

AIS MX535A

MX535A / MX512 AIS System: Type Approved AIS Transponder System, meets the latest IMO requirement ITU-RU.1371-3 standard.

MX Marine has developed a complete solution to D/GPS and AIS System. With only one combined Control and Display unit, you can access all related information and still command full control of all D/GPS, AIS, and optional D/GPS Compass functions. The system connects directly to the ship's navigation sensors as well as ECDIS, ARPA radar and other shipboard information systems.

Adding AIS to navigation for spontaneous 'ship to ship' or 'ship to shore' recognition greatly enhances safety at sea and provides mariners with new levels of real-time information. Designed with the deep sea commercial mariner in mind, we have created multiple configurations to suit the size and complexity of any vessel.

The MX535A transponder, is a fully IMO-compliant STDMA unit remotely controlled by MX512 Control and Display unit. Transponder system set-ups and controls is configured in the MX512. It can also gather the ship's sensor data and organizes the information for transmission via AIS. The ship's ECDIS, ARPA and Pilot's PC all have access to both the D/GPS and the AIS information via the high-speed serial ports of the MX535/ MX512.

Password protected menus allow you to safely and simply enter all Static and Voyage related AIS information. AIS Situation Displays give you immediate and continuous graphic and/or text information about AIS-equipped ships and shore stations as they come into radio range.

PRO **MX535A KEY FEATURES**

- ▶ Complies with the latest IMO standard ITU-RM.1371-3
- ▶ Identify other AIS enabled ships by its' correlated UAIS identification
- ▶ Contact other ships using the Call Signs presented by the AIS Screen
- ▶ Receive an instant overview of traffic situations and the maneuvers of other ship
- ▶ Able to get detailed information on AIS enabled ships in radar blind zones
- ▶ Supplied Junction Box allows easy interconnection between MX535A, MX512 Display and other interfaces
- ▶ Built-in GPS is RAIM enabled



▶ **MX535A**

Part Number	Description
000-10037-001	MX535A
512-100-1001	MX512 junction box
512-000-0000	MX512 CDU



▶ **MX512 AIS/MKD and Navigation Control Display**



▶ **MX512 Junction Box**

▶ MX535A SPECIFICATIONS

VHF

Frequency Range	156 MHz - 162 MHz
Channel Spacing	12.5 or 25 kHz
Number of RF channels	3 Recieve / 1 Transmit
Number of AIS Channels	2 Recieve
Number of DSC Channels	1 Recieve

VHF TRANSMITTER

Output Power	2 Watt (low) or 12.5 Watt (high)
Rx to Tx Switching Time	< 1 ms
Transmit Release Time	< 1 ms
Automatic Shutdown	1 sec.
Channel Switching Time	< 25 ms
Attack Time	< 1 ms

VHF RECEIVER

Max. Usable Sensitivity	< -110 dBm
Co-Chan Rejection	> -3 dB (25 kHz) > -12 dBm (12.5 kHz)
Adjacent Channel Selectivity	> 70 dB (25 kHz) > 60 dB (12.5 kHz)
Inter-modulation Rejection	> 65 dB
Spurious Response Rejection:	> 70 dB
Blocking	> 84 dB

VHF MODEM

Bit Rate GMSK	9600 bps
RF Baud Rate (DSC)	1200 bps
Modulation	GMSK/fFSK

BUILT-IN GPS

Receiver Type	12 Channel, (L1)
Tracking Capability	12 Satellites (sim.)
Accuracy (Horizontal)	< 10 m / 2 drms
Accuracy (Vertical)	< 15 m / 2 drms
DGPS Accuracy	< 5 m / 2 dms*

POWER SUPPLY

Supply Voltage	24 VDC (+/- 10%) (galvanic isolated)
Input Current	min. 7 Amp. (24V)

INTERFACES

Number of Data Ports	3 input / 4 I-O/1 Out
IEC 61162-1/2	(RS422 / NMEA 0183)
ITU-R M.823-2	(RS422 / RTCM SC104)

BIT RATES

CH1, 2 & 3	4800 bps/38400 bps
CH4 (ECDIS)	38400 bps
CH5 (Pilot Port)	38400 bps
CH8 (Long Range)	38400 bps
CH9 (diff. correction)	9600 bps
CH10 (Alarm circuit)	Dry relay contact

OPTIMAL INTERFACES

Number of data ports RS232	up to 5
Bit Rate	up to 115 000 bps
Simplex/Duplex	Duplex
Number of Data Ports IEC	1 x 61162-3 CAN (RS485)
Bit Rate	Up to 1 Mbps

PHYSICAL

Size	(h): 201.26 mm/7.92" (d): 60 mm/2.36" (w): 281.26 mm/10.07"
Operating Temp	-15°C to 55°C (5°F to 131°F)
Connectors	50 Pin D-Sub (Male) N-Type (Female) VHF TNC (Female) GPS

SPECIFIED STANDARDS

MO MSC.74(69) Annex 3
ITU-R M.1371-3
IALA Tech. Clar. of ITU-R M.1371-1 (Ed. 1.3)
IEC 61993-2 (2002)
IEC 61162-1 (2000) - NMEA 0183-3
IEC 61162-2 (1998) - NMEA 0183-3
IEC 61162-3 ----- NMEA 0183 (2000)
ITU-R M.825-3
IEC 61106-1 (1996)
IEC 60 945 (1996)
ITU-R M.1084-3
For MX420, see separate specifications

▼ MX535A

