

# ONWA<sup>®</sup>

MARINE ELECTRONICS



**MODEL**

## KS-200A

Class B+ AIS Transponder  
Black Box



**MODEL**

## KS-200A\_SART

Class B+ AIS Transponder  
Black Box with SART button



**AIS Technology**

**exactTrax<sup>™</sup>**

exactTrax TRACKING SERVICE



Built-in AIS Transponder

**RS232**

Electrical Interface  
and Programming

**NMEA0183**

Interface

# ➤ AIS TECHNOLOGY AND ONWA AIS SOFTWARE

## AIS TECHNOLOGY

The ONWA Class B+ AIS Transponder transmits and receives all AIS data of nearby targets around your boat (with suitable VHF Antenna)



Class B+ AIS Technology

- **SOTDMA Technology** - Same technology used by Class A
  - Guaranteed time slot allocation
- **5W Transmission Power** - increases the range and AIS Satellite reception enabling Global tracking
- **Increased Transmission Rate** (Based on speed)

## ONWA AIS SOFTWARE

AIS data of your vessel such as MMSI, Call Sign, Vessel name, etc. can be configured with the ONWA AIS Software

The screenshot shows the 'ONWA AIS-Config' window. At the top, there is a 'Serial(??)' section with a 'Serial port' dropdown menu set to 'COM1' and a 'NOT Connect(???)' button. Below this is the 'AIS information(??)' section, which contains several input fields: 'MMSI Number (MMSI ??)' with '0', 'SART Number (SART ??)' with '0', 'Call Sign (??)', 'IMO (IMO??)' with '0', 'Name (??)', and 'Tracking Group ID(???????)' with '0'. There are also 'Ship Type (???)' and 'Version( ???)' fields, both with '0'. To the right of these fields is a diagram of a GPS antenna (GPS Antenna (天线)) with dimensions A, B, C, and D. Below the diagram are two radio button options: 'TX Switch(????)' with 'TX\_ON (????)' selected and 'TX\_OFF (????)' unselected. At the bottom of the window are 'Read(??)' and 'Write(??)' buttons.



# exactTrax™

exactTrax Tracking

*\*Specify when ordering*

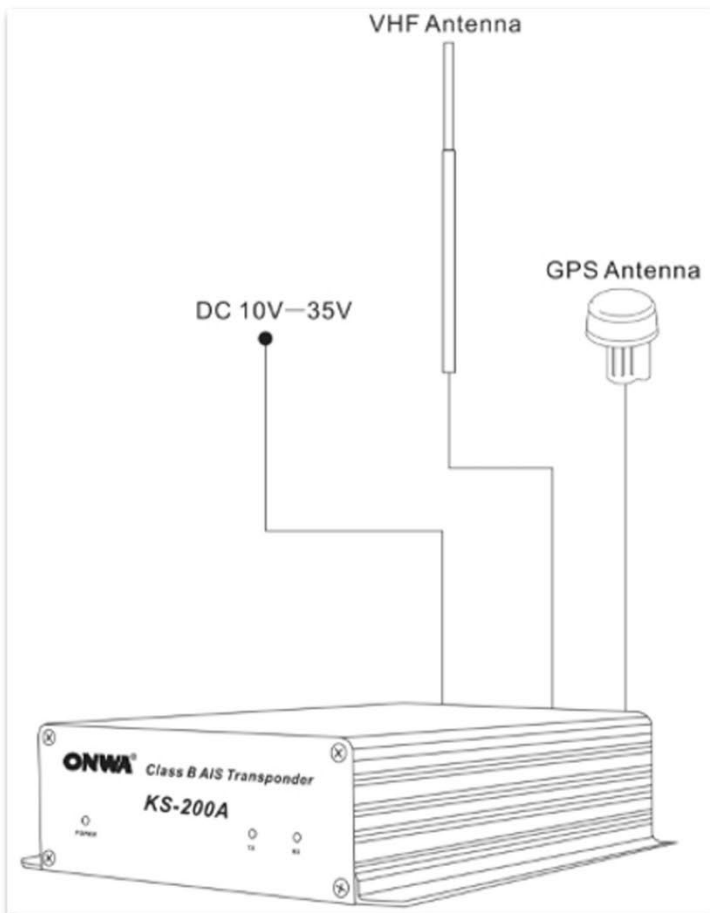
- Track fishing boats and small commercial vessels with AIS Class B type transceivers across the globe
- Can send standard AIS message and exactTrax message (exactTrax message shows MMSI and position only)
- ONWA AIS can connect other sensors to the AIS module, such as ultrasonic weather sensor and speed log, to send with exactTrax message

