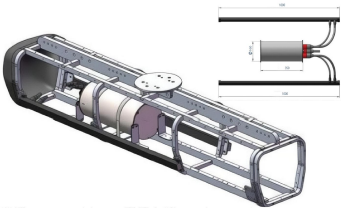


UAC-450S

200m Wide Swath Side Scan Sonar (450kHz)



Overview

UAC-450S Side Scan Sonar is developed to deliver efficient and high-clarity imaging in underwater environments, enabling applications such as side scan sonar, underwater imaging, target detection, positioning, and identification. It can be integrated on towfish, UUV, and other platform carriers, offering clear imagery, stable performance, and easy operation. Designed with maturity and reliability as core principles, the system incorporates low-noise, low-power electronic design, dynamic focusing, and image enhancement technologies.

Technical Specifications

Specification	Parameter
Operating Frequency	Center frequency 450 kHz, bandwidth 30 kHz
Beam Angle	Horizontal 0.2°, vertical 36°
Maximum Detection Range	200 m per side
Image Resolution	6.0 cm × 2.5 cm
Beam Count	Supports 1–20 beam adaptive adjustment at different survey speeds
Communication Interface	100 Mbps / 1 Gbps auto-adaptive Ethernet
Power Supply / Consumption	18–36 VDC, typical power consumption 33 W
Maximum Operating Depth	600 m (customizable)
Maximum Survey Speed	8 kn
Dimensions	Transducer: 1000 mm × 32 mm × 23 mm (per side); Electronics pod: Ø160 mm × 350 mm
Weight	Transducer: 2.1 kg (per side); Electronics pod: 9.2 kg
Environmental Conditions	Operating temperature –10°C to 50°C; Storage temperature –40°C to 70°C
Software Development	Provides GUI software or SDK; supports secondary development
Data Storage	Supports long-duration offline data storage

Key Features

Scan Coverage: Wide swath capability, with a maximum range of up to 200 m per side.

Imaging Principle: Supports high-speed detection and imaging, with survey speeds up to 8 knots.

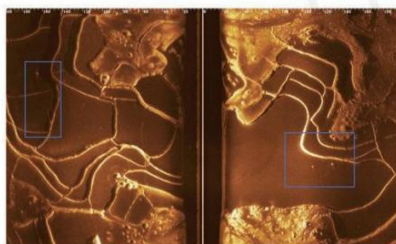
Physical Characteristics: Compact size, low power consumption, and onboard data storage capability.

Technical Support: Compatible with towfish, UUVs, and other deployment platforms.

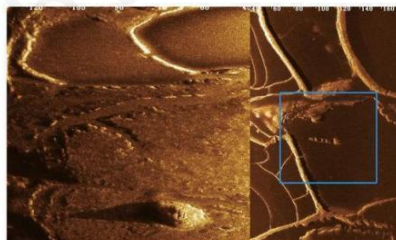
Application

- Marine engineering
- Pipeline and cable route surveys
- Sensitive target detection
- Search and rescue operations

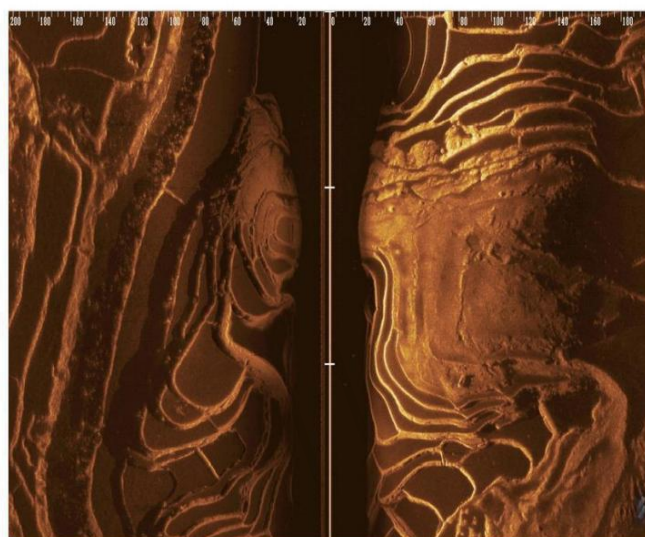
Imaging Images



Detection Targets and Cables of Side-Scan Sonar



Imaging Details of Side-Scan Sonar



Geomorphic Imaging Results of Side-Scan Sonar