RECEIVERS

R550NGi INTELLIGENT NETWORK AIS & GNSS RECEIVER WITH WiFi

SKU: 001-1150

FEATURES

- **Designed for commercial land-based monitoring of maritime traffic**
- **Ideal for feeding vessel tracking data to a website or a vessel monitoring server**
- **Ethernet & Wi-Fi network connectivity**
- **Industry Grade Dual-channel AIS Receiver and Integrated GNSS Receiver**
- **Supplied with Comar Connect AIS & GNSS data forwarding software**
- **Built-in Microcomputer with Quad-core ARM Cortex-A72 processor for on-board data processing**
- **16GB eMMC for storing the OS and supporting software**
- **Built-in HDMI port for a Display Monitor**
- **2 Built-in USB-A host ports**
- **Bluetooth 5.0 enabled**
- **Low power consumption through the USB-C input**

OVERVIEW

The Comar R550NGi is an AIS & GNSS receiver interfaced to an ARMv8 microcomputer. The R550NGi is designed for coastal monitoring applications and is capable of filtering and processing AIS and GNSS data and forwarding it across a network. In this way, several R550 Series units can be used to form a complete networked monitoring solution for monitoring ports and their approaches.

The unit has both Wi-Fi and Ethernet connectivity, as well as 2 USB-A host ports and HDMI connector for a monitor display. What makes the R550NGi different from other receivers, is that it can be deployed in any AIS network using proprietary software specific to that network.

The R550NGi is designed for use by the commercial market and uses Comar's well proven and internationally specified high sensitivity dual channel parallel receiver and commercial grade GNSS receiver.

The R550NGi from Comar Systems: Quite possibly the most flexible, compact and powerful AIS and GNSS receiver available today.

APPLICATIONS

- For shoreside monitoring of shipping by Government bodies
- Managing traffic at local port approaches
- Assisting in Search and Rescue operations
- Locating ships for local tug/supply operators or security operations
- Analysing shipping in specific areas
- Monitoring fishing zones
- Feeding data to AIS vessel tracking websites

RELATED PRODUCTS

R550Ni - Intelligent Network AIS Receiver with Wi-Fi
AV300 - Fibreglass VHF Antenna
AV400 - Commercial Antenna for AIS

SPECIFICATIONS

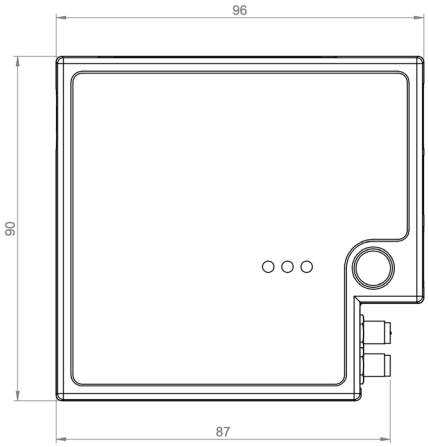
PHYSICAL	
Weight (Net):	130g
Dimensions:	L 90 mm W 96 mm D 28 mm
Connections:	USB-C (Power) RJ45 Gigabit Ethernet Port 2x USB 2.0 Type A Host Ports HDMI Port RP-SMA Male (to TNC Female adapter supplied) SMA Male (to BNC Female adapter supplied)
Construction:	ABS Enclosure
Finish:	Black, ABS

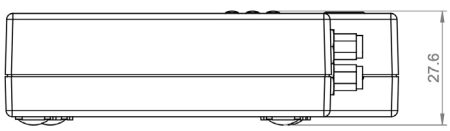
OPERATIONAL	
Frequency	Channel A 161.975 MHz Channel B 162.025 MHz GPS: 1575.42 MHz GLONASS: 1598.0625 – 1605.375 MHz
Sensitivity:	AIS: Up to -112 dBm GNSS: Up to -163 dBm
Micro computer:	Raspberry Pi Compute Module 4 64-Bit, Quad-core ARM Cortex-A72 processor 1GB RAM; 16GB eMMC (Other memory and storage options available)
Network:	Must be DHCP enabled for initial set-up. Fixed IP address can be later configured.
Wi-Fi:	Dual-band 2.4/5.0GHz, 802.11b/g/n/ac
Bluetooth:	Bluetooth 5.0
Display:	3 Indicator LEDs (Ch A; Ch B; Power ON)
NMEA 0183 Data Received:	AIS: Name of Vessel; MMSI Number (Subject to transponder setup); Position; Speed (SOG); Course (COG); Type of Vessel; Call Sign; Heading; Rate of Turn; Navigational Status; Vessel Dimensions; Destination and others GNSS: GPRMC
GNSS Constellations:	GPS, GLONASS
GNSS Channels:	32 Parallel Channels

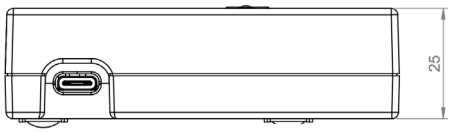
ELECTRICAL	
Power Supply Adapter (Recommended):	5.1V dc; 900 – 1200 mA typical
Antenna Impedance:	50 Ω
USB power:	100 mA each port (max)

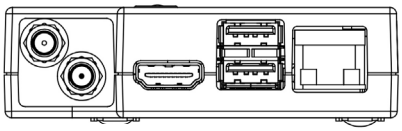
ENVIRONMENTAL	
IP Rating:	IP40
Operating temp:	-15° to +40°
Storage temp:	-15°C to +70°C
Operating humidity:	0-93% RH, non-condensing
Compass:	Safe Distance 50 cm

ADDITIONAL	
Supplied:	Comar Connect data management software, for advanced AIS & GNSS data forwarding and networking.
Supplied:	RP-SMA Male to TNC Female Connector SMA Male to BNC Female Connector
Note:	Wi-Fi & Bluetooth are only available via the Raspberry Pi OS, and not configurable through Comar Connect.
Note:	The USB ports operate as host interfaces for peripherals such as a keyboard, mouse, or USB storage device. They are not intended for AIS or GNSS data output.

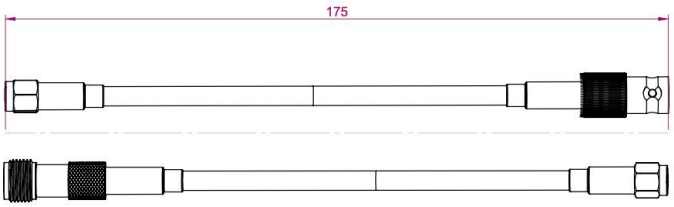








SMA to BNC & RP-SMA to TNC Cable Adapters:



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