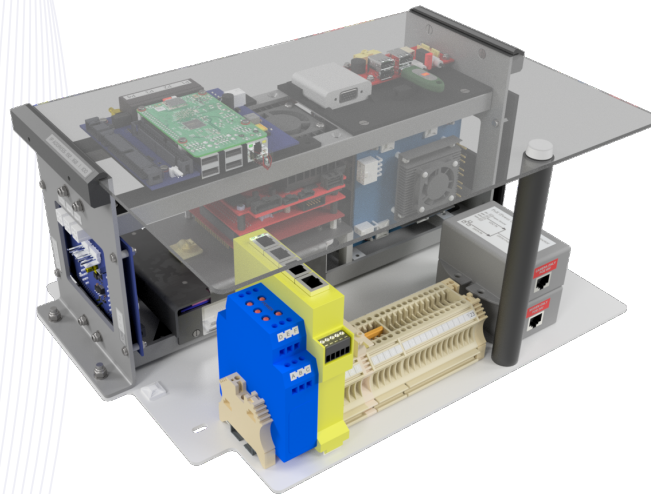


GeoSwath 4 USV Module

AI-Enabled GeoSwath Module for Simplified Installation and Operation on any USV



OVERVIEW

GeoSwath 4 USV provides simultaneous swath bathymetry and side scan sonar mapping and is easily installed on compatible platforms. It enables efficient inland, coastal, and offshore surveying including in hard-to-reach areas accessible by USV.

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, side scan mosaicing, and 3D data visualisation.



GS4 v1.0.25 introduces a hands-free AI data processing system for streaming the seafloor and improved quality control.

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

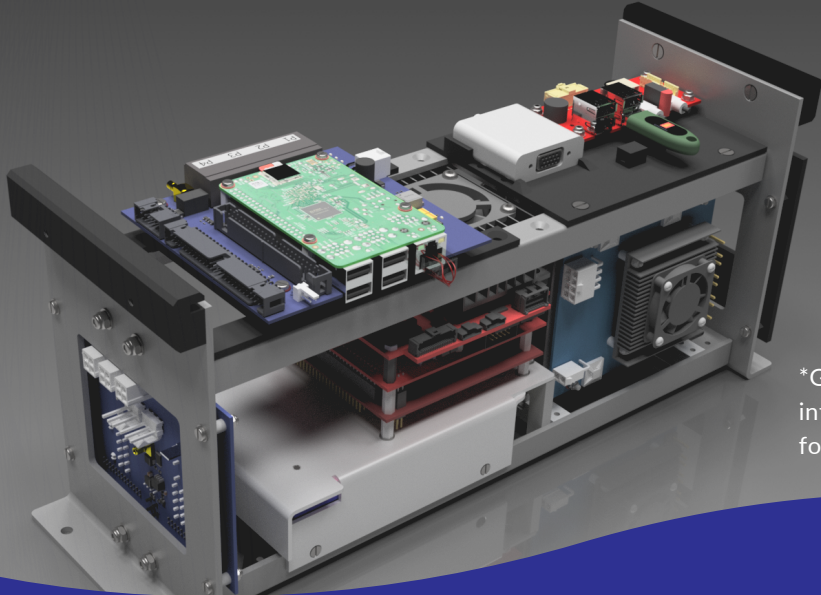
- Hydrographic Surveys
- Dredging/Environmental surveys
- Rapid environmental assessment
- Inland waterway/seabed mapping
- Infrastructure inspection
- Ultra-shallow water surveys

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	30 per second	30 per second
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



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