

# 01

## UAC-08160X-II2S



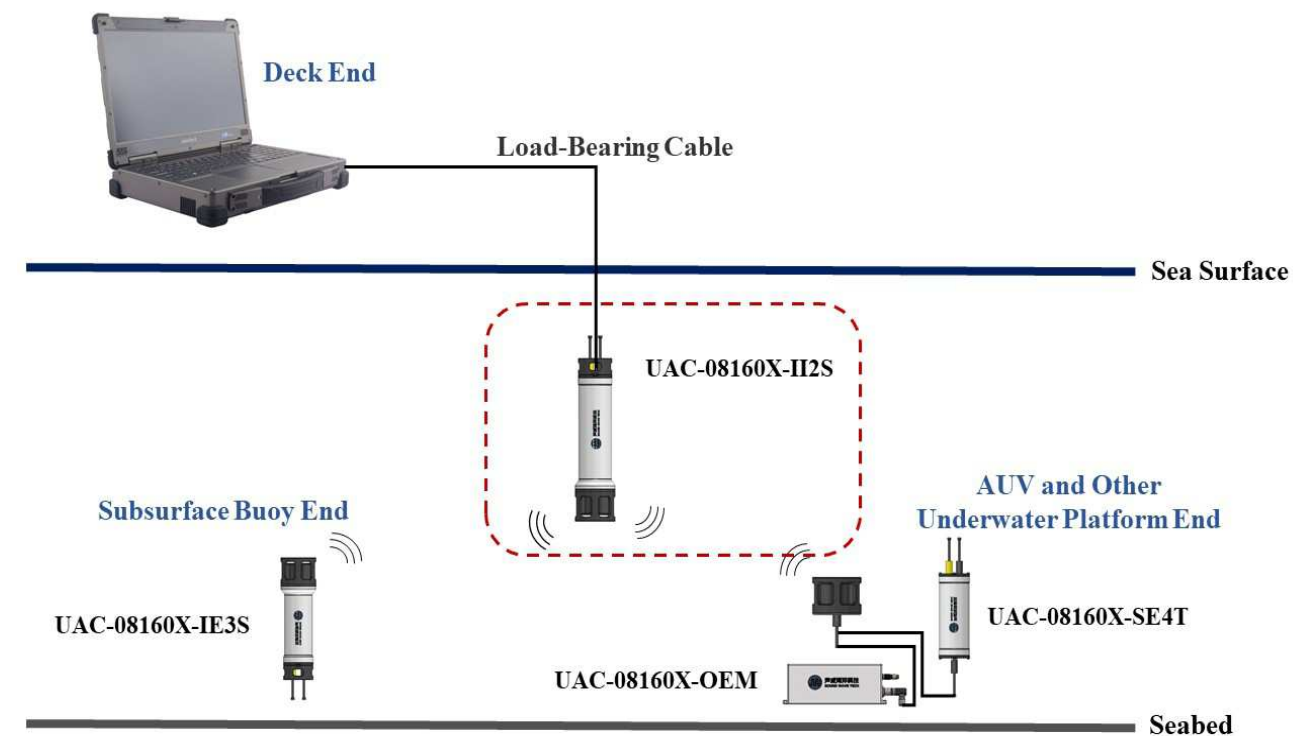
### ► Product Overview

The UAC-08160X-II2S underwater acoustic communication device, as a deck unit in the UAC-08160X series, is flexible to deploy and easy to use. Users can configure and operate the device using the provided upper-level software, along with a USB-to-RS485 serial cable and bearing cable. It comes with a standard 50m bearing cable for deployment at depths of up to 30m (the device is designed for a maximum pressure of 4.5MPa, and custom longer cables can be provided for deeper deployment). The built-in 7Ah@24V battery supports around 8 hours of operation per charge (based on 8 hours of reception and 1 hour of continuous maximum power transmission), meeting most offshore operational needs. This device offers reliable underwater communication with a range of up to 10km and a maximum user data rate of 4kbps (with a bit error rate of  $10^{-4}$ ).

