



MultiPulse Side Scan Sonar System



"The industry's first affordable high speed, high resolution, side scan sonar system."

The **EdgeTech MP-X MultiPulse Side Scan Sonar** represents a ground-breaking advancement in side scan sonars.

Conventional side scan sonars have always been defined by the limitation of having only one ping in the water at a time. Typically this has kept the speed of survey below 5 knots to ensure 100% coverage. Until now, the only method for conducting faster surveys has been multibeam side scans – products that are severely limited by cost and complexity.

Innovation and Simplicity

Based on EdgeTech's Full Spectrum Frequency Modulated (FM) pulses, the MP-X uses proprietary signal coding to place up to 4 pulses in the water at the same time. This translates into a **4 times** increase in survey speeds while still maintaining 100% bottom coverage or a **4 times** increase in hits on the target for improved imaging at standard survey speeds. All of this with the simplicity and cost of a conventional single beam side scan system!

Improved Resolution

To improve resolution at range, EdgeTech has developed Dynamic Aperture Processing™ (DAP) for use on the MP-X. DAP reduces beam width at the maximum range of the sonar by over 40%, thus increasing the range at which a 1 meter target can be typically detected by over 60%.

Discover the Difference!

Features:

- High speed data collection at up to 16 knots
- Enhanced resolution at range using Dynamic Aperture Processing™ (DAP)
- Flexible system design allows for operation from shallow water to full ocean depth

Applications:

- Hydrographic surveys
- Geophysical surveys
- Cable and pipeline surveys
- Search and recovery
- Mine counter measure surveys
- Site selection surveys, pre-/post dredging surveys



MPX MultiPulse Side Scan Sonar



Tow Vehicle

| | | |
|--|--|--|
| Frequency: | 270 kHz | 410 kHz |
| Pulse Type: | Full Spectrum FM | Full Spectrum FM |
| No. of Pulses: | 4 | 4 |
| Towing Speed @ 100 M Range Scale: ¹ | up to 8 / 16 knots | up to 8 / 16 knots |
| Maximum Operating Range: | 225 meters per side (450 meter swath) | 115 meters per side (230 meter swath) |
| Maximum Operating Depth: ² | 300 meters | 300 meters |
| Pulse Repetition Rate: | 14 / 28 @ 100 meters | 14 / 28 @ 100 meters |
| Horizontal Beam Width: | 0.75 M @ 100 meters 1.25 M @ 200 meters | 0.35 M @ 50 meters 0.5 M @ 100 meters |
| Resolution Across Track: | 0.075 / 0.15 meters | 0.05 / .03 meters |
| Towfish TVG: | none required | none required |
| Physical: | Length: (L) 173 cm x (H) 37 cm | (L) 173 cm x (H) 37 cm |
| | Diameter: 19 cm | 19 cm |
| | Weight (in air): 60 kg | 60 kg |
| | Weight (in water): 20 kg | 20 kg |

Telemetry

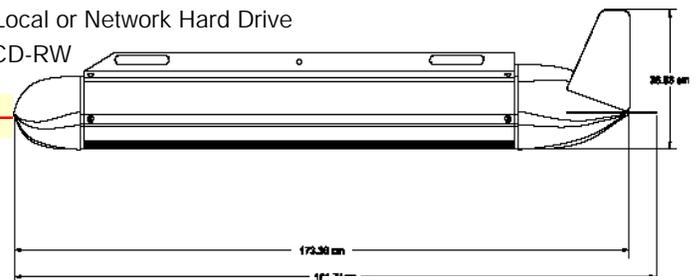
| | | |
|-------------------|----------------------------|----------------|
| Link: | MultiMux Option | StarMux Option |
| Trigger for USBL: | TTL | TTL |
| Tow Cable: | Type: 6 conductors | 11 mm coax |
| | Maximum Length: 350 meters | 6000 meters |

Sonar Control and Display Processor

| | |
|-----------------------------|---|
| Data Output: | 100 Base T Ethernet |
| Data Formats: | EdgeTech Full Spectrum (JSF), XTF to disk, others formats on request |
| Navigation Input: | NMEA 0183 |
| Range Scale Settings: | 25, 50, 75, 100, 150, 200, 250 |
| Thermal Printers Supported: | EPC, Ultra, Raytheon (data can be sub-sampled to match printer speed) |
| Annotation: | Keyboard, RS232 |
| Event Marks: | Manual, Internal Timed |
| Computer: | Processor - Ruggedized PC Operating System - Windows® 2000 |
| Mass Storage: | Primary – Local or Network Hard Drive Archive – CD-RW |

System Power

| | |
|--|-------------------------------|
| Power - Sonar Control & Display Processor Stand Alone or w/ StarMux Telemetry Option: | 200 watts |
| Power - Sonar Control & Display Processor w/ MultiMux Telemetry: | 300 watts |
| System Voltage: | 115/230 50/60 Hz Auto-Sensing |



Notes:

¹ Meets NOAA Shallow Water Survey specification – minimum 3 pings on a 1 meter target.

² Other depth ratings available



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