**NOTE:** In order to use exactTrax, user must avail ExactEarth Service



*ExactTrax showing position of a vessel sailing for 1 week from Hong kong to Malaysia in multi-hour vessel track*

## ► SYSTEM CONFIGURATION



*\*Suitable VHF Antenna*

• **KA-159**

*(not included in the set, specify when ordering)*



*\*GPS Antenna*

• **KA-07**

*(not included in the set, specify when ordering)*



# SPECIFICATIONS

## GPS Receiver (AIS Internal) Connectors

IEC 61108-1 compliant  
VHF Antenna connector PL259 female  
GPS Antenna connector BNC female  
Power/data connector 8 pins male

## PHYSICAL

Dimension: 207mm (length) x 155.8mm (width) x 50mm (height)  
Weight: 0.8kg

## POWER

Input: 10~35VDC  
Power Consumption: 0,35A nominal, 2A peak

## Electrical Interface

RS232 38.4kbaud bi-directional

## Environmental

IEC 60945 (Cat C)  
Operating Temperature: -25°C to +55°C

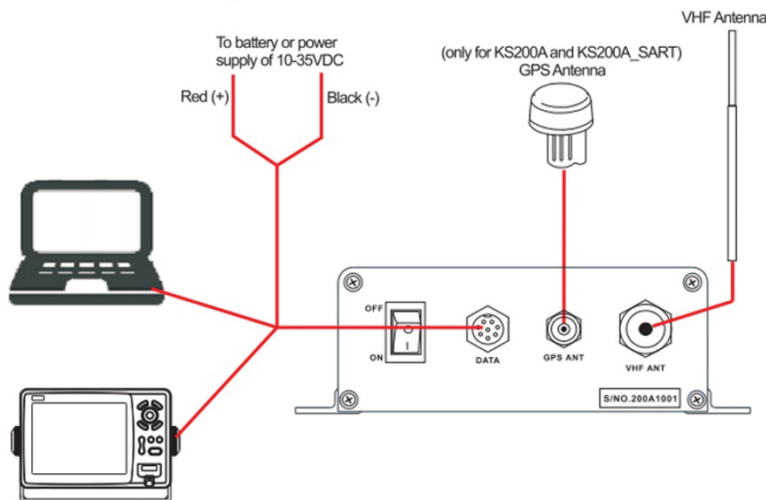
## NMEA Sentence Supported

VDM, VDO, RMC, GSV, GGA, GSA

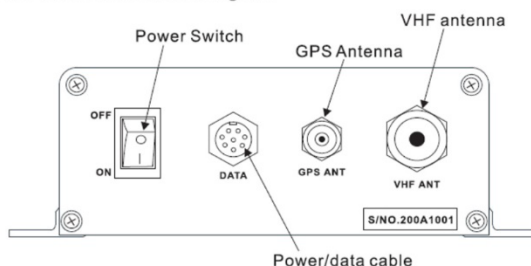
## AIS CHARACTERISTICS

Frequency Rate:	156.025 MHz~162.025 MHz	AIS Channel 1:	CH 87B (161.975 MHz)
Access Scheme:	SOTDMA	AIS Channel 2:	CH 88B (162.025 MHz)
Channel Bandwidth:	25 KHz	Tx Power Output:	> 5 Watt (37 dBm ± 1.5 dB)
Modulation:	GMSK	RX Sensitivity:	< -123dBm @ 20% PER
Number of AIS Transmitter:	1	RX Message Format:	AIS Class A and B messages
Number of AIS Receiver:	2	Comply Standard:	IEC-62287 IEC 62287-2 Ed. 2.0:2017

Interconnection diagram



KS200A Connection Diagram



DIMENSION

