

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 chart-plotter. 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"](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)
designator
- 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

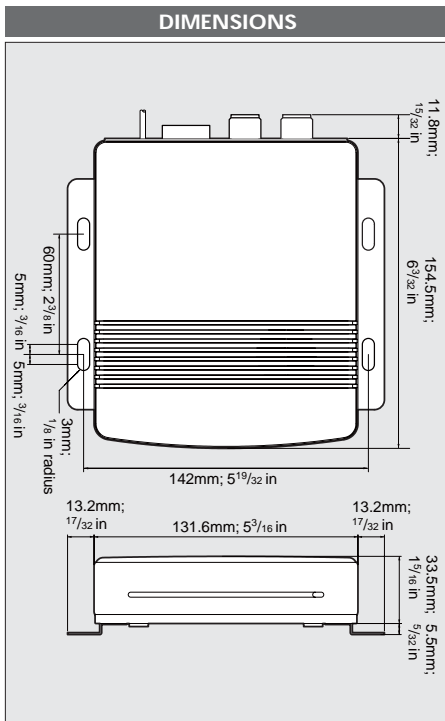
DATA INTERFACE

- 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.

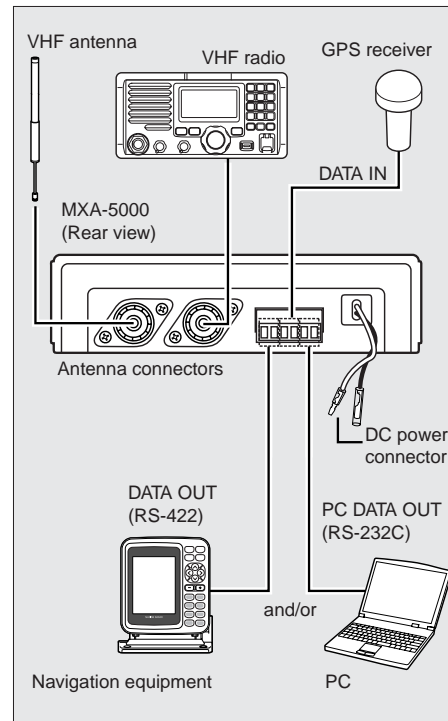
DIMENSIONS



Supplied accessories:

- Mounting bracket kits
- DC power cable

CONNECTION DIAGRAM



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