SIMRAD

Simrad V5035 Class-A AIS/Inland AIS System

The Simrad V5035 is an IMO Type approved Class-A AIS transponder system. It is a full featured Class-A AIS with everything needed for compliance at an excellent value. V5035 AIS is also type approved for Inland AIS applications.

▲ **V5035**

Configuration Options

The V5035 is a standalone AIS system that includes the V5035 transponder with integrated display, junction box, GPS antenna and pilot port connector assembly. The V5035 easily integrates with the SIMRAD MX610/MX612/GN70 navigation system and NSO, NSS, E5000, Maris ECDIS systems via the NMEA 2000 network. The junction box allows for easy connection to external GPS system, ECDIS, RADAR and VDR.

Safety and Awareness

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. AIS systems allow you to receive an instant overview of traffic situations and the maneuvers of other ships, make contact with other ships easily by using the Call Signs presented by the AIS screen, and you can also get detailed information on AIS enabled ships in radar blind zones.
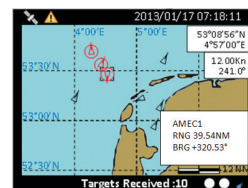

▲ Coastal View

Main Features

- IMO Compliant Class-A AIS/Inland AIS system
- Supplied as a standalone system with junction-box, GPS antenna and Pilot Plug
- Easily integrates with Simrad GPS and Charting systems via NMEA2000 interface.
- Perfect complement to Simrad IMO GPS/GNSS systems (GN70, MX610, MX612)
- Multiple sensors input ports and bi-directional data ports
- Control knob and keypad for easy operation
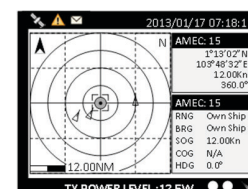- Color 3.5" LCD display

▲ Radar View

▲ MX610/MX612/GN70

Technical specifications overleaf.

Technical Specifications

▶ VHF TRANSCEIVER

Frequency Range:	156.025 MHz ~ 162.025 MHz
Channel Bandwidth	25 KHz
Modulation:	GMSK / FM
Data Rate:	9,600 bps
Number of AIS Transmitter:	1
Number of AIS Receiver:	2
Number of DSC Receiver:	1 view
AIS Channel 1:	CH 87B (161.975 MHz)
AIS Channel 2:	CH 88B (162.025 MHz)
Tx Power Output:	1/12.5 Watt (30/41 dBm $\pm$ 1.5 dB)
Rx Sensitivity:	<-107 dBm @ 20% PER

▶ DSC RECEIVER

Frequency:	156.525 MHz
Modulation:	FSK
Channel Bandwidth:	25K
Sensitivity:	<-107 dBm @ BER <10^{-2}
Spurious Response Rejection:	$\geq$ 70 dB for signal @ -104 dBm; BER $\leq$1%
Blocking:	$\geq$84 dB for signal @ -104 dBm; BER $\leq$1%

▶ GPS RECEIVER (INTERNAL)

Receiving Channels:	50 channel GPS L1 C/A Code
Tracking & Navigation Sensitivity:	$\geq$-159 dBm <+/-1.0 kHz under extreme conditions (e.c)
Reacquisition Sensitivity:	$\geq$-159 dBm
Horizontal Position:	<2.5 m Autonomous <2.0 m SBAS
Receiver type:	SBAS: WAAS, EGNOS, MSAS, GAGAN

▶ POWER SUPPLY

Supply Voltage:	12 / 24 VDC
Power Consumption:	Less than 9W average @ 12 VDC Less than 65 W peak power @ 12 VDC

▶ LCD DISPLAY

Screen Size:	3.5" Color TFT
Pixel Number (Resolution):	320 x 240
Viewing Mode:	Basic coastline map/ Radar View/ Alphanumeric Views/ Satellite View
Dimmer Control:	Step-less Setting

▶ KEYPAD & KNOBS

6 keypad with Back-light	1 for SRM, 1 for MENU, 1 for Dimmer, 1 for ESC, 1 for Display, 1 for Nav. Status
Rotary Switch	Multi-Function

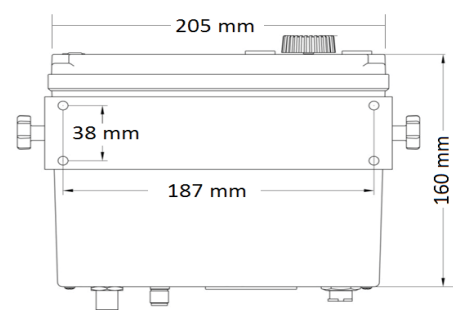### ▶ CONNECTION INTERFACE

GPS Antenna Connector	TNC (Female)
VHF Antenna Connector:	SO-239 (Female)
Sensor Interfaces 1, 2, 3:	IEC 61162-1 or -2
Pilot Port / Auxiliary	IEC 61162-2
External Display	IEC 61162-2
Long-Range	IEC 61162-2
DGNSS Correction input	RTCM SC-104
Alarm relay	Normally Closed
USB	Mini type-B USB interface
NMEA 2000	IEC 61162-3
Alarm Output:	Relay contact

▶ ENVIRONMENTAL

Operating Conditions	IEC 60945 "protected" category
Operating Temperature:	-15° C~ +55°C
Operating Humidity:	95% RH at 40 °C
Waterproof	IPX2

▶ PHYSICAL

Width:	205 mm (8.070 inch)
Height:	85 mm (3.34 inch)
Depth (excluding connector)	160 mm (6.30 inch)
Weight	$\leq$1.16 Kg. (2.56 lb.)

▶ PILOT PLUG

Cable length:	2 meter
Connector Type:	Std. Sex 206486-2

▶ APPLICABLE STANDARDS

IMO Resolution A694(17)	IEC61993-2 ED. 2.0, 2012
IMO Resolution MSC. 74(69) Annex 3	IEC61108-1 ED. 2.0, 2003
IMO Resolution MSC. 191(79)	IEC60945 ED. 4.0, 2002 incl. Corr. 1, 2008
ITU-R M 1371-4 (Class A), 2010	IEC61162-1 ED. 4.0, 2010
ITU-R M 825-3, 1998	IEC61162-2 ED. 1.0, 1998
ITU-R M 1084-5, 2012	IEC62288 ED. 2.0, 2014
CCNR Inland AIS test standard, edition 2.0	
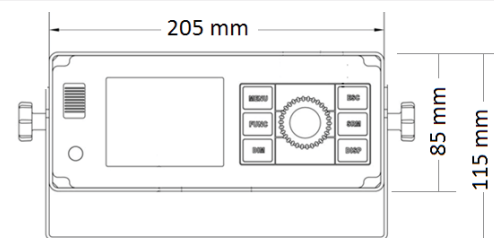
▲ V5035 Front View

▲ V5035 Bottom View

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