

MXA-5000

Advanced Collision Avoidance with Real-time Vessel Traffic Information



Dual Channel Receive Capability

The MXA-5000 receives both Ch. 87B (161.975MHz) and Ch. 88B (162.025MHz) simultaneously. This dual channel receive makes the MXA-5000 more flexible for obtaining AIS information from AIS transponders that operate on only one channel. In addition, the MXA-5000 also receives both Class A and Class B AIS data.

Dual Mode Data Output

The MXA-5000 has two data output. One is RS-422 for connection with equipment such as marine radar or GPS chartplotter. Those equipments which accept the VDM sentence format will show the AIS data on the display.

The second is RS-232C for PC connection. When using with AIS plotter software*, the MXA-5000 allows you to monitor other vessel traffic on your PC.

* Not supplied from Icom.

Built-in Antenna Splitter to Share One Antenna

The MXA-5000 can be installed between a VHF antenna and a VHF radio. While receiving a VHF radio signal*, the MXA-5000 receives AIS data. When you transmit from the connected VHF radio, the Tx signal bypasses the MXA-5000 to protect the internal circuit. * Insertion loss : 3.5dB (approx.)

GPS Data Multiplex

When connected a GPS receiver to the MXA-5000, GPS position information such as RMC, GGA, GNS and GLL formats can be multiplexed with AIS data (VDM format) and simplifies wiring.

Compact Size and Light Weight Body

The MXA-5000 is only 132(W)×34(H)×155(D)* mm and weighs only 400g* for easy and flexible installation.

* Mounting bracket is not included in the dimensions and weight.

What is AIS?

Icom's MXA-5000 AIS (Automatic Identification System) receiver will pick up real-time transmissions from vessels that use an AIS transponder. Such transponders are now required for SOLAS vessels by SOLAS regulations.

The AIS transponder sends accurate navigation information such as:

- Static Information — Vessel call sign, name, MMSI number, dimensions, type

- Voyage-Related Information — Draft, cargo type, destination and estimated time of arrival
- Dynamic Information — Time in universal time, coordinated, latitude/longitude position, course over ground, speed over ground, heading, rate of turn, navigational status.

For more details, please refer to

"<http://www.navcen.uscg.gov/enav/AIS/default.htm>"

SPECIFICATIONS

GENERAL

- Frequency coverage : 161.975MHz (Ch 87B) and 162.025MHz (Ch 88B)
Simultaneous receive
- Receive emission : 16K0F1D (GMSK)
- Antenna impedance : 50Ω
- Usable temperature range: -20°C to +60°C
; -4°F to +140°F
- Power supply requirement: 12.0V DC (10.8~15.6V)
- Current drain (12.0V DC) : 0.25A
- Weight (approx.): 400g; 14.1oz
Mounting brackets attached 460g; 1.0lb

RECEIVER

- Sensitivity : -116dBm typ.
- Adjacent Ch selectivity : More than 70dB
- Spurious response : More than 70dB
- Intermodulation : More than 65dB
- Hum and noise ratio : More than 40dB
- Conducted spurious emission : Less than -57dBm

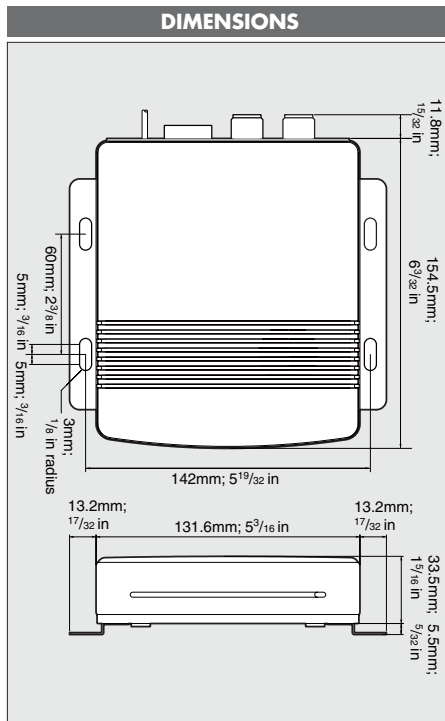
DATA INTERFACE

- Data Input Interface : IEC 61162-1:2000 (4,800bps)
Sentence format RMC, GGA, GNS, GLL
Input level Less than 2mA
(When 2V applied)
- Data Output Interface : IEC 61162-2 (38,400bps)
To navigation equipment RS-422 balanced
Sentence format VDM
Output level 5V, 40mA Max.
To PC RS-232C unbalanced
Sentence format VDM
Output level ±5V, ±35mA typ.

Measurements made in accordance with IEC 62287-1.

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

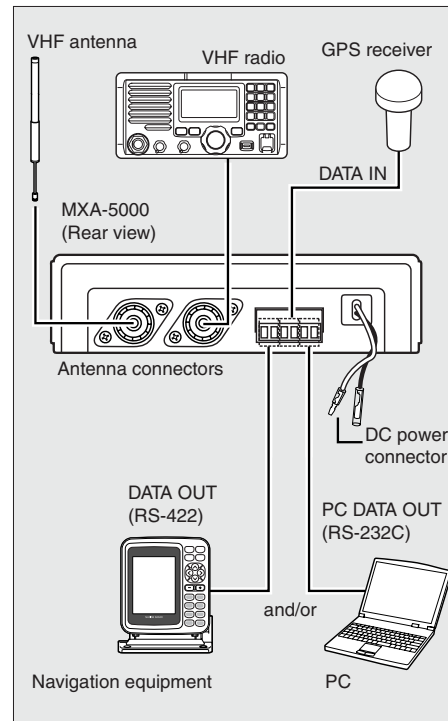
DIMENSIONS



Supplied accessories:

- Mounting bracket kits
- DC power cable

CONNECTION DIAGRAM



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