



AIS Receiver AISR201

User Manual

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1. Introduction

The AISR201 is a portable and professional small-scale AIS receiver. It is a dual-channel AIS receiver integrated with a low noise amplifier (LNA), featuring compact size, lightweight, and low power consumption. The device can output data via USB and serial ports simultaneously, with the serial output supporting RS232, RS422, and RS485 protocols.



Packing List:

No.	Item	Quantity	Remarks
1	AISR201	1 unit	Standard
2	USB-TypeB Cable	1 piece	Standard
3	Small AIS Antenna	1 piece	Standard
4	DB9 Male Connector	1 piece	Standard
5	Professional AIS Antenna	1 piece	Optional
6	Antenna Cable (5m)	1 piece	Optional

2. Specifications

AISR201:

No.	Specification	
1	Input Voltage	3.7V~5.5V (5V recommended)
2	Power Consumption	70mA
3	Reception Frequencies	161.975 MHz, 162.025 MHz
4	Data Format	AIVDM
5	AIS Channels	2
6	Sensitivity	-115dBm
7	Bandpass Filter Range	156.3~162.025MHz
8	Input Impedance	50Ω
9	Output interface 1	USB
10	Output interface 2	RS232/ RS422 / RS485
11	Dimensions	100x75.8x34.8 mm (not including antenna connector)
12	Weight	240g
13	Antenna Connector	SMA

Small AIS Antenna:

No.	Specification	
1	Frequency Range	149-189MHz
2	Antenna Gain	2dBi
3	Interface Type	SMA
4	Antenna Size	Length 110mm, Diameter 8mm
5	Antenna Material	ABS plastic rod

Professional AIS Antenna:

No.	Specification	
1	Frequency Range	156-166MHz
2	Antenna Gain	5dBi
3	Protection Level	IP67

4	VSWR	≤ 1.5
5	Polarization	Vertical
6	Radiation Pattern	Omnidirectional
7	Input Impedance	50 Ω
8	Power Capacity	50W
9	Interface Type	N-J
10	Antenna Size	Length 120 cm, Diameter 2 cm
11	Antenna Material	Fiberglass
12	Total Weight	364g
13	Operating Humidity	5% ~ 95%
14	Operating Temperature	-40°C ~ +85°C

3. Interface

AISR201 Interfaces:

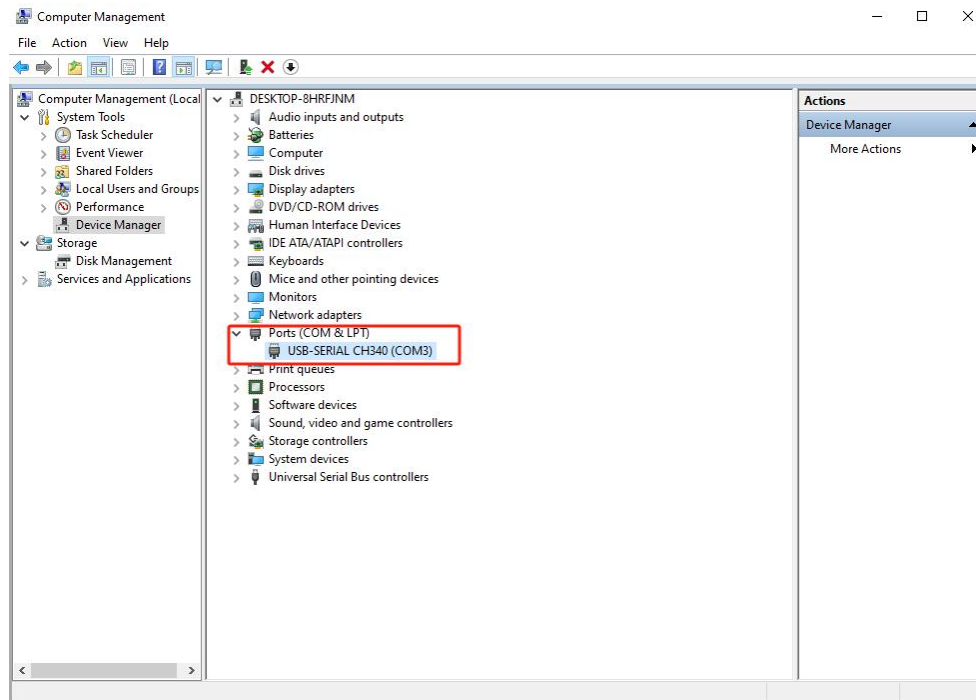
No.	Interface Name	Function
1	USB	Power supply for the main unit, data transmission
2	PWR	Power indicator light for the main unit
3	DATA	Data transmission indicator light
4	ANT	Antenna interface
5	SERIAL	Serial port interface, default RS232; for other protocols, please contact us for configuration

