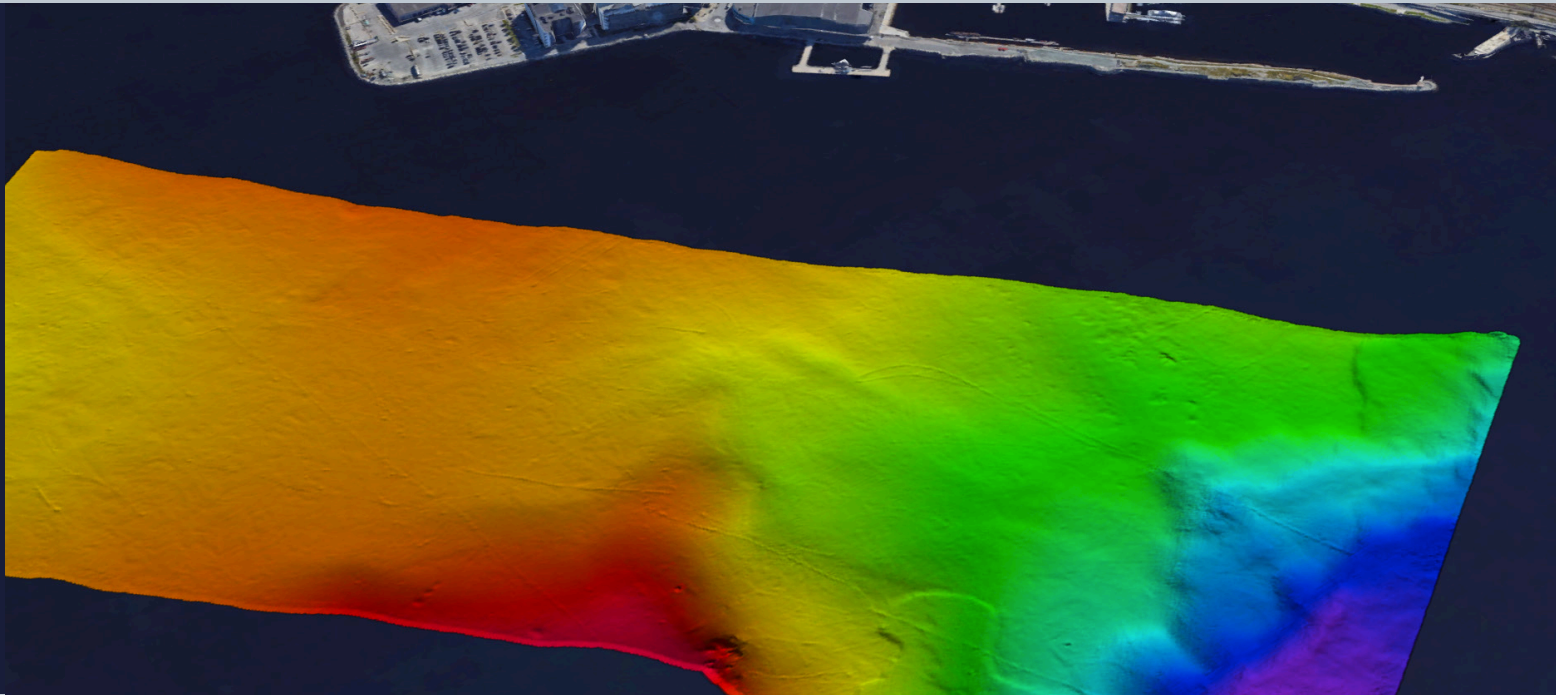




# NORBIT WBMS X

## Configurable Bathymetric Sonar System



### Bathymetric Sonar System with Ultimate Flexibility .

Introducing the 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 x 0.9 deg
- Ultra compact
- Configurable
- Active roll, pitch & yaw-stabilisation
- Backscatter outputs
- <10mm resolution
- Integrated sound velocity probe
- Multidetect
- Exceeds IHO Exclusive Order & USACE New Work



Entire sonar system is delivered in a single pelican case

## Specifications: Integrated and non-integrated

Sonar Specifications			
Operating Frequency	Nominal frequency 400kHz (frequency agility 200-700kHz)	Swath Coverage	5-210° flexible sector (Shallow water IHO special order >155°)
Number of Beams	EA & ED: 256, 512, 1024 (option), 2x1024/DS (option)	Depth Resolution	<10mm acoustic w. 80kHz Bandwidth
Ping Rate	Up to 60Hz, adaptive	Depth Range	0.2-275m (160m typical)
Resolution (Across x Along)	0.9° x 0.9° @400kHz and 0.5° x 0.5° @700kHz	Power Consumption	40W-65W (depending on GNSS system) 10-28VDC, 100-240VAC
Environmental	Topside: IP67: dust tight, protected against the effect of immersion up to 1m	Operating/ Storage Temperature	-4°C to +40°C (topside -20°C to +55°C)/ 20°C to +60°C
Depth Rating	100m	Weight	6,6±0.1kg AIR 3,2±0.1kg (WATER) (depending on GNSS System)
Interface	Ethernet		

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	0.02° (RTK) with 2m antenna separation	0.03° (RTK) with 2m antenna separation	0.08° (RTK) with 2m antenna separation
Pitch/Roll Accuracy	0.01° independent of antenna separation	0.02° independent of antenna separation	0.03° independent of antenna separation
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	0.03° (RTK) dual antenna GNSS (baseline 2m)		
Pitch/Roll Accuracy	0.02° (RTK) independent of antenna separation		
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.
Data Acquisition & Post Processing	HYPACK, QPS, BeamworX, DCT, EIVA, and others	Backscattering Strength Output	BSO provides fully repeatable backscatter results, as well as compatibility with physical models. For seafloor and habitat classification
Pipeline Mode	Optimised transmit pulse settings and beam distribution for pipeline detection		

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	1,500m depth rated option available without IMU and vehicle speed limited to max 7.2kn.