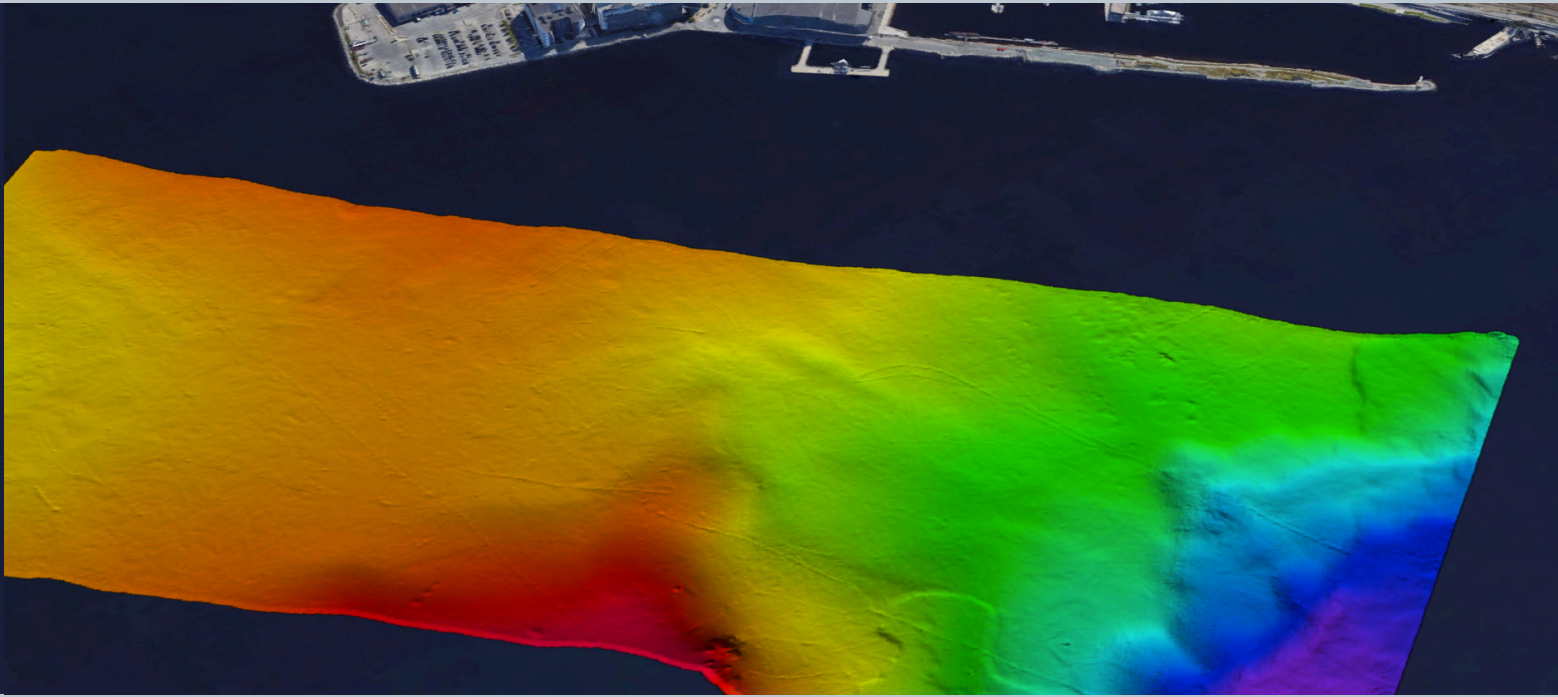




NORBIT WBMS X

Configurable Bathymetric Sonar System



Bathymetric Sonar System with Ultimate Flexibility.

Introducing WBMS X, the latest addition to our innovative multibeam sonar family. This cutting-edge, curved array, ultra-compact system is designed to deliver high-resolution bathymetric data, and can be configured to match your unique survey needs.

Built with flexibility and adaptability in mind, the new modular platform can be customised to fit any operational environment. This multibeam sonar system provides outstanding performance, even in challenging conditions with high vessel motion.

