

UAC-500F

Forward-looking Sonar 500kHz



Overview

The UAC-500F forward-looking sonar adopts multi-beam imaging technology to achieve real-time high-resolution imaging of suspended objects or obstacles in the water ahead of the sonar. Boasting a compact size and highly integrated design, the product features fully independent and controllable software and hardware. It is suitable for meeting the navigation support or target detection needs of small and medium-sized underwater vehicles.

Technical Specifications

SPECIFICATIONS	
Operating Frequency	500kHz (center), 30kHz (bandwidth)
Beam Field of View	90° horizontal, 7° vertical
Maximum Detection Range	150m (for -15dB targets under favorable hydrological conditions)
Range Resolution	2.5cm
Angular Resolution	0.8°
Communication Interface	100M/1000M adaptive Ethernet
External Sync Interface	RS485
Power Supply/Power Consumption	18-30VDC, 24W (typical)
Maximum Operating Depth	100m (customizable on demand)
Dimensions	140×208×92.5mm
Weight	2.4kg (5A06 aluminum alloy)
Environmental Adaptability	Operating temperature: -10°C~50°C; Storage temperature: -40°C~70°C
Software Development	Provides display and control software or SDK, supporting secondary development

Key Features

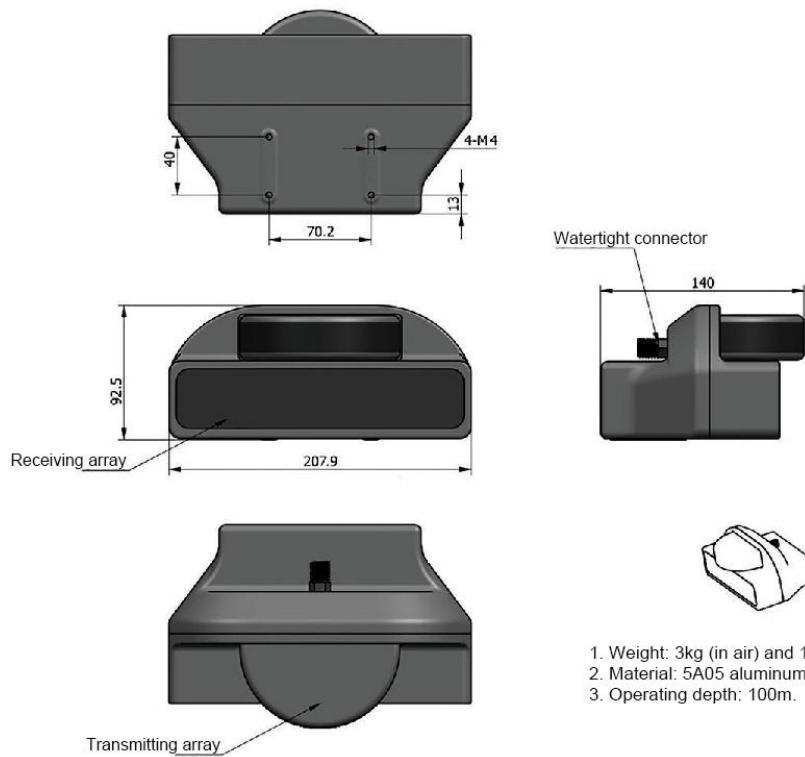
Imaging Principle

Multi-beam High-Resolution Imaging Technology

Compact Size

Compact Size with High Integration Level

Structural Dimensions



1. Weight: 3kg (in air) and 1.5kg (in water);
2. Material: 5A05 aluminum alloy with hard anodizing;
3. Operating depth: 100m.