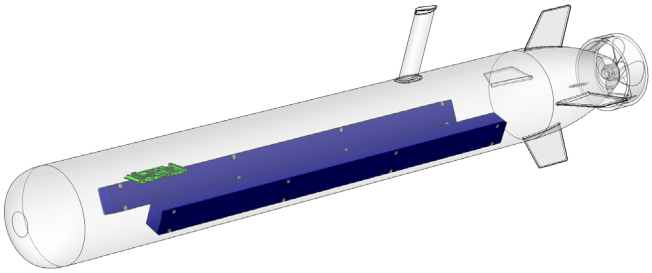
KLEIN MARINE SYSTEMS



KLEIN MANTIS UUV

Next Generation Integrated Side Scan Sonar

Klein MANTIS UUV offers Klein's multibeam side scan sonar technology with onboard processing for high-quality imagery at higher speeds and in demanding motion environments. It is designed for streamlined vehicle integration, mission efficiency, and high-confidence target identification.

Preliminary Specifications*	
Technology	• Multibeam side scan sonar processing • Onboard processing in real-time • Designed for ease of UUV integration
Frequency	• 600 kHz (baseline) / 720 kHz / 850 kHz
Maximum Range (Per Side)	• 150 m @ 600 kHz • 100 m @ 720 kHz • 75 m @ 850 kHz
Performance **Feature:** • Max operating depth: • Supply voltage: • Power usage: • Interfaces: • Data output: • Center frequency: • Across-track resolution: • Along-track resolution: • Horizontal beamwidth: • Max range: • Max operational speed: • Onboard processing:	(600 kHz configuration) **Value:** 1000 m 12–48 VDC 25 W average 1 Gbps Ethernet + hardware trigger in/out SDF 600 kHz 1.2 cm 5.5cm / 25m, 11cm / 50m, 16.5cm / 75m, 27cm / 120m 0.125° 120/150 m per side (300 m total swath) Min / Max: 2 / 8 knots Multi-beam, wide-band, side scan sonar processing
Mechanical	• Overall length: ~1.3 m • Installation: vehicle-integrated module (envelope and mounting configuration dependent on platform)
Depth Rating	300 m (for baseline configuration)
Vehicle Operation	• Max operational speed: 8 knots at all ranges for Max ACR, no compromises
Data & Integration	• **Integration:** Ethernet-based data output with documented interface for straightforward integration and downstream processing workflows. • **Data format:** Final supported output formats will be confirmed during final release.
Navigation / Motion	• No vehicle attitude sensor integration required.
Vehicle Dependencies	• Power, control, data interfaces • Ethernet communication

Applications:
High-speed survey missions where coverage rate and image clarity matter.
• Mine Countermeasures (MCM)
• Search & Recovery (SAR)
• Hydrographic / Geophysical Survey
• Offshore Infrastructure Inspection (pipelines, cables, foundations)
• Route Survey and Seabed Characterization
• Environmental and Habitat Mapping

Key Features:
• Multibeam side scan sonar technology with onboard processing
• High-speed operation up to **8 knots**
• Motion-tolerant performance for dynamic UUV conditions
• Ethernet data interface for streamlined vehicle integration

Note: Final specifications may vary by configuration and vehicle integration requirements.

*Specifications subject to change

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