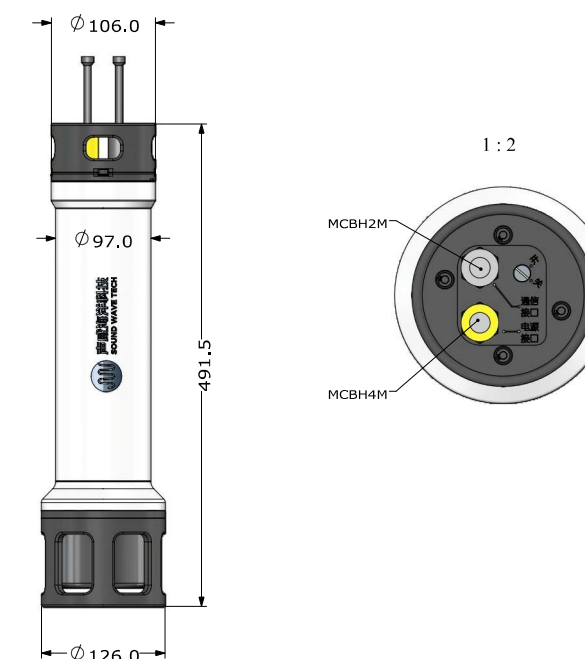
### ► Key Technical Indicators Of The Product

- Communication Frequency Range: 8kHz-16kHz
- Communication Distance: Up to 10km
- Communication Rate: 100bps-4kbps
- Bit Error Rate:  $10^{-4}$
- Operating Modes: Transmit Mode / Receive Mode
- Communication Type: Half-Duplex
- Communication Standard: Dual-Mode (MASS/SC-MPSK )
- Maximum Working Depth: 300m (over 2x design margin)
- Built-In Battery Capacity: 7Ah@24V
- Control Interface: RS485/RS232/RS422
- Dimensions: Diameter 126mm × Height 492mm
- Weight: 11.5kg (in air) / 8.5kg (in water)

