ECHO81

YOUR SUBSEA SOLUTIONS SPECIALIST

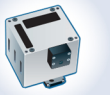
R2SONIC
OUR VISION IS SOUND™

MULTIBEAM ECHOSOUNDERS

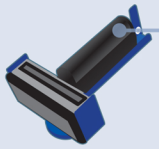
Beamwidth and depth range are the 2 main characteristics that differentiate each of our MultiBeam EchoSounders (MBES). All options can be implemented on all products, except for the option to operate at 90kHz/100kHz that is exclusive to the Sonic 2026 (at the expense of the UHR option). This provides high flexibility to end-users to upgrade their equipment remotely. Additionally, the firmware of all 4 MBES can be upgraded remotely.

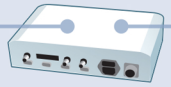
Standard Features for all R2Sonic MBES

SONIC 2020



Extra Light & Compact!





Ethernet

User-friendly, simple and easy to learn controller interface

Clean and small data files which require minimum data processing time

- Power supplied to sonar head
- Synchronization of multiple heads

- Ultra High Density (UHD): 1024 soundings per ping
- Selectable operating frequencies 'on-the-fly' in steps of 1Hz
- Ability to rotate the swath sector 'on-the-fly'
- Free firmware updates can be done remotely by end users
- Low power consumption for the performance delivered
- Light & compact
- Training delivered by experts
- Options upgradable remotely
- Embedded processor / controller in the sonar head that enables fast and powerful computation at low power (no separate topside processor)
- 3-year warranty
- All R2Sonic MBES exceed IHO-S44 Special Order, when installed following the instructions from the Manual and used with the I2NS and the Sound Velocity Sensor offered by R2Sonic

Only R2Sonic does it...

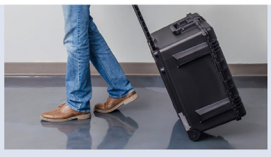
- Multispectral mode: survey with up to 5 frequencies in 1 pass and with 1 MBES. **Saves Time & Money!**
- Increased true sounding density with UHD → **It Provides Accurate and Truthful Resolution***
- **Smallest Beamwidth Available!** Down to **0.3° x 0.6°**
- Clean and small data files which reduces processing time and **Saves Time & Money!**
- Ability to upgrade options remotely
- Free firmware updates
- Optional 6-year warranty, which **minimizes risk** on investment
- 24/7 technical support via email and phone wherever you are in the world
- Express and high quality repairs, performed by the team that engineered the systems

Quick Mobilization

Easy to Pack

Easy to Maneuver

Easy to Check-In



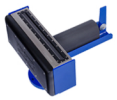
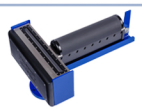
Sonic Series store easily in Peli™ Case, for increased mobility

MADE IN USA

Technical Specifications

Multibeam Echosounders



	Sonic 2020	Sonic 2022	Sonic 2024	Sonic 2026
Applications	Entry level hydrography Very small vessels Small ASV and AUV	Construction Dredging Autonomous Surface Vehicle (ASV) Offshore O&G (pipeline)	Autonomous Surface Vehicle (ASV) Construction Dredging Offshore O&G (pipeline) Offshore WindFarm (cable, towers)	Advanced hydrography Research Seafloor characterization Autonomous Underwater Vehicle (AUV) Remote Operated underwater Vehicle (ROV)
Selectable Frequencies	200kHz - 450kHz. Optional 700kHz	170 - 450kHz. Optional 700kHz		170 - 450kHz. Optional 90kHz and 100kHz
Minimum frequency increase	1Hz			
Beamwidth, across track and along track	1° x 1° at 700kHz (optional) 1.8° x 1.8° at 450kHz 4° x 4° at 200kHz	0.6° x 0.6° at 700kHz (optional) 0.9° x 0.9° at 450kHz 2° x 2° at 200kHz	0.3° x 0.6° at 700kHz (optional) 0.45° x 0.9° at 450kHz 1° x 2° at 200kHz	0.45° x 0.45° at 450kHz 1° x 1° at 200kHz 2° x 2° at 90kHz & 100kHz (optional)
Number of soundings	Up to 1024 soundings per ping			
Max speed (vessel)	11.1 knots for full coverage (*)			
Near-field focusing*	Yes			
Roll stabilized beams	Yes			
Pitch stabilized beams	Yes	No		Yes
ROBO™ Automated Operation	Yes Auto Power, pulse width, rangeTrac™, GateTrac™, SlopeTrac™			
Saturation monitor	Yes			
Selectable Swath Sector *(also referred as Max Coverage)*	10° to 130° User selectable in real-time	10° to 160° User selectable in real-time		
Sounding Patterns	Equiangular Equidistant single / double / quad modes Ultra High Density (UHD)			
Sounding Depth	up to 200m+	up to 400m+		up to 800m+
Pulse Length	15µs - 1ms			15µs - 2ms
Pulse Type	Shaped CW			
Ping rate	up to 60Hz			
Bandwidth	up to 60kHz			
Immersion Depth	100m Optional 4000m		100m Optional 4000m & 6000m	100m Optional 4000m
	FLS projectors are rated 4000m	FLS projectors are rated 3000m		FLS projectors are rated 4000m
Bottom Detect Resolution	3mm			
Operating Temperature	-10°C to 40°C	-10°C to 50°C		
Storage Temperature	-30°C to 55°C			

Electrical Interface

Mains	90-260VAC, 45-65Hz			
Power consumption	20W avg	35W avg	50W avg	100W avg
Uplink/downlink	10/100/1000Base-T Ethernet			
Sync in, Sync out	TTL			
Deck cable length	15m, optional 25m and 50m			

Mechanical

Sonar Dimension (Sonic 2020)	140 x 161 x 133.5 mm			
Sonar Mass (Sonic 2020)	4.4kg			
Receiver Dim (LWD)		276 x 109 x 190 mm	480 x 109 x 190 mm	
Receiver Mass		7.7kg	12.9kg	
Projector Dim (LWD)		273 x 108 x 86 mm		480 x 109 x 196 mm
Projector Mass		3.3kg		13.4kg
Sonar Interface Module Dim (LWH)	280 x 170 x 60 mm			
Sonar Interface Module Mass	2.4kg			

Visit our website for more info:
www.echo81.com

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