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

**INSTALLATION OPTIONS**
- Pole mount on a surface vessel
- Suitable for a wide range of vehicles from large work-class ROVs to small observation class ROVs
- Tripod mounted

**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
**Sonar Specifications**

Range: 0.2m to 150m  
Range Resolution: 1cm  
Frequency: 500 kHz  
Pulse Types: CW, CHIRP  
Modes: Imaging, eIQ Imaging and Profiling

**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

**Interface Specifications**

Communication: Ethernet  
Data Rates: 10/100/1000 Mbps  
Input Voltage: 12 to 36 VDC  
Input Power: 22W (avg.), peak power < 60W, mode dependant  
Operating System: Windows 7 Professional SP1 or Windows XP Professional SP3

**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

**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  
MIND-4-FCR  
Materials: Hard Anodized Aluminum, Stainless Steel 316, Elastomeric Polyurethane

**Interface Specifications**

Communication: Ethernet  
Data Rates: 10/100/1000 Mbps  
Input Voltage: 12 to 36 VDC  
Input Power: 22W (avg.), peak power < 60W, mode dependant  
Operating System: Windows 7 Professional SP1 or Windows XP Professional SP3

**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

**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  
MIND-4-FCR  
Materials: Hard Anodized Aluminum, Stainless Steel 316, Elastomeric Polyurethane

---

Specifications subject to change without any further notice.