

# UAC-850F

## Forward-looking Sonar 850kHz



### Overview

The UAC-850F Forward-Looking Sonar utilizes advanced multi-beam imaging technology to provide real-time, high-resolution imaging of suspended targets or obstacles ahead of the sonar. Characterized by its compact form factor and high integration, the system features fully independent and controllable software and hardware. It is ideally suited for navigation safety and target detection on small and medium-sized underwater vehicles.

### Technical Specifications

Specification	Parameter
Operating Frequency	850 kHz (Center), 50 kHz (Bandwidth)
Beam Field of View	90° Horizontal × 18° Vertical
Max Detection Range	≥ 80m (for -15dB targets in favorable conditions)
Range Resolution	≤ 5 cm
Angular Resolution	0.8°
Communication	100M/1000M Adaptive Ethernet
External Sync	RS485
Power Consumption	18-30 VDC, 20W (Typical)
Operating Depth	100m (Customizable on demand)
Dimensions	135 mm × 110 mm × 60 mm
Weight	1.1 kg (5A06 Al-alloy; Neutral buoyancy version available)
Software & Development	Includes Display Software & SDK for secondary development

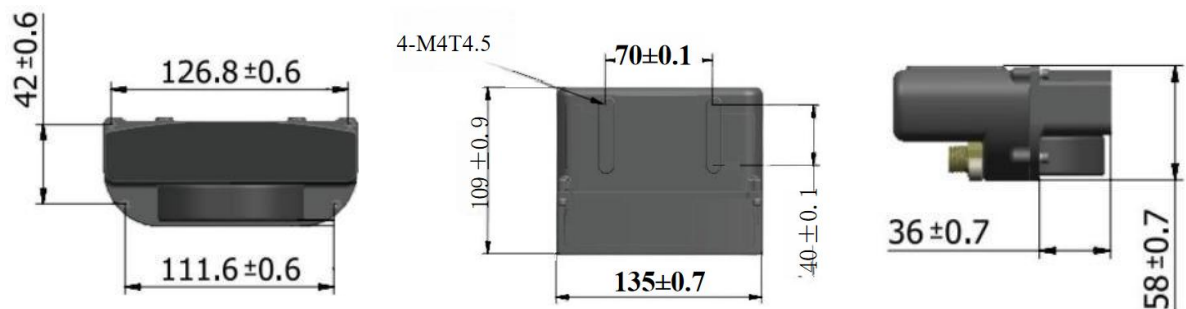
## Key Features

**Imaging Principle:** Multi-beam high-resolution imaging technology.

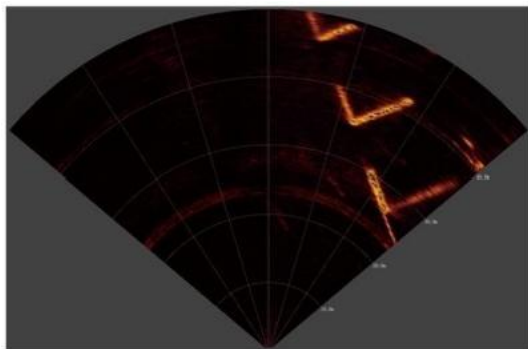
**Compact Design:** Small footprint with highly integrated electronics.

**Intellectual Property:** 100% independently developed with fully domestic components.

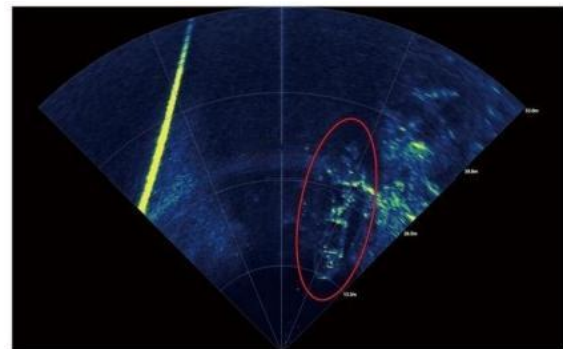
## Structural Dimensions



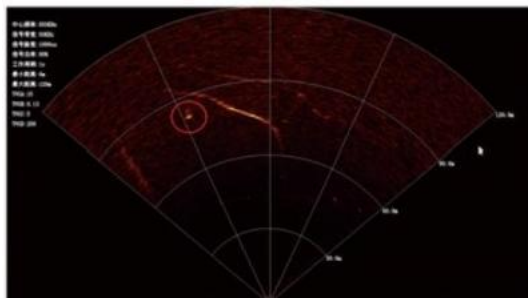
## Imaging Gallery



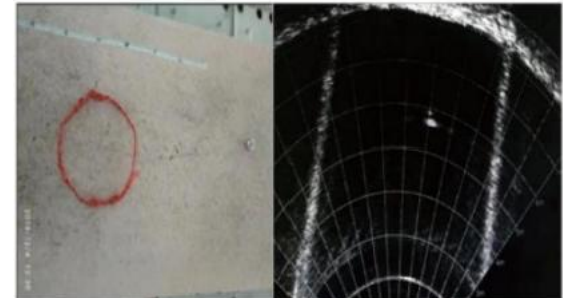
Submerged Bridge Piers



Underwater Shipwrecks



Small Target Detection (-22.5dB)



Tank Test/Pool Imaging