

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 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)
- 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

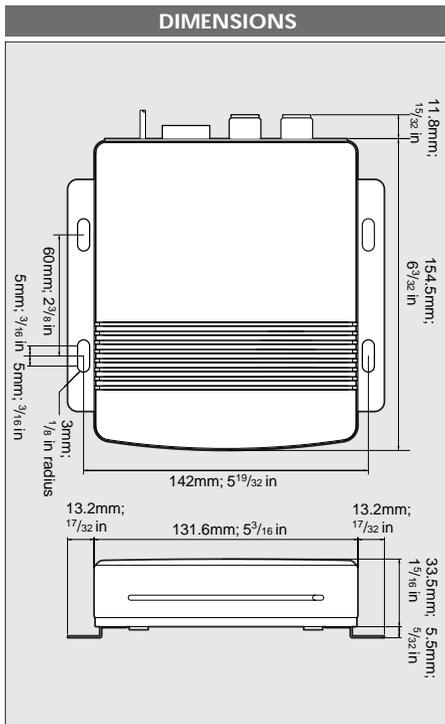
DATA INTERFACE

- 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
Sentence format VDM
Output level 5V, 40mA Max.
- To PC
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.

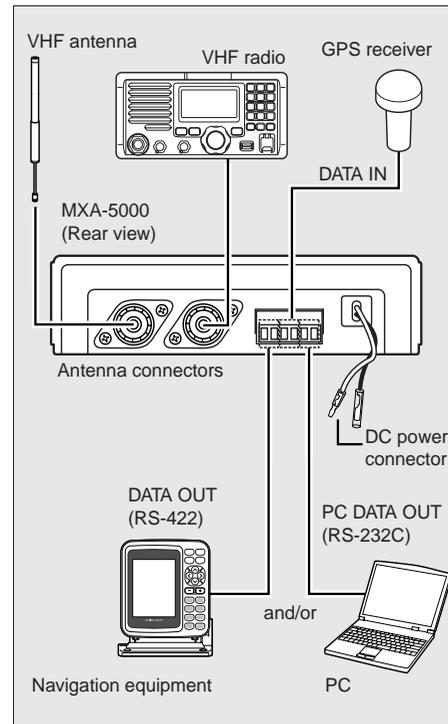
DIMENSIONS



Supplied accessories:

- Mounting bracket kits
- DC power cable

CONNECTION DIAGRAM



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Icom Inc.

1-1-32, Kami-minami, Hirano-ku, Osaka 547-0003, Japan Phone: +81 (06) 6793 5302 Fax: +81 (06) 6793 0013 URL: <http://www.icom.co.jp/world/index.html>

Count on us!

Icom America Inc.

2380 116th Avenue NE,
Bellevue, WA 98004, U.S.A.
Phone : +1 (425) 454-8155
Fax : +1 (425) 454-1509
E-mail : sales@icomamerica.com
URL : <http://www.icomamerica.com>

Icom New Zealand

146A Harris Road, East Tamaki,
Auckland, New Zealand
Phone : +64 (09) 274 4062
Fax : +64 (09) 274 4708
E-mail : inquiries@icom.co.nz
URL : <http://www.icom.co.nz>

Icom (UK) Ltd.

Unit 9, Sea St., Herne Bay,
Kent, CT6 8LD, U.K.
Phone : +44 (01227) 741741
Fax : +44 (01227) 741742
E-mail : info@icomuk.co.uk
URL : <http://www.icomuk.co.uk>

Asia Icom Inc.

6F No. 68, Sec. 1 Cheng-Teh Road,
Taipei, Taiwan, R.O.C.
Phone : +886 (02) 2559 1899
Fax : +886 (02) 2559 1874
E-mail : sales@asia-icom.com
URL : <http://www.asia-icom.com>

Your local distributor/dealer:

Icom Canada

Glenwood Centre #150-6165 Highway 17,
Delta, B.C., V4K 5B8, Canada
Phone : +1 (604) 952-4266
Fax : +1 (604) 952-0090
E-mail : info@icomcanada.com
URL : <http://www.icomcanada.com>

Icom (Europe) GmbH

Communication Equipment
Himmelgeister Str. 100,
D-40225 Düsseldorf, Germany
Phone : +49 (0211) 346047
Fax : +49 (0211) 333639
E-mail : info@icom-europe.com
URL : <http://www.icomeurope.com>

Icom France s.a.s.

Zac de la Plaine,
1 Rue Brindejonc des Moulinais, BP 45804,
31505 Toulouse Cedex 5, France
Phone : +33 (5) 61 36 03 03
Fax : +33 (5) 61 36 03 00
E-mail : icom@icom-france.com
URL : <http://www.icom-france.com>

Icom (Australia) Pty. Ltd.

Unit 1 / 103 Garden Road,
Clayton, VIC 3168 Australia
Phone : +61 (03) 9549 7500
Fax : +61 (03) 9549 7505
E-mail : sales@icom.net.au
URL : <http://www.icom.net.au>

Icom Spain S.L.

Ctra. Rubí, No. 88 "Edificio Can Castanyer"
Bajos A 08174, Sant Cugat del Valles,
Barcelona, Spain
Phone : +34 (93) 590 26 70
Fax : +34 (93) 589 04 46
E-mail : icom@icomspain.com
URL : <http://www.icomspain.com>

Icom Polska

81-850 Sopot, ul. 3 Maja 54, Poland
Phone : +48 (58) 550 7135
Fax : +48 (58) 551 0484
E-mail : icompolksa@icompolksa.com.pl
URL : <http://www.icompolksa.com.pl>

