NORBIT - iWBMSc (COMPACT)
WIDEBAND MULTIBEAM SONAR
With Tightly Integrated INS

Ultra compact and high-resolution curved array bathymetric system from NORBIT.

The 400kHz integrated multibeam solution offers high resolution in conjunction with the smallest possible tightly coupled INS/GNSS solution inertial navigation system for the most compact high resolution multibeam system. Having the inertial navigation system integrated into the sonar, ensures fast and reliable mobilisation.

The WBMS-series are based on a flexible sonar platform that utilises the latest in analogue and digital signal processing, and features a curved array. 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.

---

**Features**
- Multibeam Sonar Integrated with IMU and GPS
- State of the Art GNSS-aided Inertial Navigation System
- 80kHz Bandwidth
- Simple Ethernet Interface
- Integrated Sound Velocity Probe
- FM & CW Transmissions
- Backscatter outputs (Intensity, Sidescan, Sidescan Snippets, Snippets, Water Column)
- Exceeds IHO Special Order, CHS Exclusive Order & USACE New Work

**Applications**
- Shallow Water Bathymetry
- Pipeline Surveys
- River, Estuary and Pond Surveys
- Harbor and Lake Surveys
- USV & UUV

**Options**
- Sound Velocity Profiler
- Turn-Key Survey Platform
- Laptop
- Permanent Hull Mount Option
- Pole Mount
- 200kHz Version
- Narrow Beam Option
- Acquisition, Navigation and Post Processing Software
- Senior Hydrographer for Support and Training
- Can be Delivered with all Major Software Packages e.g. HYPACK, Qinsy, EIVA, CARIS and Others

---

NORBIT develops and delivers innovative products - allowing you to explore more.

www.norbit.com
## Technical Specifications

### Swath Coverage
5-210° Flexible Sector
(Shallow Water IHO Special Order >155°)

### Range Resolution
<10mm (Acoustic w. 80kHz Bandwidth)

### Number of Beams
256-512 EA & ED

### Operating Frequency
Nominal Frequency: 400kHz
(Frequency Agility: 200-700kHz)

### Depth Range
0.2-275m (160m Typical @ 400kHz)
 (>300m with 0.9° x 0.9° option)

### Ping Rate
Up to 60Hz, Adaptive

### Resolution (Across x Along)
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

### Position Accuracy
0.02-0.1m (RTK)

### Heading Resolution
0.03° (RTK) Long Baseline PP (0.08° Short Baseline)

### Pitch/Roll Accuracy
0.02° Independent on Baseline

### Heave Accuracy
2 cm or 2% (TRUEHEAVETM), 5 cm or 5% (Real Time)

### Weight
Approx 8kg (Air), 5kg (Water)

### Interface
100Mb/s ETHERNET

### Standard Cable Length
STD 8m, Options: 2m, 25m, 50m

### Power Consumption
45W (65W MAX) (10-28VDC, 110-240VAC)

### Operating Temp.
-4°C to +40°C (Topside; -25°C to +40°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

---

**Part #12005-AACDB4**

---

**COPYRIGHT © 2010 NORBIT, ALL RIGHTS RESERVED. WHILE EVERY EFFORT IS MADE TO ENSURE THE INFORMATION GIVEN IS ACCURATE, NORBIT DOES NOT ACCEPT LIABILITY FOR ANY ERRORS OR OMISSIONS, ALL NON-METRIC WEIGHTS AND MEASURES ARE APPROXIMATE AND OTHER INFORMATION IN THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE.**