF Marine Radio with WLAN Function

Radio Control & Intercom via Your Smart Device

Use the RS-M500 app (for iOS™/Android™) to remotely control the IC-M510 through WLAN. Up to three smart devices can be used as a wireless microphone or remote controller in substitute for the COMMANDMIC™. Intercom function between your smart device and the radio is also available.



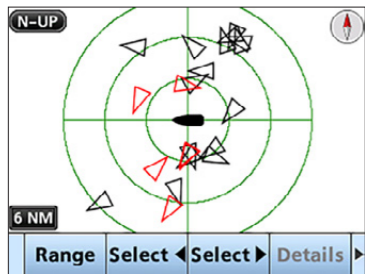
Smart device (RS-M500)



IC-M510



Integrated AIS Receiver*

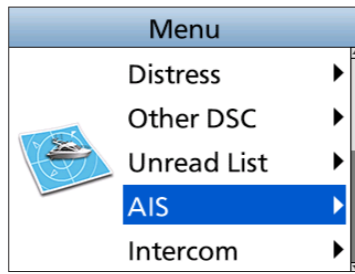


AIS plotter screen

With its integrated AIS receiver* or external NMEA sentence (third party AIS receiver, transponder), the IC-M510 can show real-time AIS vessel traffic information on the display. You can directly make an individual DSC call to selected AIS targets from the AIS screen.

* AIS receiver is not included depending on the transceiver version.

Wide Viewing Angle Color TFT LCD



Menu screen

The color TFT LCD provides nearly a 180-degree viewing angle. The wide display has high-resolution characters and function icons. The night mode screen ensures good readability in low light conditions.

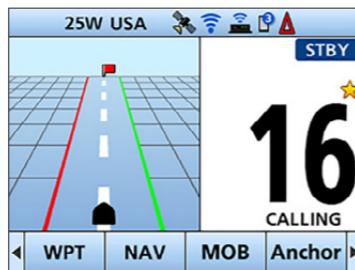
New Sleek Design



Panel mount example

The IC-M510 is slim (depth: 53.6 mm; 2.1 in) and easy to install in your boat. It's all-new sleek design is suitable for either panel or trun-ion mounting.

Simplified Navigation Function



Navigation screen

The Navigation function guides you to a specified waypoint or AIS target. You can assign up to 100 destinations as waypoints.



VHF MARINE TRANSCEIVER **IC-M510**

Night Mode

Optional COMMANDMIC™ **HM-195GB**

Provides Clear, Loud Audio

The IC-M510's internal speaker enhances the received audio. The waterproof speaker provides superior sound quality with a wide frequency range for powerful, clear audio.

Interface BOX for NMEA 2000™ and Hailer



CT-M500

The optional CT-M500 wireless interface box provides NMEA 2000™ connectivity and Two-way Hailer/PA function. The CT-M500 and the radio can be connected through WLAN. This separate interface box option allows for flexibility in positioning the unit closer to the NMEA network connection point.

And More

- Active Noise Canceling
- NMEA 0183/HS connectivity
- Integrated GNSS receiver (Selectable from either internal receiver or use UX-241 GNSS antenna)
- IP68 advanced waterproofing (1 m depth of water for 60 minutes)
- Automatic Foghorn function (CT-M500 required)
- Voice Scrambler with optional UT-112A
- AquaQuake™ prevents audio degradation from a water-logged speaker
- Supplied speaker-microphone, HM-205RB can be connected to the rear panel
- External speaker connection
- Controlled with COMMANDMIC™ HM-195GB/GW
- Supports 4-digit channels