### ► Application Diagram



### ► Dimensional Diagram





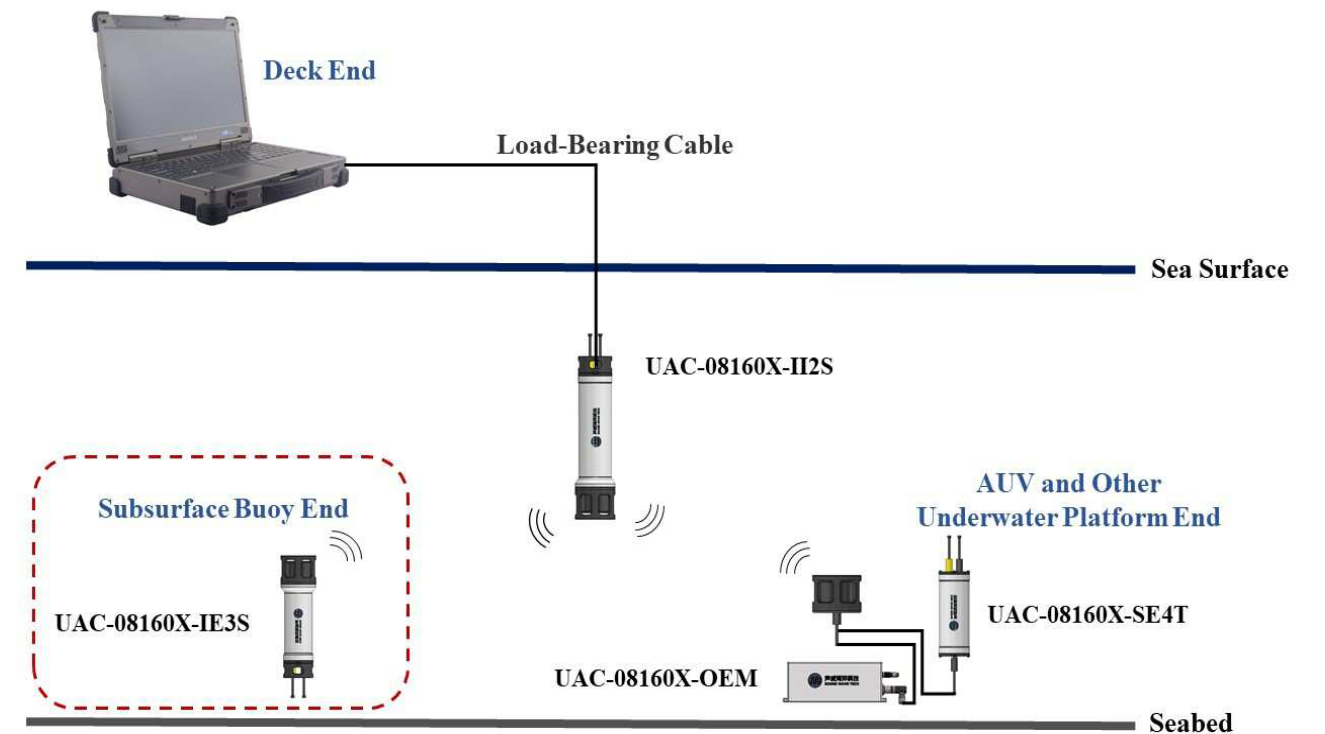
### ► Product Overview

The UAC-08160X-IE3S underwater acoustic communication device, designed for long-term observation platforms like seabed bases and buoys, features an integrated low-power standby Mode. It is externally powered, with a user-customizable battery compartment to meet diverse mission needs. Built with a monolithic structure and 2205 stainless steel, it comes with an RS232 serial port and operates at depths of up to 4000 meters, fulfilling communication requirements across most of China's South Sea regions. It supports standard control protocols and processes, offering technical support for protocol development. This device provides reliable acoustic communication with a maximum range of 10 km and a user data rate of up to 4 kbps (BER  $10^{-4}$ ).

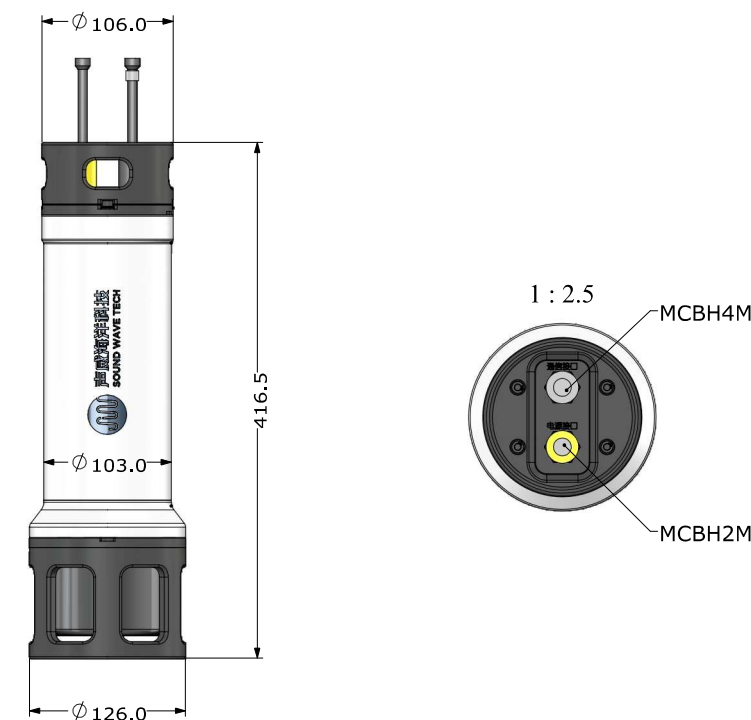
### ► Key Technical Indicators Of The Product

- Communication Frequency Range: 8kHz-16kHz
- Communication Distance: Up to 10km
- Communication Rate: 100bps-4kbps
- Bit Error Rate:  $10^{-4}$
- Operating Modes: Transmit Mode / Receive Mode/Standby Mode
- Communication Type: Half-Duplex
- Communication Standard: Dual-Mode (MASS/SC-MPSK )
- Maximum Working Depth: 4000m (with a design margin of 600m)
- Standby Power Consumption: 20mW
- Receive Mode Power Consumption: 3.6W
- Transmit Mode Power Consumption: up to 120W (with adjustable power levels)
- Power Supply Voltage: DC 24V
- Control Interface: RS232/RS485/RS422
- Dimensions: Diameter 126mm × Height 420mm
- Weight: 12kg (in air) / 8.6kg (in water)

