Ranger

Embedded
Synthetic Aperture Sonar

Marine Sonic Technology

Sea Scan® Ranger

Ultra-High Resolution | Compact & Lightweight | Low Power

The Sea Scan Ranger is a Synthetic Aperture Sonar specifically designed for the small to medium-sized Unmanned Underwater Vehicle (UUV) markets. Ranger delivers high resolution and increased area coverage rates (ACR) at an affordable price. The innovative design makes it the smallest SAS on the market while consuming a fraction of the power of conventional SAS systems. Sea Scan Ranger provides constant 3cm x 3cm resolution with up to a 300m coverage swath. This makes it the ideal sonar for applications that require ultra high-resolution imagery for detecting very small targets on the first survey pass. Where conditions are not optimal for SAS Processing, the Ranger provides a high-resolution dynamic focused real aperture sonar mode.

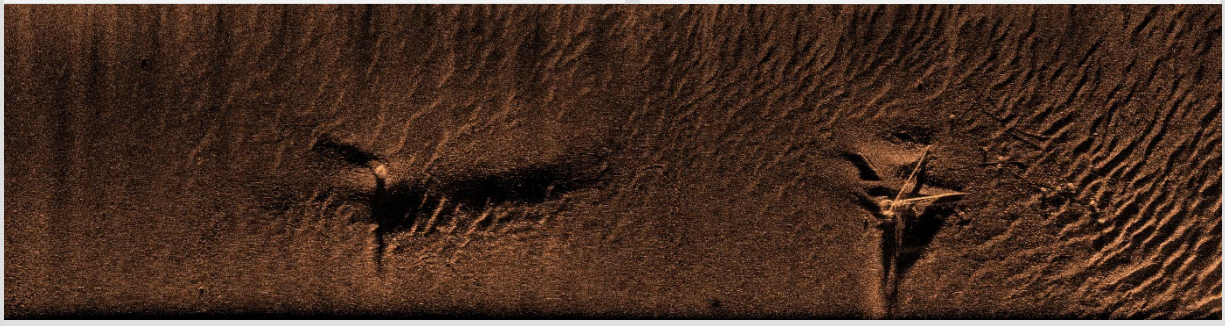
The modular design of the Ranger provides both post mission and real time data processing options with minimal mechanical footprint needed for system integration. The system electronics will easily integrate into nearly all UUV platforms currently on the market. The Sea Scan Ranger supports various navigation sensors and offers internal as well as external data storage. These features combined with Ranger's ruggedized transducers and software development kit reduce your time and effort to integrate the sonar payload. This gets your vehicle in the water faster.

Applications

- Mine Countermeasures (MCM) / Small Object Detection
- Intelligence, Surveillance, and Reconnaissance (ISR)
- Hydrographic / Geophysical / Infrastructure Inspection
- Cable, Pipeline, Archaeological & Biological Surveys

Key Features

- Optimized for small and mid-size AUVs
- Compact, Lightweight, Low Power Consumption
- Internal /External Data Storage
- Modular Array System



MARINE SONIC TECHNOLOGY
A brand of TKMS ATLAS North America

Sea Scan® Ranger

Constant Resolution | Long Range | Great Customer Service

Mechanical Specifications

Transducer Dimensions	94.4cm (L) x 6.9cm (W) x 4.6cm (H) 37.2in (L) x 2.7in (W) x 1.8in (H)
Transducer Weight (per transducer)	3880g / 8.55lbs in air 1470g / 3.24lbs in water
Transmit Electronics Dimensions	12.8cm (L) x 5.9cm (W) x 3.45cm (H) 5.02in (L) x 2.32in (W) x 1.36in (H)
Transmit Electronics Weight	195g / 6.9oz
Online Processing Unit Dimensions	10.2cm (L) x 10.4cm (W) x 3.8cm (H) 4.0in (L) x 4.1in (W) x 1.5in (H)
Online Processing Unit Weight	290g / 10.2oz
Depth Rating	300m / 985ft

Power Consumption

Input Voltage (12 – 30 V DC)	**Active Mode (Total)**
Offline Processing Configuration	26W
Online Processing Configuration	68W

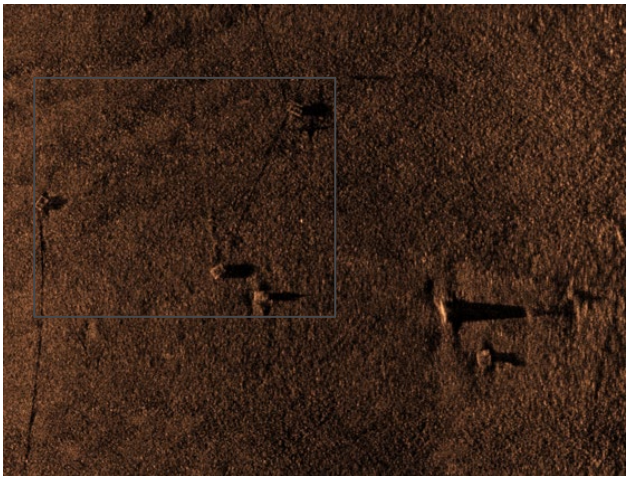
Interface Specifications

Control	10/100 Ethernet, Isolated RS-232 Serial, TTL Sync-In, TTL Sync-Out
Data Storage	External via Ethernet 800GB Internal Storage
File Format	SDX
Navigation Data Input	NMEA – 0183 iXBlue STD BIN V3

Acoustic Specifications

Max Range	150m / 492ft
Max Swath	300m / 985ft
Center Frequency	300kHz
Along Track Resolution	3.0cm
Across Track Resolution	3.0cm
Source Level	207 dB re 1uPa @ 1m
Transmit Pulse Technology	Marine Sonic Technology Adaptive™ CHIRP
Transmit Pulse Bandwidth	35kHz
Transmit Pulse Length	8ms
Data Collection Speed	1 – 6kts
Max Crab Angle	20°

Like all Marine Sonic Technology products, the Ranger comes with the user-friendly and self-explanatory Sea Scan Survey acquisition and review software. Alternately, we offer a Software Development Kit (SDK) which allows vehicle manufacturers and third-party software developers the ability to control the sonar directly, as well as display data.



We Pride ourselves on our Customer Support.

- Free 24hr Tech Support & Software Upgrades
- 3-year limited warranty

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