SERIAL Configuration:

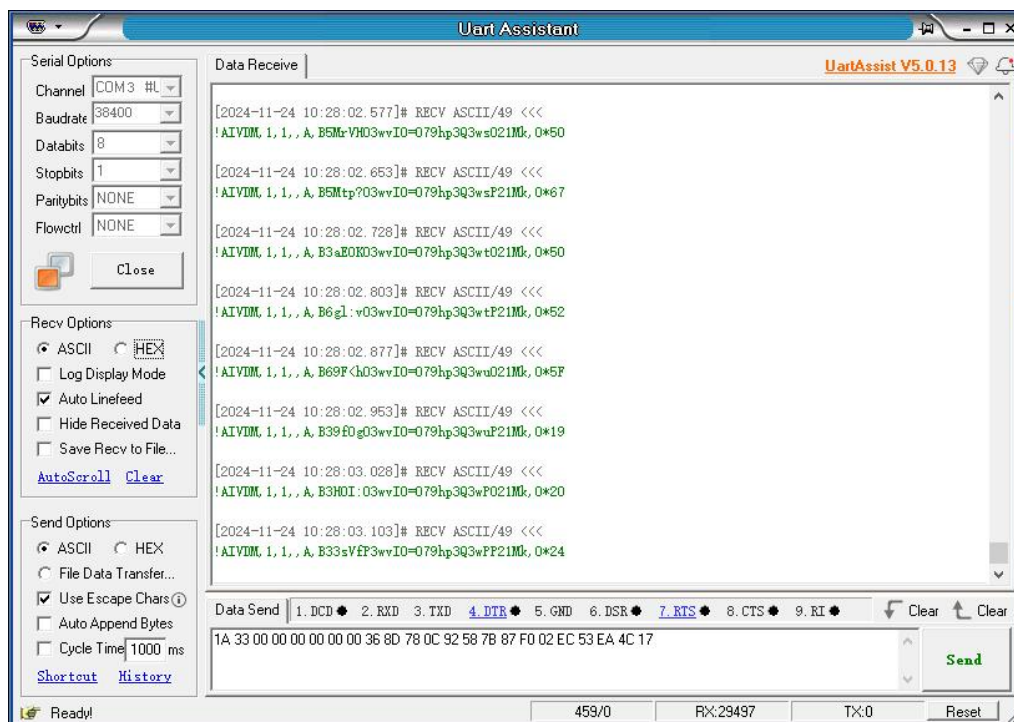
No.	Name	Configuration
1	Baud Rate	38400
2	Data Bits	8
3	Parity	none
4	Stop Bits	1

4. USB Connection

By using a USB-TypeB cable, the AISR201 can be connected to a computer. The computer's device manager will recognize a new COM port.



Enter the connection information for the COM port in the serial port debugger, and once connected, data can be received.

