NORBIT - iWBMS
TURNKEY MULTIBEAM SONAR SYSTEM
For High Resolution Bathymetry

Compact and high-resolution curved array bathymetric mapping system by NORBIT.

This all-in-one tightly integrated broadband multibeam turnkey solution offers high resolution bathymetry over a wide swath. The high-end sonar with Applanix WaveMaster II (globally leading GNSS/INS system) embedded into the unit ensures fast and reliable mobilisation and highest quality sounding for surveys in all conditions.

The WBMS-series are based on a flexible sonar platform that utilizes the latest in analogue and digital signal processing. With broad R&D expertise, NORBIT has developed, from the ground-up, exciting new technology that allows existing and new applications to benefit from the advantages offered by a compact wideband curved-array multibeam sonar.

Supported by DCT (Data collection Tool) for data acquisition.

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**Features**

- Multibeam Sonar with Integrated Inertial Navigation System & Integrated NTRIP Client
- 80kHz Bandwidth
- Roll-stabilisation
- Backscatter outputs (Intensity, Sidescan, Sidescan Snippets, Snippets, Water Column)
- Multidetect
- Simple Ethernet Interface
- Integrated Sound Velocity Probe
- Hydrodynamic Fairing
- Mounting Bracket Included
- FM & CW Processing
- Flexible Power
- Exceeds IHO Special Order, CHS Exclusive Order & USACE New Work

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**Applications**

- Shallow Water Bathymetry
- Pipeline Surveys
- Pond, River and Estuary Surveys
- Harbor and Lake Surveys
- Unmanned Surface Applications (AUV or ASV)
- Coastal Surveys

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**Options**

- Sound Velocity Profiler
- Data Collection Tool (DCT)
- Turnkey Survey Solutions
- Permanent Hull Mount Option
- Pole Mount and Travel Option
- 200kHz Version
- Backscattering Strength Output
- Narrow Beam Option
- High-end INS
- Acquisition, Navigation and Post Processing Software
- Senior Hydrographer for Support and Training
- Can be Delivered with Software Packages e.g. DCT, HYPACK, Qinsy, EIVA, CARIS and Others

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**EXPERTS in sensor equipment providing telemetry and communication solutions for harsh environments. NORBIT develops and delivers innovative products - allowing you to explore more.**

**www.norbit.com**
NORBIT iWBMS Wideband Multibeam Sonar
For High Resolution Bathymetry

TECHNICAL SPECIFICATION

<table>
<thead>
<tr>
<th>规格</th>
<th>说明</th>
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<tbody>
<tr>
<td>SWATH COVERAGE</td>
<td>5-210° FLEXIBLE SECTOR (SHALLOW WATER IHO SPECIAL ORDER &gt;155°)</td>
</tr>
<tr>
<td>RANGE RESOLUTION</td>
<td>&lt;10mm ACOUSTIC w. 80kHz BANDWIDTH</td>
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<tr>
<td>NUMBER OF BEAMS</td>
<td>256-512 EA &amp; ED</td>
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<tr>
<td>OPERATING FREQUENCY</td>
<td>NOMINAL FREQUENCY 400kHz (FREQUENCY AGILITY 200-700kHz)</td>
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<tr>
<td>DEPTH RANGE</td>
<td>0.2-275m (&gt;300m WITH 0.9° X 0.9° OPTION)</td>
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<tr>
<td>PING RATE</td>
<td>UP TO 60Hz, ADAPTIVE</td>
</tr>
<tr>
<td>RESOLUTION (ACROSS X ALONG)</td>
<td>STANDARD: 0.9° X 1.9° @400kHz AND 0.5° X 1.0° @700kHz, NARROW OPTION: 0.9° X 0.9° @400kHz AND 0.5° X 0.5° @700kHz</td>
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<tr>
<td>POSITION</td>
<td>HORIZON: ±(8mm +1ppm X DISTANCE FROM RTK STATION), VER: ±(15mm +1ppm X DISTANCE FROM RTK STATION) (ASSUMES 1m GNSS SEPARATION)</td>
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<tr>
<td>HEADING ACCURACY</td>
<td>0.03° (RTK) WITH 2m ANTENNA SEPARATION</td>
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<tr>
<td>PITCH/Roll ACCURACY</td>
<td>0.02° INDEPENDENT OF ANTENNA SEPARATION</td>
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<tr>
<td>HEAVE ACCURACY</td>
<td>2 cm OR 2% (TRUEHEAVETm), 5 cm OR 5% (REAL TIME)</td>
</tr>
<tr>
<td>WEIGHT</td>
<td>8.5kg (AIR) 3.5kg (WATER)</td>
</tr>
<tr>
<td>INTERFACE</td>
<td>ETHERNET</td>
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<tr>
<td>CABLE LENGTH</td>
<td>STD 8m, OPT: 2m, 25m AND 50m</td>
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<tr>
<td>POWER CONSUMPTION</td>
<td>60W (10-28VDC, 110-240VAC)</td>
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<tr>
<td>OPERATING TEMP.</td>
<td>-4°C TO +40°C (TOPSIDE) -20°C TO +55°C</td>
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<tr>
<td>STORAGE TEMP.</td>
<td>-20°C TO +60°C</td>
</tr>
<tr>
<td>ENVIRONMENTAL</td>
<td>TOPSIDE: IP67: DUST TIGHT, PROTECTED AGAINST THE EFFECT OF IMMERSION UP TO 1m WET-END (SONAR): 100m</td>
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Part #12004-AACDB4