



ROVer

DUAL FREQUENCY

The two channel ROVer is a self-contained, headless system that is capable of automatic operation and data collection/storage for AUV and ROV applications. The software centric architecture of this echosounder makes it a low power, small footprint, and highly reliable solution for unmanned data acquisition.

Technical Specifications: *(subject to change without notice):*

Available Channels

- Up to 2 channels

Frequency

- All Channels : 24kHz - 210kHz
- (12kHz option available)

Output Power

- Up to 1kW per channel

Input Power

- 12 -30 VDC
- 25 W (quiescent), 40 W (pinging-max), 45W (start-up)

Pulse Length

- Up to 4ms

Gain

- Manual, automatic (AGC), and time varied (TVG)
- 96db range of programmable analog gain

Ranges

- 5, 10, 20, 50, 100, 200, 500, 1000, 2000, 5000

Phasing

- Manual and automatic (up to 50% overlaps)

Units

- Meters, Feet, or Fathoms

Accuracy

- +/-0.1% of depth

Resolution

- 1cm (0-99.99), 1dm (100-999.9), 1m (>1000)
- 1/100ft (0-99.99), 1/10ft (100-999.9), 1ft (>1000)
- 1/100fm (0-99.99), 1/10fm (100-999.9), 1fm (>1000)

Sound Velocity

- 1300 - 1800 m/s Resolution 1m/s
- 4265 - 5906 ft/s Resolution 1ft/s
- 710 - 984 fm/s Resolution 1 fm/s

Draft

- 0-100m Resolution 1cm
- 0-328ft Resolution 0.01ft
- 0-54fm Resolution 0.01fm

Operating Temperature

- 0 - 50°C

Weight & Dimensions

- 3kg
- 292mm x 200mm x 172mm

Sounder Processing

- 16 Bit 200MHz Digital Signal Processor
- 16 Bit 1MSPS Analog to Digital Conversions

Single Board Computer

- Intel Atom Processor, 1.6GHz
- Windows Embedded Operating System
- 1GB DDR SDRAM

Data Storage

- 128GB Solid State Disk
- Over 1000 hours of continuous survey at 5 pings per second

Interfaces

- USB 2.0 Full Speed (12Mbps)
- Gigabit Ethernet
- RS-232 Communication
- VGA Output
- Sync Control

Operational Control and Messaging

- Minimal user control required due to automated nature of system
- UDP messages for sounder status, sounder control, and sensor information
- NTP for time synchronization
- Connect a monitor, keyboard, and mouse for full access to SounderSuite client and server

Output Data

- Full resolution envelope data in KEL binary format
- User configurable ASCII digital depth strings

Additional Features

- SounderSuite Software with client capabilities
- Post Processing Software
- Compatible with industry standard dataloggers and processing software (Hypack, QINSy, SonarWiz)
- Frequency Agility
- Network option for multiple PC operation
- Built in test signal generator