

Shark-S450S High Resolution Single-Frequency SSS

www.lcsonar.com



Clear Imaging Portable and Easy to Use Exceptional Value Ultra-Low Power Consumption

Shark-S450S Single-Frequency Side Scan Sonar is a compact, lightweight, and portable sonar with ultra-low power consumption. It features 450kHz CHIRP signal processing technology, providing a range of 150 meters per side to ensure wide coverage. With a 0.3° horizontal beamwidth, it delivers high-resolution imaging.

The system consists of a high-pressure resistant stainless steel towfish, a high-strength armored coaxial cable, a waterproof deck unit, and proprietary OTech sonar software. The towfish is engineered for reliability and durability, with optional magnetometer interface and underwater positioning mounting structure. It supports multiple deployment methods, including towing, hull mounting, and side-mount installation. The underwater overload protection design provides effective impact protection, enhancing the towfish's safety during underwater operations.

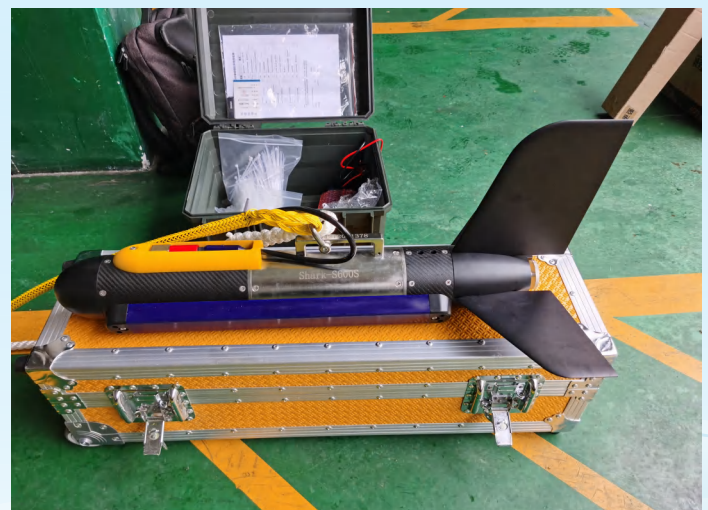
The proprietary OTech software combines ease of use with powerful functionality, offering features such as real-time image mosaic stitching, sonar image waterfall display, survey line planning and navigation, track tracking and coverage display, data recording and playback, target management and export, 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 software can be customized to meet specific requirements. The enhanced version provides real-time output of multiple raw data formats, enabling the development of AI-based automatic target recognition features.

Features

- Lightweight, one-man portable, user-friendly, and reliable
- Supports real-time switching between LFM Chirp signals and Continuous Wave pulses during operation
- Real-time map loading and mosaicking
- OTech's multifunctional software offers free periodic upgrades and updates.

Applications

- Emergency support, police investigation, and firefighting rescue
- Underwater security and hazardous target detection
- Waterway management and obstruction survey
- Marine geology and geophysical survey
- Cable and pipeline route survey and maintenance
- Monitoring of underwater aquaculture



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Sonar Specifications	Shark-S450S
Operating Frequency	450kHz
Pulse Type	LFM (Chirp) / CW
Maximum Range	150m
Beamwidth	Horizontal: 0.3°; Vertical: 50°
Resolution	Along-track resolution: 0.005h (range); Across-track resolution: 1.25cm
Transducer Mounting Angle	Adjustable downward angles of 10°, 15°, or 20° (factory set to 20°)
Maximum Operating Depth	500m
Towfish Dimensions / Weight	767mm(L)×105 mm(Dia.) / 15kg
Deck Unit Dimensions / Weight	227mm(L)×192mm(W)×50mm(H) / 1.9kg
Power Supply / Consumption	220/110VAC, 15W
Tow Cable	Kevlar coaxial cable, 20 m (customizable); optional winch available
OTech Software	Real-time mosaicking; live online mapping; OTSS and XTF formats recording; SDK development support; continuous raw data output.

