

# SONIC 2026

## Wideband Multibeam Echo Sounder

### Features:

- Focused Beams to 0.5° x 0.5°
- Wideband 170 kHz – 450 kHz
- 90 kHz & 100 kHz Option
- Selectable swath sector 10° to 160°
- Pitch and Roll Stabilization
- Sounding Depth to 600m+
- Embedded processor/controller
- Low Weight, Volume and Power



### System Description:

The Sonic 2026 is the most advanced broadband – wideband multibeam sonar of its kind.

With wide selectable operating frequencies between 170 kHz and 450 kHz to 1 Hz resolution, and optional 90 kHz and 100 kHz, with sounding depth capability to 600m or more, the user has unparalleled flexibility to trade off resolution and range and controlling interference from other active acoustic systems.

In addition to selectable frequencies, the Sonic 2026 provides variable swath coverage selections from 10° to 160° the ability to rotate the swath port or starboard in real-time, as well as roll and pitch stabilization.

The Sonar consists of the three major components: a compact and lightweight projector, a receiver and a small dry-side Sonar Interface Module (SIM). Third party auxiliary sensors are connected to the SIM. The sonar data is tagged with GPS time.

The sonar operation is controlled from a graphical user interface on a PC or laptop typically equipped with navigation, data collection and storage applications software.

The operator sets the sonar parameters in the sonar control window, while depth, imagery and other sensor data are captured and displayed by the applications software.

Commands are transmitted through an Ethernet interface to the SIM. The SIM supplies power to the sonar heads, synchronizes multiple heads, time tags sensor data, and relays data to the applications workstation and commands to the sonar head.

The receiver head decodes the sonar commands, triggers the transmit pulse, receives, amplifies, beamforms, bottom detects, packages and transmits the data through the Sonar Interface Module via Ethernet to the control PC.

The elimination of separate processors and interface bottles makes this sonar *well suited for AUV installation*. Apart from the projector and receiver, the only hardware to be housed on the AUV is an interface board the size of a PC/104 board, Ethernet ports for interface, and the provision of isolated 48V DC power.

100 kHz	200 kHz	450 kHz
2° x 2°	1° x 1°	0.5° x 0.5°

Beam widths at selected frequencies (nadir)

# Sonic 2026 Multibeam Echo Sounder

## Systems Specification:

Frequency	170 kHz – 450 kHz 90 kHz & 100 kHz (optional)
Beamwidth, Across Track	0.5°
Beamwidth, Along Track	0.5°
No. of Beams	256
Selectable Swath Sector	10° to 160°
Sounding Depth	600m+*
Pulse Length	15 $\mu$ s – 2000 $\mu$ s
Pulse Type	Shaped CW
Ping Rate	Up to 60 Hz
Depth Rating	100 m
Operating Temperature	-10° C to 50° C
Storage Temperature	-30° C to 55° C

## Electrical Interface

Mains	90-260 VAC, 45-65 Hz
Power Consumption	100 W (Sonar Head)
Uplink/Downlink:	10/100/1000Base-T Ethernet
Data Interface	10/100/1000Base-T Ethernet
Sync In, Sync out	TTL
GPS	1PPS, RS-232
Auxiliary Sensors	RS-232
Deck Cable Length	15 m

## Mechanical:

Receiver Dim (LWD)	480 x 109 x 190 mm
Receiver Mass	12.9 kg
Projector Dim (LWD)	480 x 109 x 196 mm
Projector Mass	13.4 kg
Sonar Interface	280 x 170 x 60 mm
Module Dim (LWH)	
Sonar Interface	2.4 kg
Module Mass	

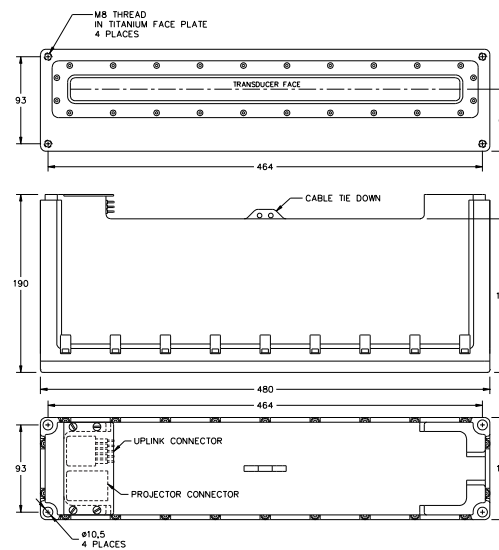
## Sonar Options:

90 kHz & 100 kHz Operation  
 Snippets/TruePix Imagery Output  
 Switchable Forward Looking Sonar Output  
 Raw Water Column Data Output  
 Integrated Inertial Navigation System  
 Integrated Sediment Profiler  
 Mounting Hardware & Assemblies  
 4000/6000m Immersion Depth Ratings  
 Antifouling Coating Protection

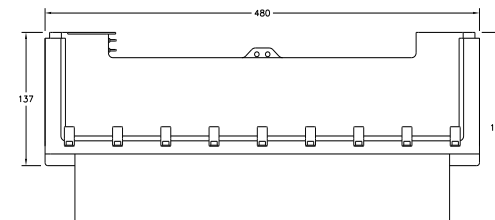
\*Max sounding depths depend on environmental conditions



## Sonar Interface Module



## Sonic 2026 Receiver



## Sonic 2026 Projector

High Resolution  
Multibeam  
Systems  
for:

Hydrography

Offshore

Dredging

Defense

Research

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