### ► Application Diagram



### ► Dimensional Diagram



03

# UAC-08160X-SE4T



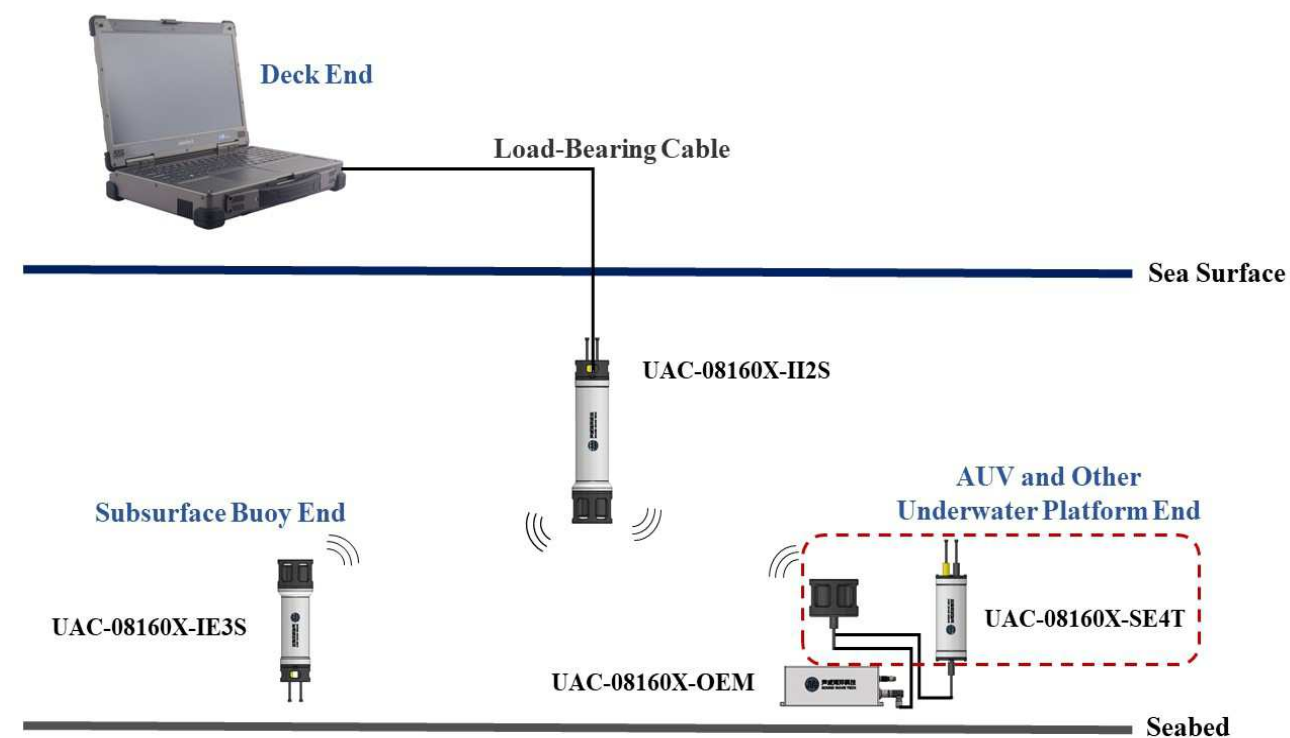
## ► Product Overview

The UAC-08160X-SE4T underwater acoustic communication device features a built-in low-power duty module, designed for long-term observation platforms such as seabed bases and buoys. Powered externally, it allows users to design custom battery compartments based on mission requirements, meeting diverse user needs. With a modular structure, it can operate at depths of up to 6000m, offering flexible installation. The device is lightweight, constructed from TC4 titanium alloy, catering to weight-sensitive applications. It supports standard control protocols and provides technical assistance for protocol development. This device provides reliable acoustic communication with a maximum range of 10 km and a user data rate of up to 4 kbps (BER  $10^{-4}$ ).

