

Dual Head SONIC 2020

Wideband Multibeam Echo Sounder

Features:

- Ultra Compact & Low Cost
- Weighs only 9kg (air), 3kg (water)
- Selectable Frequencies 200-400kHz
- Swath Coverage to 12x Water Depth
- Amplitude & Phase Bottom Detection
- Equiangular or Equidistant beams
- Pitch & Roll Stabilization
- Includes Snippets, TruePix & Water Column

System Description:

Dual Head Sonic 2020 is the most compact, lightweight and productive low cost true beamforming wideband shallow water multibeam echo sounder, suitable for a wide variety of general mapping applications.

Dual Head Sonic 2020 provides over 20x selectable operating frequencies from within the 200 to 400 kHz band, with flexibility to optimize to environmental conditions and controlling interference from other active acoustic systems.

In addition to selectable operating frequencies, Dual Head Sonic 2020 provides variable swath coverages from 10° to 130° (per head) as well as ability to rotate the swath either port or starboard side electronically in real-time. With the combined flexibility, up to 12x water depth coverage or more is obtainable with the Sonic 2020 in shallow water, depending upon degree of fixed head tilt, selected beam overlap and environmental conditions.

Optional high performance, low cost integrated inertial navigation system (I2NS), integrated real-time sound velocity sensor is offered to simplify installation and calibration, making the Dual Head Sonic 2020 a perfect asset for highly productive surveys on vessels of opportunity, small survey launches and ASVs.



Dual Head Sonic 2020 with Mount Bracket & SV probe



Dual Head Sonic 2020 Survey Lock & Dam Mississippi River

Dual Head Sonic 2020 Multi Beam Echo Sounder

Systems Specification:

Frequency	200kHz-400kHz
Beamwidth, Across Track	2.0°
Beamwidth, Along Track	2.0°
Number of Soundings* (per head)	256/512/1024
Swath Coverage**	Up to 12x WD+
Sounding Depth***	Up to 75m+
Pitch Stabilization	Yes
Roll Stabilization	Yes
Pulse Length	15µs-1000µs
Pulse Type	Shaped CW
Depth Rating	100m
Operating Temperature	-10°C to 50°C
Storage Temperature	-30°C to 55°C

Electrical Interface

Mains	90-260 VAC, 45-65Hz
Power Consumption	75W
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	15m

Mechanical:

Sonar Dimension (per head)	140 x 161 x 133.5mm
Sonar Mass (air/water) (per head)	4.4kg / 1.5kg

Sonar Options:

Integrated Inertial Navigation System (I2NS)
4000m Immersion Depth Rating
Mounting Hardware & Assemblies
Antifouling Coating Protection

*Selectable normal / dual / quad modes of operation
**Swath coverage depending on degree of fixed head tilt,
selected beam overlap and environmental conditions.
***Sounding depth based on environmental conditions.

Sonar Interface Module (SIM)



Sonic 2020 Receiver / Projector



High Resolution
Multibeam
Systems
for:

Hydrography

Offshore

Dredging

Defense

Research

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Pioneers of Wideband High Resolution Multibeam Systems