

MiniUAC-FLS800D

Dual-Frequency Forward Looking Sonar

Upgraded Version · Sharper Images

850kHz / 1150kHz Imaging Sonar for ROV, AUV & Underwater Survey



Overview

MiniUAC-FLS800D is a high-resolution forward-looking imaging sonar for underwater target search. Powered by upgraded algorithms and built-in image enhancement, it boosts image clarity by 30% to produce crisp underwater images. With switchable 850kHz / 1150kHz dual frequencies, it supports both far-range detection and near-field detailed scanning. Tuned for ROV/AUV obstacle avoidance, subsea inspection and object search, it outperforms many comparable international sonar systems.

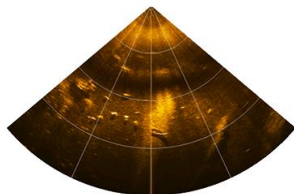
Detailed Features

- 1. Ultra-high Resolution for Minute Detail Capture**
Range resolution up to millimeter level, angular resolution of 0.2°.
- 2. Dual-frequency Switching, Full Coverage for Near & Far Targets**
Real-time switching between low and high frequency to detect every target (850kHz & 1150kHz).
- 3. Proprietary Image Enhancement Technology**
Target-oriented enhancement mode suppresses most background clutter, optimizing single-target detection and automatic target recognition.
- 4. Network External Trigger Support**
Improves acoustic compatibility for AUVs and platforms with multiple acoustic sensors, effectively reducing acoustic interference from co-frequency / harmonic-frequency equipment.
- 5. Extra-wide Detection Coverage**
Horizontal FOV 130°, Vertical FOV 20°, maximum detection range 120m, meeting international standards.
- 6. Adjustable Network Bandwidth**
Freely configurable to fit various mounting platforms & mission scenarios, compatible with platforms using power line carrier.
- 7. Portable Deployment Pole**
Lightweight and easy to assemble.
- 8. Multiple Versions for Variable Depth Operations**
Housing options: Aluminum Alloy / Stainless Steel / Titanium Alloy, suitable for deep-water missions down to 1500 meters.

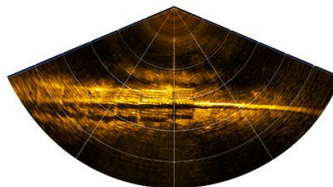
Techinal Specifications

Item	Specification
Operating Frequency	850kHz / 1150kHz
Maximum Range	120m @850kHz / 40m @1150kHz
Minimum Range	0.1m
Range Resolution	3mm
Horizontal Field of View	130° @850kHz / 100° @1150kHz
Vertical Field of View	20°
Angular Resolution	0.25° @850kHz, beam width 1°0.2° @1150kHz, beam width 0.6°
Number of Beams	512
Data Update Rate	Up to 40Hz
Rated Operating Depth	400m / 600m / 1000m
Input Voltage	24V – 36V DC
Average Power Consumption	≤48W
Communication Interface	100Mbps Ethernet
Frequency Control	Online switchable between low and high frequency
Data Output	Water column data, video stream, snapshot images
Built-in Software Functions	Distance measurement, color palette, screenshot, video recording, horizontal/vertical image flip, sonar configuration
Sound Velocity Setting	Manual input; seawater / freshwater mode switch
Synchronization	Network external trigger
Weight	≤1.3kg (in air) / 410g (in water)
Dimension	W125mm × D118mm × H80mm
Housing Material	Aluminum Alloy / Stainless Steel / Titanium Alloy
Mounting	4 × M4 bolts on bottom + 2 × M4 bolts at tail

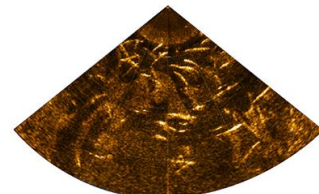
Imaging Image



Underwater Target Search & Detection



Underwater Construction Monitoring



Smart Aquaculture