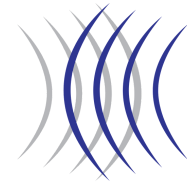
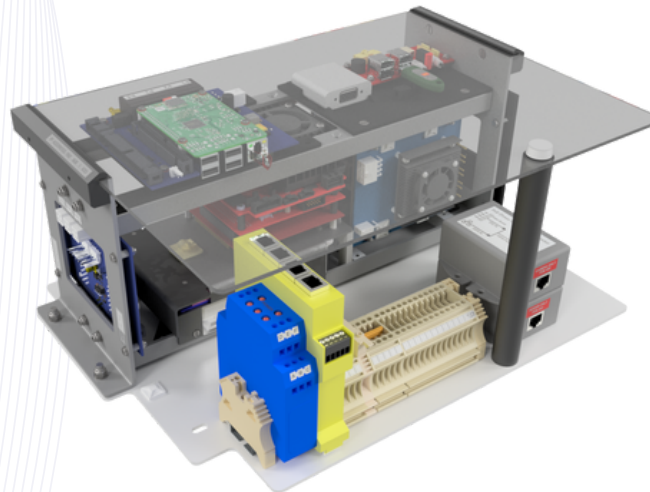


GeoSwath 4 USV Module

GeoSwath Module for simplified installation and operation on any USV



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OVERVIEW

The high-performance GeoSwath 4 USV module for simultaneous swath bathymetry and side scan sonar mapping in shallow waters is easily installed on any compatible USV. It enables efficient inland, coastal, and offshore surveying including areas not accessible by standard survey platforms.

With data accuracies exceeding IHO hydrographic survey standards, GeoSwath 4 USV's transducer head provides a 240° field of view from port to starboard waterline and bottom coverage up to 12 x water depth. With flexible mounting options, the transducers are available in 125, 250 or 500 kHz frequencies, so any survey task can be optimised.

The included GS4 software provides a complete project-based solution for acquisition, storage and editing of sonar and ancillary data, data processing and advanced data gridding capabilities, and side scan mosaicing and 3D data visualisation.

GeoSwath 4 can also be interfaced to third-party software for acquisition and processing.

KEY FEATURES

- Easy USV installation for ultra-high resolution wide swath bathymetry
- 240° field of view to water line
- Bottom coverage up to 12 x depth
- Powerful GS4 software included
- Available in 125, 250 and 500 kHz

APPLICATIONS

- Hydrographic Surveys
- Dredging/Environmental surveys
- Rapid environmental assessment
- Inland waterway/seabed mapping
- Infrastructure inspection
- Ultra-shallow water surveys



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GeoSwath 4 USV Technical Specifications

GeoSwath USV Module	
Physical	386 mm (L) x 124 mm (W) x 174 mm (H) (GeoSwath module only) Weight: 3.4 kg 388mm (L) x 290 mm (W) x 177 mm (H) (including baseplate) Weight: 5 kg
Power	28 W (Windows idle) 35 W (transmitting with transducers only) 65 W (peak power consumption)
Input Voltage	18 – 26 VDC
Sensor Inputs	COM1 (for a GNSS) COM2 (for the MRU) COM3 (via USB, for a Sound Velocity Sensor) COM4 (via USB, for a Battery Voltage Monitor)
Embedded PC	Intel® Dual-core Kaby Lake, 2.8/3.9 GHz, 8GB DDR3L, 1TB SATA3 (6 Gb/s) solid state mSATA module, Microsoft Windows 10 Professional (64 bit)
Environment	Temperature: Operating 0 °C – 40 °C, Storage -20 °C - 70 °C Humidity: Operating Maximum 95% non-condensing, Storage Less than 55%

GeoSwath 4 Transducer	125 kHz	250 kHz	500 kHz
Max Water Depth Below Transducers	200 m	100 m	50 m
Max Swath Width	780 m	390 m	190 m
Max Coverage	Up to 12 x depth	Up to 12 x depth	Up to 12 x depth
Range Resolution	6 mm	3 mm	1.5 mm
Angular Resolution	0.04°	0.04°	0.04°
Two-Way Beam Width (Horizontal)	0.85°	0.75°	0.5°
Max Swath Update Rate	30 per second (simultaneous port and starboard)	30 per second (simultaneous port and starboard)	30 per second (simultaneous port and starboard)
Transducer Head Dimensions	550 mm (L) x 250 mm (W) x 190 mm (H)	468 mm (L) x 165 mm (W) x 125 mm (H)	362 mm (L) x 109 mm (W) x 75 mm (H)
Transducer Head Weight,	18.5 kg	7 kg	2 kg

Specifications subject to change without notice. E&OE

