Shark-S100DP Deep-Water Dual-Frequency Side Scan Sonar

www.lcsonar.com

High-resolution imaging

Wide scanning range

Robust, reliable, and durable

Deep-water surveying

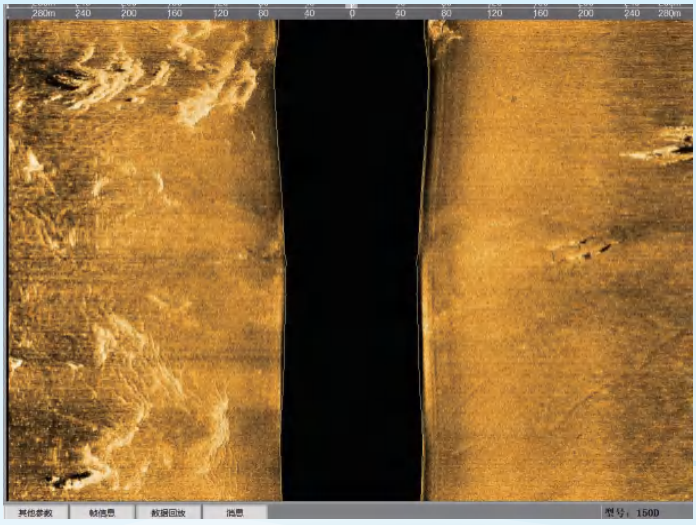
Shark-S100DP Deep-Water Dual-Frequency Side Scan Sonar is a versatile sonar system designed for surveys in deeper waters. It features dual-frequency (100 kHz and 400 kHz) simultaneous transmission and reception, along with Chirp modulation processing technology, enabling wide swath coverage while ensuring high-resolution imaging.

The sonar system features a rugged stainless-steel towfish, armored Kevlar cable, splash-proof deck unit, and intuitive OTech software. Engineered for durability and reliability, the towfish supports multiple mounting options, including towing, bottom deployment, and side-hull installation. The Shark-S100DP can be optionally equipped with a USBL positioning system, and a magnetometer interface is available for seamless integration with external magnetometers. A towing overload protection structure is incorporated to effectively safeguard against impacts.

The proprietary OTech software combines ease of use with powerful functionality, offering features such as real-time image mosaicking, sonar image waterfall display, survey line planning and navigation, track tracking and coverage display, data recording and playback, target management and export, and multi-window sensor information display. The software utilizes adaptive equalization processing technology to ensure consistent image quality across both near and far ranges. With minimal parameter settings and a user-friendly UI design, it is straightforward to operate. It supports output in the standard XTF format, compatible with third-party post-processing software. The enhanced version of the software can output multiple raw data formats in real time for the development of AI-based automatic target recognition.

Features

- Dual Frequency, Simultaneous Operation
- Seamlessly Integrates with Magnetometer and USBL Positioning Systems
- Standard Heading, Pitch, Roll and Pressure Sensors
- Build-in Echosounder , Accurately Tracks Towfish Height
- 316 Stainless Steel Towfish , Depth Rated up to 2000m
- Supports real-time mosaicking, raw data output, and SDK development



Applications

- Hydrographic Surveys
- Geophysical Surveys
- Cable and Pipeline Surveys
- Wide Area Search and Recovery
- Pier/Harbor Wall Inspections
- Archaeological Surveys
- Wreck Hunting

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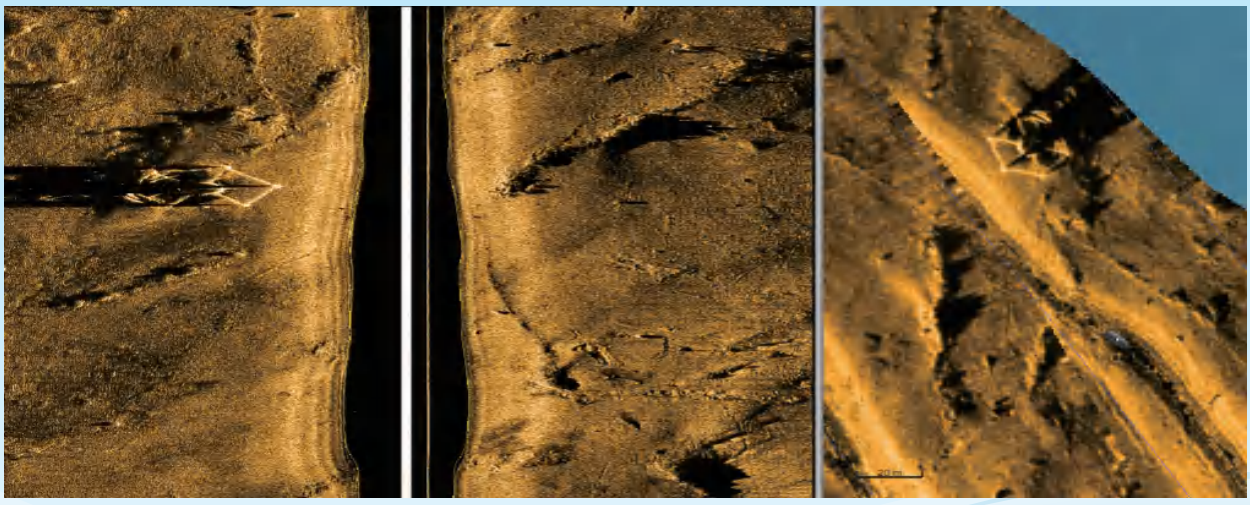
Sonar Specifications	Shark-S100DP
Operating Frequency	100kHz & 400kHz dual-frequency simultaneous operation
Pulse Type	LFM (Chirp) / CW
Maximum Range	600m @100kHz，200m @400kHz
Beamwidth	Horizontal: 0.6° @100kHz, 0.2° @400kHz; Vertical: 50°
Resolution	Along-track resolution: 0.01h (range) @100kHz, 0.003h @400kHz; Across-track resolution: 2.5cm @100kHz; 1.25cm @400kHz
Transducer Mounting Angle	Adjustable downward angles of 10°, 15°, or 20° (factory set to 20°)
Maximum Operating Depth	2000m (Customizable up to 6000 meters)
Standard Built-in Sensors	Single-beam echosounder, attitude sensor (pitch, roll, heading), pressure sensor
Towfish Dimensions / Weight	1283mm(L)×120mm(Dia.) / 50kg (316L stainless steel)
Deck Unit Dimensions / Weight	248mm(L)×192mm(W)×70mm(H) / 1.9kg
Power Supply / Consumption	220/110VAC, 60W
OTech Software	Real-time mosaicking; live online mapping; OTSS and XTF formats recording; SDK development support; continuous raw data output.
Tow Cable	Armored Kevlar cable, 100 meters (customizable); optional winch available
Interface	Ethernet Interface; optional magnetometer interface



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