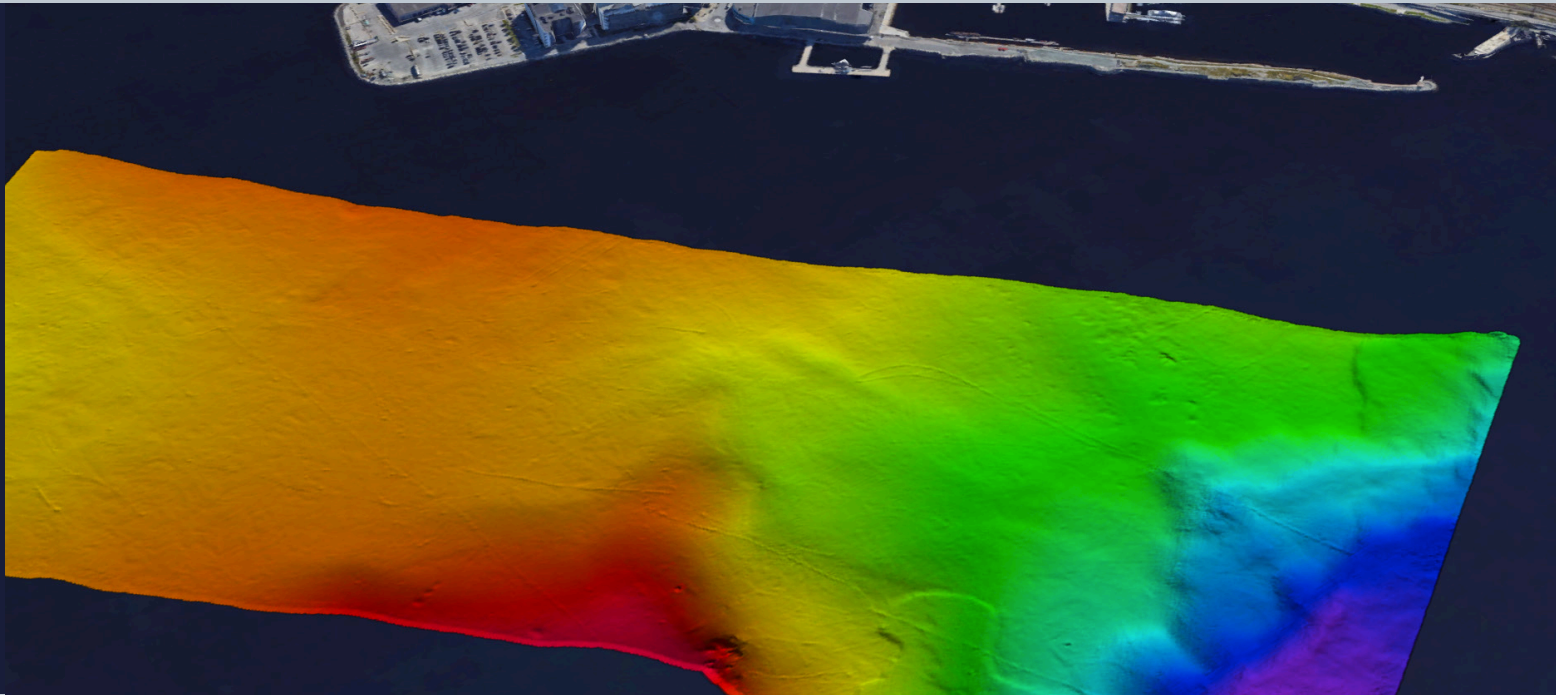




# NORBIT WBMS X

## 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°x 0.9°
- 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

## Specifications: Integrated and non-integrated

Sonar Specifications			
<b>Operating Frequency</b>	Nominal frequency 400kHz (frequency agility 200-700kHz)	<b>Swath Coverage</b>	5-210° flexible sector (Shallow water IHO special order >155°)
<b>Number of Beams</b>	EA & ED: 256, 512, 1024 (option), 2x1024/Dual Swath (option)	<b>Depth Resolution</b>	<10mm acoustic w. 80kHz Bandwidth
<b>Ping Rate</b>	Up to 60Hz, adaptive	<b>Depth Range</b>	0.2-275m (160m typical)
<b>Resolution (Across x Along)</b>	0.9° x 0.9° @400kHz 0.5° x 0.5° @700kHz	<b>Power Consumption</b>	40W-65W (depending on GNSS system) 10-28VDC, 100-240VAC
<b>Environmental</b>	Topside: IP67 compliant	<b>Operating Temperature Storage Temperature</b>	-4°C to +40°C (topside -20°C to +55°C) -20°C to +60°C
<b>Depth Rating</b>	100m	<b>Weight</b>	6.6±0.1kg (air), 3.2±0.1kg (water) (depending on GNSS System)
<b>Interface</b>	Ethernet		
OEM GNSS/INS Integration Options			
Applanix	OceanMaster	WaveMaster II	SurfMaster
<b>Position</b>	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)
<b>Heading Accuracy</b>	0.02° with 2m antenna separation	0.03° with 2m antenna separation	0.08° with 2m antenna separation
<b>Pitch/Roll Accuracy</b>	0.01° independent of antenna separation	0.02° independent of antenna separation	0.03° independent of antenna separation
<b>Heave Accuracy</b>	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		
<b>Position</b>	HOR: ±(10mm +0.5ppm x Distance from RTK station) VER: ±(15mm +1ppm x Distance from RTK station) (Assumes 1m GNSS separation)		
<b>Heading Accuracy</b>	0.03° (RTK) dual antenna GNSS (baseline 2m)		
<b>Pitch/Roll Accuracy</b>	0.02° (RTK) independent of antenna separation		
<b>Heave Accuracy</b>	2cm or 2% (Delayed Heave), 5cm or 5% (Real Time)		
Software Options			
<b>Pitch Stabilisation</b>	Real-time compensation for vessel pitch to ensure even sounding density in dynamic conditions	<b>1024 Beams</b>	Increase sounding density across track
<b>Yaw Stabilisation</b>	Real-time compensation for vessel yaw to ensure even sounding density in dynamic conditions	<b>1.9 deg Version</b>	Opening angles: 0.9° X 1.9°@400kHz
<b>Dual Swath</b>	Doubles survey sounding density along track by transmitting two swaths per ping cycle	<b>STX - Scanning</b>	Rapid electronic transmit beam scanning to combine proven 2D bathymetry into 3D georeferenced bathymetry.
<b>NORBIT Data Acquisition and visualisation</b>	Data Collection Tool (DCT) and real time 3D Point Cloud visualisation available for INS-integrated systems	<b>Backscattering Strength Output</b>	BSO provides fully repeatable backscatter results, as well as compatibility with physical models for seafloor and habitat classification
<b>3rd Party Data Acquisition &amp; Post Processing</b>	HYPACK, QPS, BeamworX, EIVA, and others		
Hardware Options			
<b>Pole Mount</b>	NORBIT Carbon fibre mounting pole (PORTUS).	<b>Housing</b>	Titanium housing
<b>Cable Length</b>	2m, 8m or 25m (For longer cables, please contact Subsea sales for information)	<b>Fairing</b>	For extra protection and improved flow dynamics
<b>Dual Head</b>	Dual Head option available. Please contact NORBIT Subsea sales for information	<b>Subsea version</b>	1500m depth rated option available without IMU and vehicle speed limited to max 7.2kn.