The Kongsberg Mesotech M3 Sonar® is a multibeam system with both imaging and profiling capabilities. The M3 Sonar® provides high-resolution and easy to interpret images by combining the rapid refresh rate of a conventional multibeam sonar with image quality comparable to a single-beam sonar.

Detection of small objects out to 150 meters combined with a 120° to 140° field of view allows the operator to see the complete underwater picture in real-time.

**APPLICATIONS**

- Marine Engineering
- Shallow Water Bathymetric Surveying
- Site Inspection
- Environmental Monitoring
- Site Clearance
- Defense and Security

**M3 SOFTWARE**

The M3 Software was developed specifically for the M3 Sonar® to manage communications with the head and operate all beam-forming and imaging processing.

**Four Pre-Defined Operating Modes:**

1. **Imaging**: long range navigation with high speed update rate
2. **Enhanced Image Quality (eIQ)**: greatest image quality (0.95° angular resolution) from a short range with a slower update
3. **ROV Navigation**: selects eIQ or imaging based on range
4. **Profiling**: narrow 3° beam used to generate a 3D point cloud
TECHNICAL SPECIFICATION

Sonar Specifications
Range: 0.2m to 150m
Range Resolution: 1cm
Frequency: 500 kHz
Pulse Types: CW, CHIRP
Modes: Variable Vertical Beamwidth, eIQ

Imaging Mode
Horizontal Field of View: 120°
Vertical Beamwidth: 3°, 7°, 15°, 30°
Angular Resolution: 1.6°
Update Rate: up to 40 Hz

eIQ Imaging Mode
Horizontal Field of View: 140°
Vertical Beamwidth: 30°
Angular Resolution: 0.95°
Update Rate: up to 10 Hz

Profiling Mode
Horizontal Field of View: 120°
Vertical Beamwidth: 3°
Number of Beams: 256
Update Rate: up to 40 Hz

Shock and Vibration
Shock Qualified: +/-50gs, 3 Axes, 6 shocks per axis
Vibration Qualified: 4g, 30Hz 3 Axes, 2 hours per axis.
No resonance below 800Hz

Environmental Specifications
Temperature
Operation: -2°C to +38°C
Storage: -40°C to +55°C

Shock and Vibration
Shock Qualified: +/-50gs, 3 Axes, 6 shocks per axis
Vibration Qualified: 4g, 30Hz 3 Axes, 2 hours per axis.
No resonance below 800Hz

Interface Specifications
Operating System: Windows 7 Professional SP1 or Windows XP Professional SP3
Communication: Ethernet, VDSL
Data Rates: Ethernet: 10/100 Mbps
VDSL: up to 100 Mbps
Input Voltage: 12 to 36 VDC
Input Power: 22W (avg.), peak power < 60W, mode dependant

Mechanical Specifications
Dimensions: (see diagram below)
Weight in Air: 4.7kg
Weight in Water: 1.8kg
Depth Rating: 500m
Connector Type: SEA CON®
Connector Model: MINK-10-FCRL
(Ethernet/VDSL/Power)
Materials: Hard Anodized Aluminum, Stainless Steel 316, Elastomeric Polyurethane

Specifications subject to change without any further notice.

DIMENSION ARE IN INCHES

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