

RECEIVERS

R450-DG NETWORK AIS RECEIVER WITH ETHERNET, WiFi & GNSS

SKU: 001-2514

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FEATURES

- **Professional-grade, dual-channel parallel AIS receiver with integrated GNSS receiver**
- **Decodes all AIS message types: Class A, Class B, Aids to Navigation, SARTs, and more**
- **Ethernet port for direct connection to PCs, servers, or local networks**
- **Built-in Wi-Fi for wireless monitoring and streaming to multiple devices**
- **Supports AP, Station, and AP+STA Wi-Fi modes with TCP/UDP data output**
- **Rugged ABS housing with carbon-reinforced connector slides**
- **Built-in USB port for local monitoring and configuration**
- **Ideal for feeding AIS and GNSS tracking data to websites or monitoring servers**
- **Supplied complete with software**

The R450 series is offered in a number of variants to suit different requirements:

D Series use a Digi® network module, offering support for up to 32 simultaneous UDP connections.

X Series use a Lantronix® XPort® module, supporting up to 4 TCP and 1 UDP client/server connections.

E Suffix models are Ethernet-only variants and do not include a Wi-Fi module.

G Suffix models include an integrated GNSS receiver.

OVERVIEW

The R450-DG is a professional-grade AIS receiver with an integrated GNSS receiver, designed for shoreside monitoring of vessel traffic within VHF range. It decodes all AIS message types, including Class A, Class B, Aids to Navigation, and SARTs, while also providing accurate GNSS positioning data alongside the AIS feed.

With both Ethernet and built-in Wi-Fi connectivity, the R450-DG streams AIS and GNSS data directly to PCs, servers, or mobile devices over wired or wireless networks. It supports local monitoring, sharing data across a network, or sending AIS and GNSS data over the Internet to a fixed IP address for centralised display.

The compact ABS enclosure with carbon-reinforced connector slides is lightweight yet durable, and houses Comar's proven high-sensitivity dual-channel parallel AIS receiver, trusted in professional environments worldwide.

APPLICATIONS

- Monitoring of shipping for government and port authorities
- Managing vessel traffic at port approaches
- Supporting search and rescue operations
- Locating vessels for tug and supply operators
- Analysing shipping activity in designated zones
- Monitoring fishing areas
- Feeding AIS & GNSS data to vessel tracking websites and services

RELATED PRODUCTS

R450-DGE - Network AIS receiver with integrated GNSS (No WiFi)
R450-D - Network AIS receiver

R500 Series - Intelligent Network AIS receivers

AV200, AV300, AV400 - AIS Antennas

SPECIFICATIONS

PHYSICAL	
Weight:	250g
Dimensions:	L 140 mm W 120 mm D 37 mm
Mounting:	To flat surface, #6 (3.5mm Dia) Pan Screws
Connections:	RJ45 Ethernet 10/100 Base-T (Digi®) USB 2.0 Port: Type B TNC Coaxial to GNSS antenna BNC Coaxial to VHF/AIS antenna
Construction:	ABS Enclosure, PETG-CF Connector Panels
Finish:	Black Fine-texture ABS

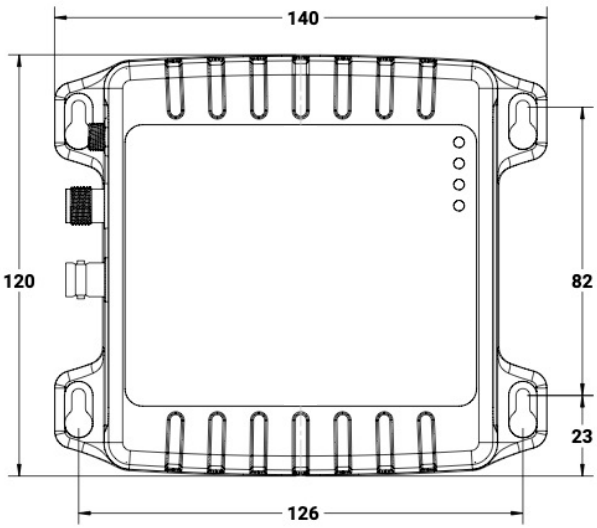
ELECTRICAL	
Power Supply:	12 V dc 3 W nominal (9-30 V dc)
Antenna Impedance:	50 Ω
Data Output:	NMEA 0183 VDM & GNSS messages, via USB, Ethernet and WiFi

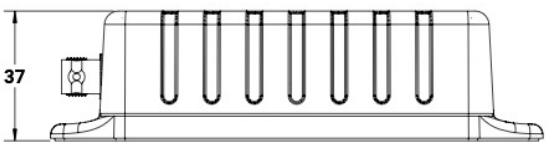
OPERATIONAL	
Frequency	Channel A 161.975 MHz Channel B 162.025 MHz
Sensitivity:	AIS: Up to -112 dBm GNSS: Up to -163 dBm
Display:	4 Indicator LEDs (On, Ch A, Ch B, WiFi)
Data Types Received:	Name of Vessel; MMSI Number; Position; Speed (SOG); Course (COG); Type of Vessel; Call Sign; Heading; Rate of Turn; Navigational Status; Vessel Dimensions; Destination; GNSS Position: Latitude, Longitude, Time

ENVIRONMENTAL	
IP Rating:	IP40
Operating temp:	-15°C to +55°C
Storage temp:	-15°C to +70°C
Operating humidity:	0-93% RH, non-condensing
Compass:	Safe Distance 50 cm

NETWORK	
WiFi Module:	Built-in, 2.4 GHz
WiFi Modes Supported:	Access Point, Station, AP+STA
WiFi Security:	WPA/WPA2, configurable SSID & password
WiFi Network Protocols:	TCP/IP, UDP/IP
LAN Network protocols:	TCP/IP, UDP/IP, ARP, ICMP, TFTP, TELNET, DHCP, BOOTP, HTTP and AUTOIP
Data Output:	AIS and GNSS as NMEA 0183 over TCP/ UDP, or USB
LAN Connections:	1 each for TCP Client / Server Up to 32 for UDP Client
WiFi/LAN Configuration:	Via integrated web interface

ADDITIONAL	
Supplied:	R450-DG AIS Receiver with Integrated GNSS
Supplied:	Universal 100-250 V ac to 12 V dc Power Supply
Supplied	BNC to UHF Antenna Connector Adaptor
Supplied:	2m Ethernet cable, 1m USB Cable
Download:	Network configuration program
Download:	AIS viewing program
Download:	USB to virtual com port driver





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