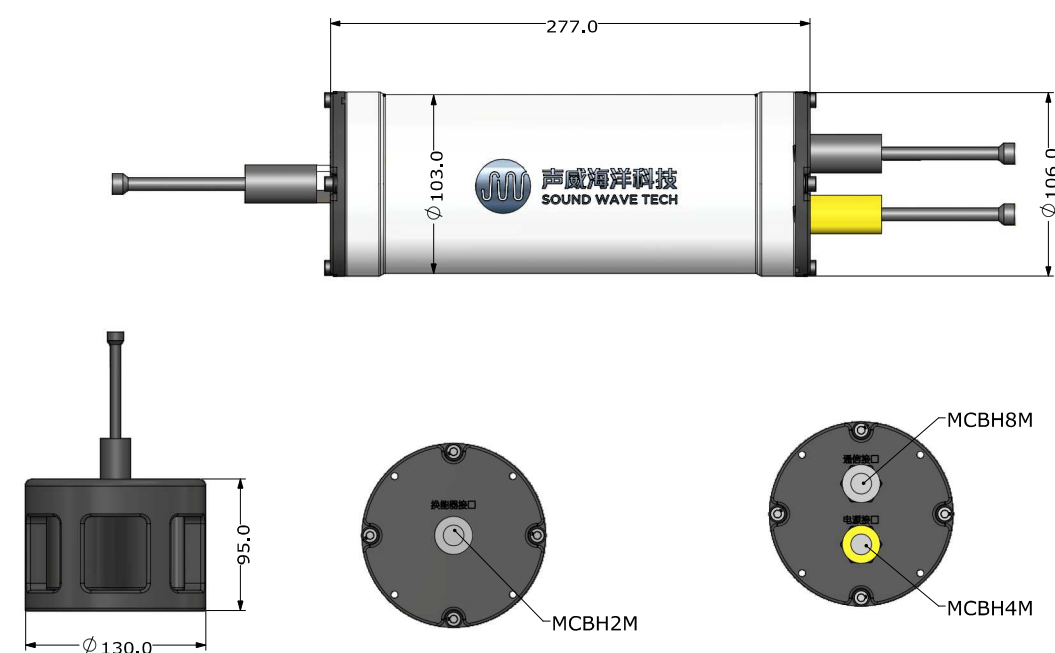
## ► Key Technical Indicators Of The Product

- Communication Frequency Range: 8kHz-16kHz
- Communication Distance: Up to 10km
- Communication Rate: 100bps-4kbps
- Bit Error Rate:  $10^{-4}$
- Operating Modes: Transmit Mode / Receive Mode/Standby Mode
- Communication Type: Half-Duplex
- Communication Standard: Dual-Mode (MASS/SC-MPSK )
- Maximum Working Depth: 6000m (with a design margin of 600m)
- Standby Power Consumption: 20mW
- Receive Mode Power Consumption: 3.6W
- Transmit Mode Power Consumption: up to 120W (with adjustable power levels)
- Power Supply Voltage: DC 24V
- Control Interface: RS232/RS485/RS422
- Dimensions: Diameter 106mm × Height 277mm
- Weight: 5kg (in air) / 2.6kg (in water)