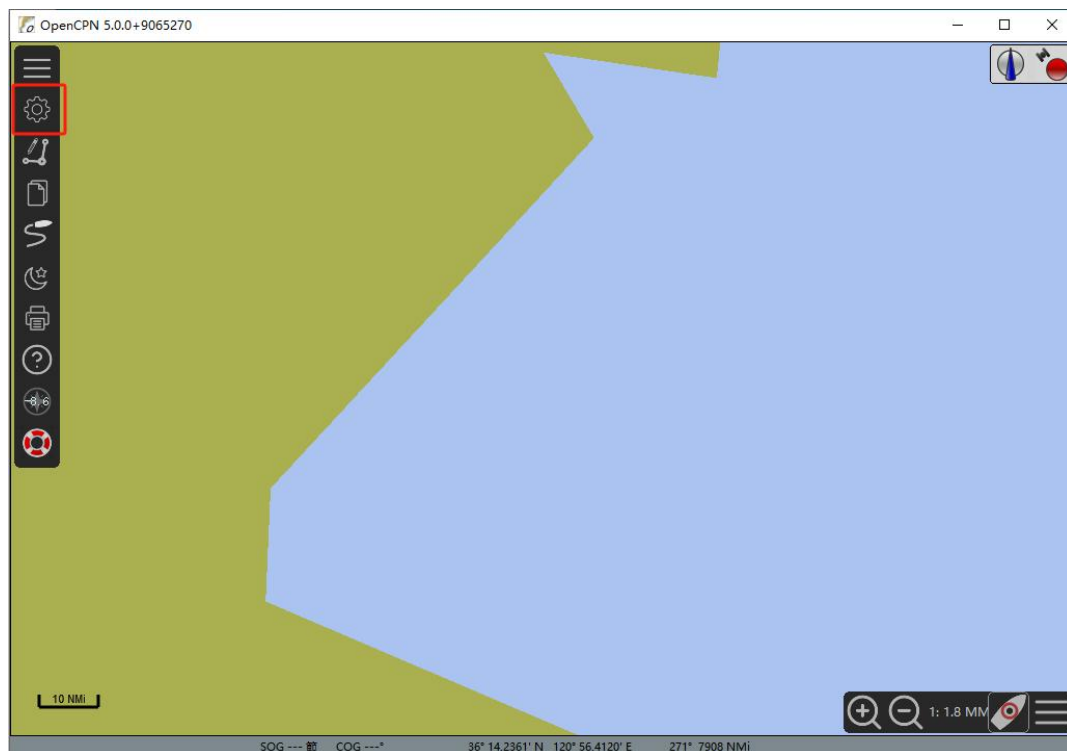


5. Serial Port Connection

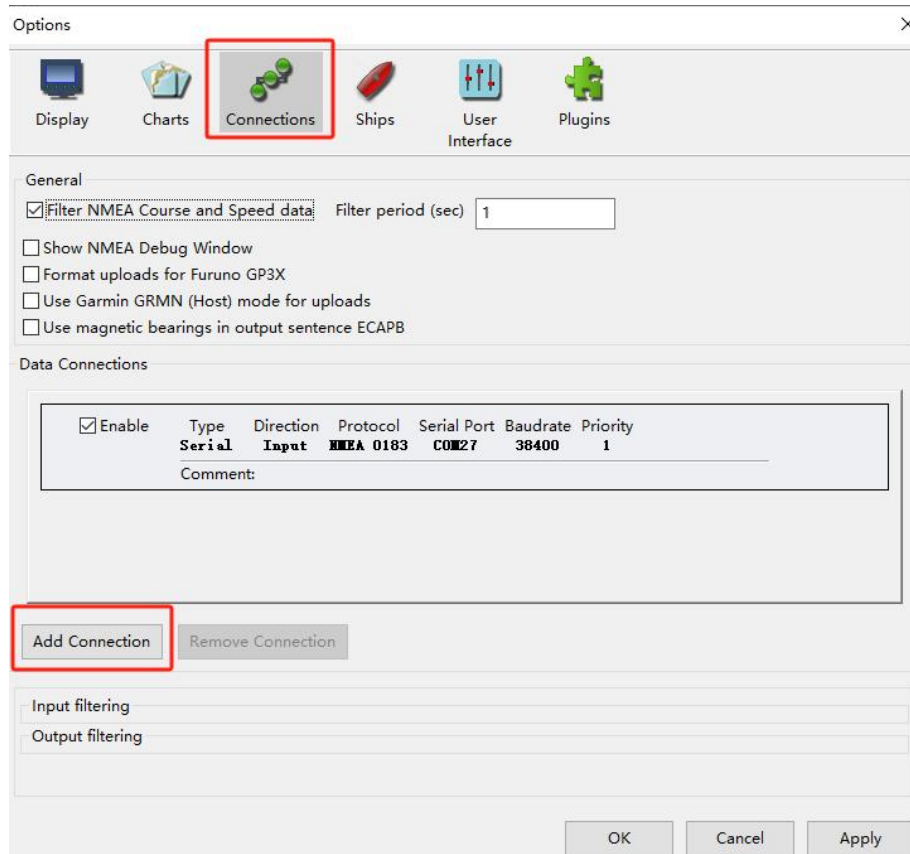
The AISR201 supports serial port connection for data transmission. The default output protocol is RS232. If RS422 or RS485 output protocols are required, please contact us in advance for configuration.

