

AI3000 Automatic Identification System

Low-cost AIS receiver

AI3000 is a low-cost AIS receiver that enables the identification of vessels and nav aids fitted with AIS transponders.

Designed for both on-board and land-based vessel monitoring applications, AI3000 provides the ability to receive and decode the position, details and intentions of vessels fitted with AIS to improve safety at sea and assist collision avoidance.

These 'targets' can then be displayed visually on a compatible PC electronic charting system (such as seaPro) or other device (e.g. plotter) to give 'at-a-glance' situation awareness.



AIS was conceived to fulfil a need for vessels to know the position, details and navigational intentions of other vessels within the local vicinity for improved safety and collision avoidance.

The carriage requirement is for vessels which comply with International Convention for Safety of Life at Sea (SOLAS) - that is passenger ships and cargo ships over 300 gross tonnage, to fit AIS transponders by the end of 2004. The transponders send details of their own vessel and receive details from other vessels utilising VHF frequencies. Information transmitted includes vessel position, name, call sign, type of vessel, speed, gyro heading, course over the ground and destination.

The information broadcast from these vessels is automatically received and decoded by the AI3000 receiver and their positions can be plotted graphically on compatible electronic charting software or other devices.

Whereas radar indicates the position of a target and the derived speed and heading, AIS shows full details of a vessel, including its name, call sign, current speed and heading, so it is possible to plan collision avoidance early or call the vessel on the VHF radio to ascertain their intentions.

Key Features

- Low-cost anti-collision / monitoring system
- Receives target positions and other data from AIS equipped vessels within VHF range
- Outputs standard NMEA data
- Easy to install
- Compatible with seaPro commercial and leisure range of software with full charting and navigation features for on-board and land based applications

Key Uses

- Fishing vessels
- Port Authorities
- Work boats
- Recreational craft
- Military
- Search & Rescue
- Coast Guard
- Land based vessel monitoring applications

AIS Received Information

Information transmitted from Class A transponders and received by AI3000 includes;

- | | |
|-------------------|-----------------------|
| * Vessel position | * Heading |
| * Vessel name | * Draft |
| * Call sign | * Navigational status |
| * Type of vessel | * Rate of turn |
| * Speed (SOG) | * Vessel dimensions |
| * Course (COG) | * MMSI number |
| * Destination | * IMO number |
| * ETA | |

Note: Information is transmitted (and therefore received) at different rates depending on the nature of the information and the speed of the vessel. Dynamic information such as position, speed etc. is transmitted more frequently than static information, such as vessel name and call sign.

AI3000 pack includes

- * AI3000 AIS receiver with mounting bracket
- * Data cable to connect to PC
- * Data cable to connect to NMEA devices

Note: A standard VHF antenna and cable are not supplied but are required for normal operation.

Technical Description

AI3000 is a compact dual channel synthesised VHF receiver designed to receive and decode transmissions from vessels fitted with Class A AIS transceivers.

Electrical

Power supply range : 9 - 30 Volts DC
Power consumption : 400mW

Output

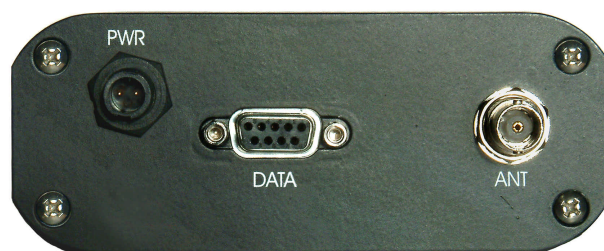
Baud rate : 38.4 KBaud
Format : NMEA 0183
Output message : VDM

Receiver

Frequency : AIS 161.975 MHz
AIS 162.025 MHz
Channel spacing : 25KHz
Sensitivity : -112dBm
Demodulation : GMSK
Data Rate : 9600
Antenna Impedance : 50 ohms

Physical

Dimensions : Length: 140mm, Width: 120mm,
Height: 50mm
Weight : 600g
Mounting : Trunnion bracket
Connectors : Antenna BNC
Output port: 9 pin D socket
Power: 2 pole plug



AI3000 AIS receiver rear view showing connectors.

For further information on other Euronav electronic charting and navigation products, please contact us or your nearest Euronav dealer.

Authorised Dealer

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