GeoMB 401

All-in-one multibeam echosounder engineered for performance, reliability, and data integrity



OVERVIEW

GeoMB is a compact multibeam echosounder with integrated auxiliary sensors, delivering dependable, high-resolution bathymetric data.

Operating at 400 kHz, it provides wide swath coverage and excellent vertical resolution, supporting surveys with demanding accuracy requirements.

GeoMB includes integrated Applanix navigation and an SVP, with serial support for third-party GNSS/MRU and SVP. Navigation data can also be output to external software.

Optimised for small survey vessels, vessels of opportunity and USVs, the system combines low power consumption with robust mechanical design.

Integrated beamforming, real-time motion and sound velocity compensation, and seamless interfacing with standard navigation systems ensure reliable performance in dynamic offshore environments.

KEY FEATURES

- Easily transportable multibeam
- High-res 400 kHz bathymetry
- Wide swath seabed coverage
- Integral SVP & Applanix AP+ GNSS/IMU
- External GNSS/IMU/SVP compatible
- Low power, robust design

APPLICATIONS

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

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GeoMB

Technical Specifications

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Working Frequency	400 kHz
Number of Beams	512
Cross Track Beam Width	1°
Along Track Beam Width	2°
Swath Coverage	> 140°
Sounding Depth	0.2-200 m+*
Depth Range	0.75 cm
Max Ping Rate	60 Hz
Sounding Mode	Equiangular/Equidistant
Signal Type	CW/Chirp
Pulse Width	30 µs-8 ms

Software

Compatible with	Hypack, Qinsy, and BeamworX

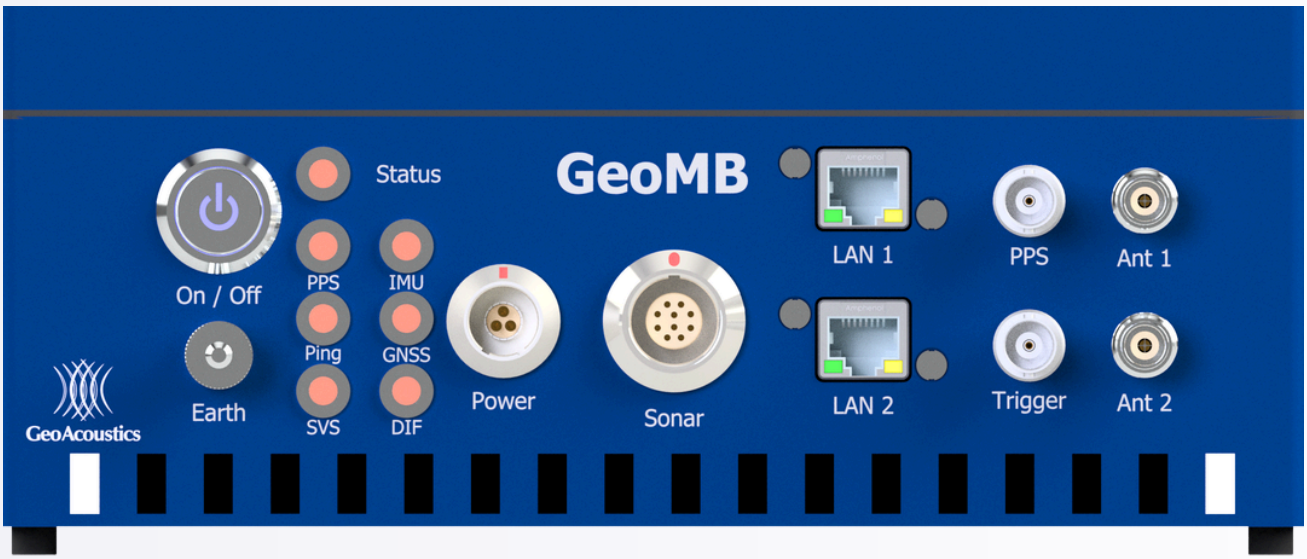
*Depending on environmental conditions **Optional
Specifications subject to change without notice. E&OE

Physical Specifications

Transducer Size	210 x 210 x 150 mm
Transducer Weight	7.5 kg
Deck Unit Size	230 x 152.4 x 92.32
Deck Unit Weight	3 kg
Working Temperature	-2 °C-40 °C
Storage Temperature	-20 °C-55 °C
Power Supply	DC 10-32 V / AC 110-240 V
Power Consumption	70 W

Integrated Auxiliary Sensors

Positioning	0.2 - 2 m (DGPS) / 10 cm (PPP) / 8 mm + 1ppm (RTK)
Attitude	0.03° (RTK) / 0.025° (Post Processing)
Heading	0.06° (4 m Baseline) / 0.08° (2m Baseline)
Heave	5 cm or 5% Range / 2 cm or 2% (TrueHeave)



Suitable for Diverse Platforms

Uncrewed Survey Vessels, Survey Vessels and Vessels of Opportunity