OUTLINE



KEY FEATURES

- High resolution $0.9^{\circ} \times 0.9^{\circ}$
- Ultra Compact
- Customisable
- Active Roll, Pitch and Yaw Stabilisation
- Backscatter Outputs
- <10mm Resolution
- Integrated Field Replaceable Sound Velocity Probe
- Multidetector
- Exceeds IHO Exclusive Order & USACE New Work



Entire sonar system is delivered in a single pelican case

Sonar Specifications - Choose your base model			
Standard		Long Range	
Depth Range	0.2-275m	Depth Range	0.2-600m
Weight	6.6kg (air), 3.2kg (water) excl. bracket 7.4 kg (air), 3.8 kg (water) incl. bracket	Weight	7.4kg (air) 3.8kg (water) excl. bracket 7.9kg (air) 4.2kg (water) incl. bracket
Operating Frequency	Nominal 400 kHz (agility 200–700 kHz)	Operating Frequency	200 kHz & 400 kHz (agility 200–700 kHz)
Resolution (Across x Along)	0.9° x 0.9° @400kHz 0.5° x 0.5° @700kHz	Resolution (Across x Along)	0.9° x 0.9° @400kHz 1.8° x 1.8° @200kHz
Common Sonar Specifications			
Number of Beams	EA & ED: 256, 512, 1024 (option), 2x1024/Dual Swath(option)	Swath Coverage	5-210° flexible sector (Shallow water IHO special order >155°)
Ping Rate	Up to 60Hz, adaptive	Backscatter Outputs	Intensity, Sidescan, Snippets, Water Column
Interface	Ethernet	Depth Resolution	<10mm acoustic w. 80kHz Bandwidth
Environmental	Topside: IP67 compliant	Power Consumption	40W-85W (depending on GNSS system) 10-28VDC, 100-240VAC
Depth Rating	100m	Operating Temperature Storage Temperature	-4°C to +40°C (topside -20°C to +55°C) -20°C to +60°C
OEM GNSS/INS Integration Options			
Applanix	OceanMaster	WaveMaster II	SurfMaster
Position	HOR: ±(8mm +1ppm x Distance from RTK station) VER: ±(15mm +1ppm x Distance from RTK station) (Assumes 1m GNSS separation)	HOR: ±(8mm +1ppm x Distance from RTK station) VER: ±(15mm +1ppm x Distance from RTK station) (Assumes 1m GNSS separation)	HOR: ±(8mm +1ppm x Distance from RTK station) VER: ±(15mm +1ppm x Distance from RTK station) (Assumes 1m GNSS separation)
Heading Accuracy	0.01° with 4m antenna separation	0.015° with 4m antenna separation	0.06° with 4m antenna separation
Pitch/Roll Accuracy	0.01° (RTK) / 0.008° (IAPPK)	0.02° (RTK) / 0.015° (IAPPK)	0.03° (RTK) / 0.025° (IAPPK)
Heave Accuracy	2cm or 2% (TrueHeave™), 5cm or 5% (Real Time)	2cm or 2% (TrueHeave™), 5cm or 5% (Real Time)	2cm or 2% (TrueHeave™), 5cm or 5% (Real Time)
SBG	Ekinox		
Position	HOR: ±(10mm +0.5ppm x Distance from RTK station) VER: ±(15mm +1ppm x Distance from RTK station) (Assumes 1m GNSS separation)		
Heading Accuracy	0.02° with 4m antenna separation		
Pitch/Roll Accuracy	0.015° (RTK) / 0.01° (PPK)		
Heave Accuracy	2cm or 2% (Delayed Heave), 5cm or 5% (Real Time)		
Software Options			
Pitch Stabilisation	Real-time compensation for vessel pitch to ensure even sounding density in dynamic conditions	1024 Beams	Increase sounding density across track
Yaw Stabilisation	Real-time compensation for vessel yaw to ensure even sounding density in dynamic conditions	1.9 deg Version	Opening angles: 0.9° x 1.9° @400kHz
Dual Swath	Doubles survey sounding density along track by transmitting two swaths per ping cycle	STX - Scanning	Rapid electronic transmit beam scanning to combine proven 2D bathymetry into 3D georeferenced bathymetry.
NORBIT Data Collection and visualisation	Data Collection Tool (DCT) and real time 3D Point Cloud visualisation available for INS-integrated systems	Backscattering Strength Output	BSO provides fully repeatable backscatter results, as well as compatibility with physical models for seafloor and habitat classification
3rd Party Data Acquisition & Post Processing	HYPACK, QPS, BeamworX, EIVA, and others		
Hardware Options			
Pole Mount	NORBIT Carbon fibre mounting pole (PORTUS)	Housing	Titanium housing
Cable Length	2m, 8m or 25m (For longer cables, please contact Subsea sales for information)	Fairing	For extra protection and improved flow dynamics
Dual Head	Dual Head option available. Please contact NORBIT Subsea sales for information	Subsea version	Subsea version 1500m depth rated option available for Standard version, without IMU and vehicle speed limited to max 7.2kn.