



## FEATURES

- **Designed for commercial land-based monitoring of maritime traffic**
- **Wi-Fi and Ethernet network connectivity**
- **Industry Grade Dual Channel AIS Receiver**
- **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 ports for local monitoring**
- **Bluetooth 5.0 enabled**
- **Low power consumption through the USB-C input**
- **Ideal for feeding vessel tracking data to a website or a vessel monitoring server**

## RECEIVERS

# R550Ni INTELLIGENT NETWORK AIS RECEIVER WITH BLUETOOTH & WI-FI

SKU: 001-1149

## OVERVIEW

The Comar R550Ni with Wi-Fi is an AIS receiver interfaced to an ARMv8 microcomputer. The R550Ni is designed for coastal monitoring applications and is capable of filtering and processing AIS data and forwarding it across a network. In this way, several R550Ni units can be used to form a complete networked monitoring solution for monitoring a port and its approaches.

The unit has both Wi-Fi, Ethernet & Bluetooth connectivity, as well as 2 USB-A ports and HDMI connector for a monitor display. What makes the R550Ni different from other receivers, is that it can be deployed in any AIS network using proprietary software specific to that network.

The R550Ni is designed for use by the commercial market and uses Comar's well proven and internationally specified high sensitivity dual channel parallel receiver.

The R550Ni from Comar Systems: Quite possibly the most flexible, compact and powerful AIS 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

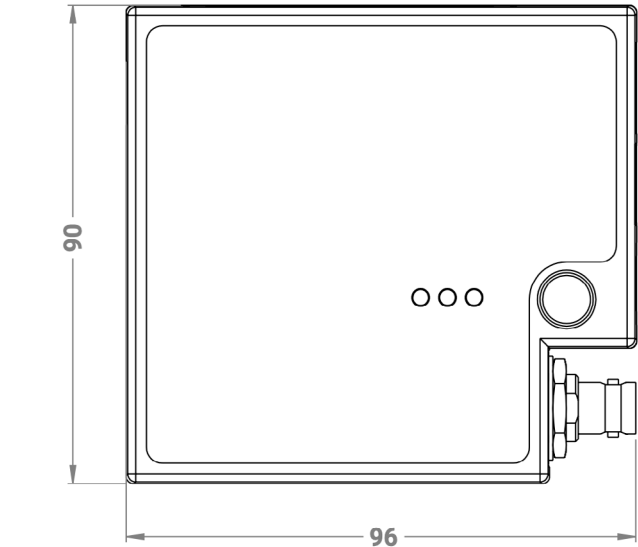
[R500NGi](#) - Intelligent Network AIS & GPS receiver with Wi-Fi

[AV300](#) - Fibreglass VHF Antenna

[AV400](#) - Commercial Antenna for AIS

| PHYSICAL      |   |
|---------------|---|
| Weight (Net): | 130g  |
| Dimensions:   | L 90 mm W 96 mm D 28 mm   |
| Connections:  | USB-C (Power);<br>RJ45 Gigabit Ethernet Port;<br>2x USB 2.0 Type A Port;<br>HDMI Port;<br>BNC Coaxial to Antenna; |
| Construction: | ABS Enclosure   |
| Finish:       | Black, Textured ABS   |

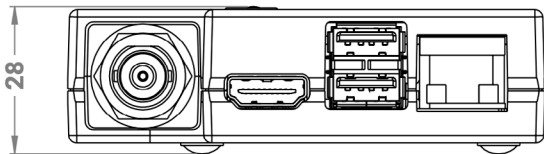
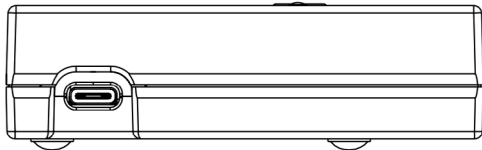
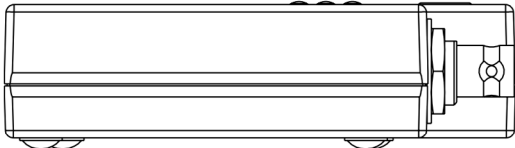
| OPERATIONAL          |   |
|----------------------|---|
| Frequency            | Channel A 161.975 MHz<br>Channel B 162.025 MHz  |
| Sensitivity:         | < -112 dBm  |
| Microcomputer:       | Raspberry Pi Compute Module 4<br>64-Bit, Quad-core ARM Cortex-A72 processor<br>1GB RAM; 16GB eMMC<br>(Other memory and storage options available)   |
| 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)   |
| Data Types Received: | 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 |



| 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° (Optional internal fan available) |
| Compass:        | Safe Distance 50 cm                            |

| ADDITIONAL |  |
|------------|--|
| Option:    | Pi CM4 supplied unprogrammed   |
| Option:    | R550Ni receiver with bespoke data management software on application |



Copyright © 2024 Comar Systems Ltd. - R550Ni Datasheet v06r01  
Vittlefields Technology Centre, Forest Road, Newport, Isle of Wight, United Kingdom. PO304LY  
Comar Systems Ltd. reserves the right to make changes to its products and specifications without prior notice.