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 mobilization and highest quality sounding for surveys in all conditions.

The WBMS-series are based on a flexible sonar platform that utilizes the latest in analog 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.

Supports DCT (Data collection Tool) for bathymetric survey.

Features
- State-Of-The-Art Curved Array Multibeam Sonar Tightly Integrated with High-end GNSS-aided Inertial Navigation System (Applanix WaveMaster II)
- 80kHz Bandwidth
- Roll-stabilisation, Side-scan, Water Column, Backscatter, Snippets and Multidetect
- Simple Ethernet Interface
- Integrated NTRIP Client
- Integrated Sound Velocity Probe
- Hydrodynamic Fairing
- Mounting Bracket Included
- FM & CW Processing
- Flexible Power
- Exceeds IHO Special Order, CHS Exclusive Order & USACE New Work

Applications
- Shallow Water Bathymetry
- Pipeline Surveys
- Pond, River and Estuary Surveys
- Harbor and Lake Surveys
- USV & UUV
- MCM & Littoral Combat Zone Surveys
- Open Ocean Coastal Surveys

Options
- Senior Hydrographer For Support and Training
- Sound Velocity Profiler
- Data Collection Tool (DCT)
- Turnkey Survey Solutions
- Permanent Hull Mount Option
- Pole Mount and Travel Option
- 200kHz Version
- Narrow Beam Option
- Top-end INS (Roll, Pitch & Heading 0.01degree)
- Entry level INS
- Acquisition, Navigation and Post Processing Software
- Can be Delivered with Software Packages e.g. DCT, HYPACK, QINSy, EIVA, CARIS and Others

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
TECHNICAL SPECIFICATION

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 (>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: HOR: ±(8mm +1ppm X DISTANCE FROM RTK STATION)
VER: ±15mm +1ppm X DISTANCE FROM RTK STATION)
(ASSUMES 1m GNSS SEPARATION)

HEADING ACCURACY: 0.03° (RTK) WITH 2m ANTENNA SEPARATION

PITCH/ROLL ACCURACY: 0.02° INDEPENDENT OF ANTENNA SEPARATION

HEAVE ACCURACY: 2 CM OR 2% (TRUEHEAVETM), 5 CM OR 5% (REAL TIME)

WEIGHT: APPROX. 9.5kg (AIR) LESS THAN 6kg (WATER)

INTERFACE: ETHERNET

CABLE LENGTH: STD8M, OPT: 2m, 25m AND 50m

POWER CONSUMPTION: 60W (75W MAX) (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

Part #12004