6. Display Software

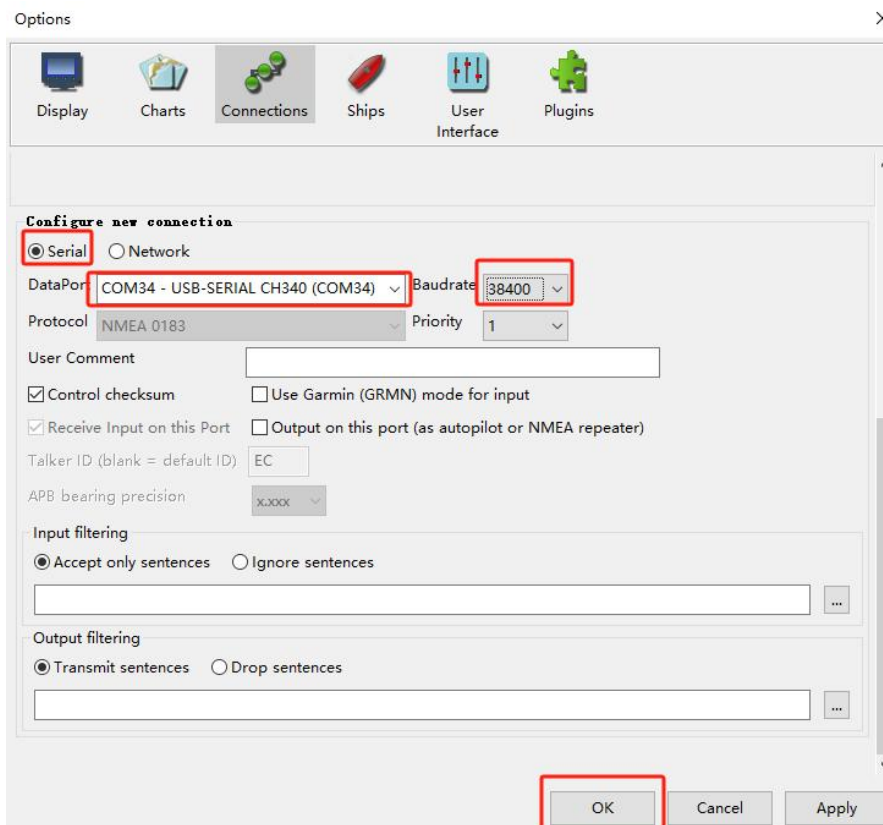
You can use the accompanying display software to show the received AIS data. Open the OpenCPN software and click the options button in the top-left corner.



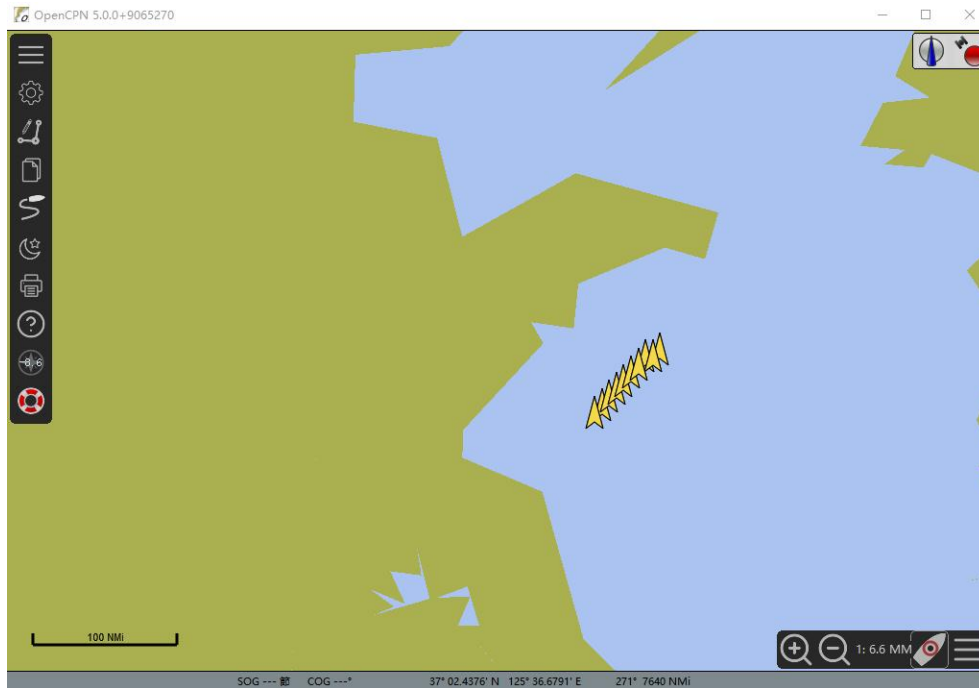
In the options window, click the "Connect" button, then click the "Add New Connection" button.



In the "Add New Connection" window, select "Serial Transmission," choose the correct COM port, set the transmission rate to 38400, and click "OK."



Move the map to your current location to display the data.



7. Customization

All our products can be supplied tailored to your specific needs and customized with your brand and logo. We tailor designs, enclosures, features, and data formats to meet your specifications. Our OEM services empower you to launch unique products swiftly and risk-free.

8. Contact Us

We welcome users, integrators, dealers and distributors to contact us.

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