NORBIT - iWBMS$h$-Dual Head
TURNKEY MULTIBEAM SONAR SYSTEM
For High Resolution Bathymetry

Compact and high-resolution Dual head 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 globally leading GNSS/Inertial Navigation System (Applanix OceanMaster) embedded into the unit ensures fast and reliable mobilisation and highest quality sounding for installations in all conditions.

The WBMS-series are based on a flexible sonar platform that utilises 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.

<table>
<thead>
<tr>
<th>Features</th>
<th>Applications</th>
<th>Options</th>
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</thead>
<tbody>
<tr>
<td>✓ Multibeam Sonar with Integrated Inertial Navigation System &amp; Integrated NTRIP Client.</td>
<td>✓ Shallow Water Bathymetry</td>
<td>✓ Senior Hydrographer For Support and Training</td>
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<td>✓ 80kHz Bandwidth</td>
<td>✓ Pipeline Surveys</td>
<td>✓ Sound Velocity Profiler</td>
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<td>✓ Roll-stabilisation</td>
<td>✓ Pond, River and Estuary Surveys</td>
<td>✓ Laptop</td>
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<tr>
<td>✓ Backscatter outputs (Intensity, Sidescan, Sidescan Snippets, Snippets, Water Column)</td>
<td>✓ Harbor and Lake Surveys</td>
<td>✓ Turnkey Survey Solutions</td>
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<td>✓ Multidetect</td>
<td>✓ USV &amp; UUV</td>
<td>✓ Permanent Hull Mount Option</td>
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<tr>
<td>✓ Simple Ethernet Interface</td>
<td>✓ Open Ocean Surveys</td>
<td>✓ Pole Mount Option</td>
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<tr>
<td>✓ Integrated Sound Velocity Probe</td>
<td>✓ USV &amp; UUV</td>
<td>✓ 200kHz Version</td>
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<tr>
<td>✓ Hydrodynamic Fairing</td>
<td>✓ Narrow Beam Along Track 0.9°</td>
<td>✓ Pole Mount Option</td>
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<tr>
<td>✓ FM &amp; CW Processing</td>
<td>✓ Top-end INS (Roll, Pitch &amp; Heading 0.01degree)</td>
<td>✓ 200kHz Version</td>
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<tr>
<td>✓ Flexible Power</td>
<td>✓ Entry level INS</td>
<td>✓ Narrow Beam Along Track 0.9°</td>
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<tr>
<td>✓ Exceeds IHO Special Order, CHS Exclusive Order &amp; USACE New Work</td>
<td>✓ Acquisition, Navigation and Post Processing Software</td>
<td>✓ Top-end INS (Roll, Pitch &amp; Heading 0.01degree)</td>
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<td>✓ Can be Delivered with all Major Software Packages e.g. HYPACK, QINSy, EIVA, CARIS and Others</td>
<td>✓ Entry level INS</td>
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</tbody>
</table>

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
NORBİT iWBMSh Wideband Multibeam Sonar
For High Resolution Bathymetry

TECHNICAL SPECIFICATION

SWATH COVERAGE
5-210° FLEXIBLE SECTOR
(SHALLOW WATER IHO SPECIAL ORDER >155°)

RANGE RESOLUTION
<10mm (ACOUSTIC W. 80kHz BANDWIDTH)

NUMBER OF BEAMS
512-1024 EA & ED

OPERATING FREQUENCY
NOMINAL FREQUENCY 400kHz
(FREQUENCY AGILITY 200-700kHz)

DEPTH RANGE
0.2-275m (160m TYPICAL @400kHz)

PING RATE
UP TO 60Hz, ADAPTIVE

RESOLUTION
STANDARD: 0.9° X 1.9° @400kHz AND 0.5° X 1.0° @700kHz,
NARROW OPTION: 0.9° X 0.9° X 400kHz AND 0.5° X 0.5° @700kHz

POSITION
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

PITCH/ROLL ACCURACY
0.01° INDEPENDENT OF ANTENNA SEPARATION

HEAVE ACCURACY
2 cm OR 2% (TRUEHEAVE™), 5 cm OR 5% (REAL TIME)

WEIGHT
APPROX. 15kg (AIR) LESS THAN 9.5kg (WATER)

INTERFACE
ETHERNET

CABLE LENGTH
STD. 8m, OPT: 2m, 25m AND 50m

POWER CONSUMPTION
100W (10-28VDC, 110-240VAC)

OPERATING TEMP.
-4°C to +40°C (TOPSIDE -20°C to +55°C)

STORAGE TEMP.
-20°C to +60°C

ENVIRONMENTAL
TOPSIDE: IP67: DUST TIGHT, PROTECTED AGAINST THE EFFECT
OF IMMERSION UP TO 1m/WET-END: 100m

Note: Sonar dimensions may vary depending on configuration.