## ► Application Diagram

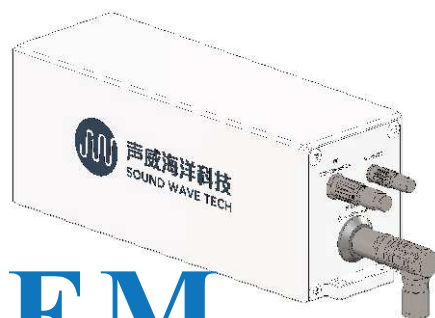


## ► Dimensional Diagram



# 04

## UAC-08160X-OEM



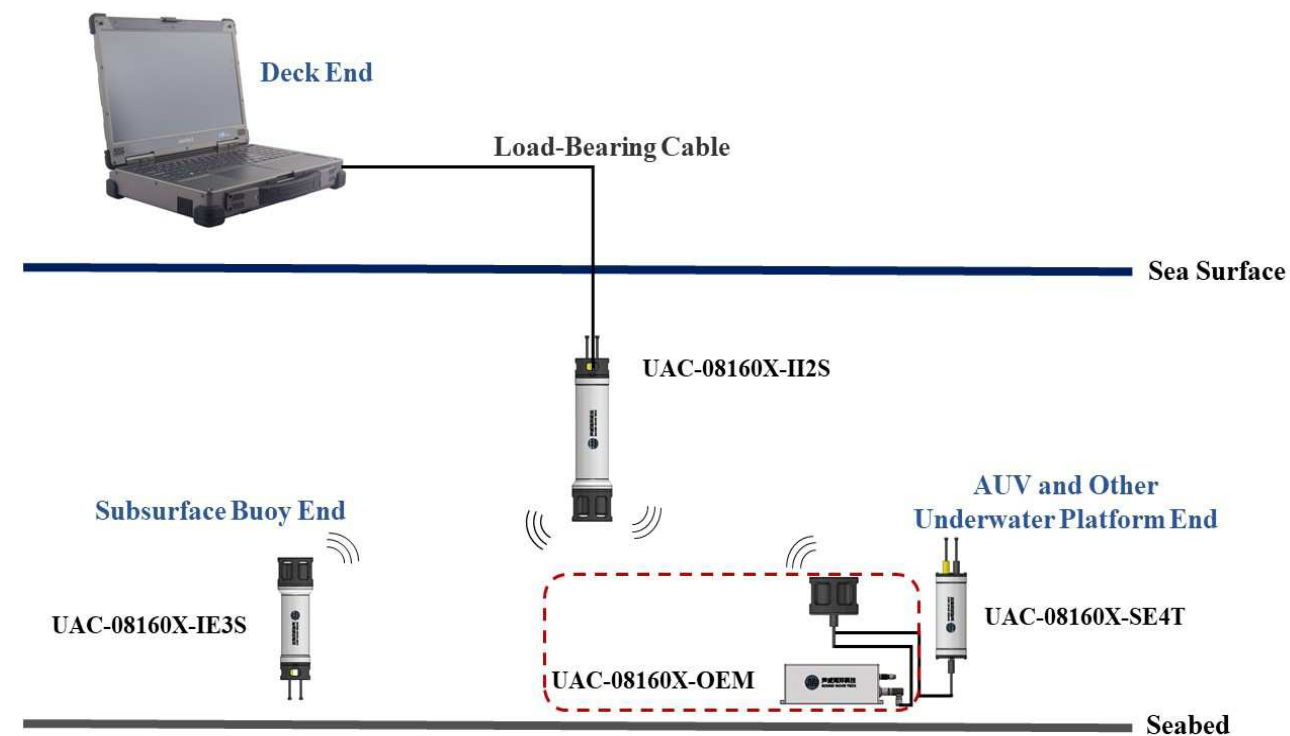
### ► Product Overview

The UAC-08160X-OEM underwater acoustic communication device is an OEM model designed for deep collaboration with users. It supports large platforms such as buoys, seabed bases, UUVs, gliders, wave gliders, and more. An optional low-power duty module is available for long-term observation platforms like seabed bases and buoys, while configurable software for mobile platforms like UUVs offers maximum flexibility. The included OEM sensor supports operation at depths of up to 6000m. The device adheres to standard control protocols and provides technical support for protocol development. This device provides reliable acoustic communication with a maximum range of 10 km and a user data rate of up to 4 kbps (BER  $10^{-4}$ ).

### ► Key Technical Indicators Of The Product

- Communication Frequency Range: 8kHz-16kHz
- Communication Distance: Up to 10km
- Communication Rate: 100bps-4kbps
- Bit Error Rate:  $10^{-4}$
- Operating Modes: Transmit Mode / Receive Mode/Standby Mode
- Communication Type: Half-Duplex
- Communication Standard: Dual-Mode (MASS/SC-MPSK )
- Maximum Working Depth: 6000m (with a design margin of 600m)
- Standby Power Consumption: 20mW
- Receive Mode Power Consumption: 3.6W
- Transmit Mode Power Consumption: up to 120W (with adjustable power levels)
- Power Supply Voltage: DC 24V
- Control Interface: RS232/RS485/RS422
- Dimensions: Length 238mm × Width 75mm × Height 88mm
- Weight: 1.6kg

### ► Application Diagram



### ► Dimensional Diagram

