

4300-MPX SIDE SCAN SONAR SYSTEM



EdgeTech 4300-MPX Tow Fish

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



EdgeTech Model 4300-MPX
Topside Processor

The *EdgeTech 4300-MPX MultiPulse Side Scan Sonar System* represents a groundbreaking 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.

Based on EdgeTech's Full Spectrum Frequency Modulated (FM) pulses, the MPX 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!

To improve resolution at range, EdgeTech has developed Dynamic Aperture Processing™ (DAP) for use on the MPX. 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%.

Features:

- Four times as many pings on a target
- High speed data collection at up to 16 knots
- Enhanced resolution at range using Dynamic Aperture Processing™ (DAP)
- Flexible system design allows for operation in towed, ROV, or AUV deployment

Applications:

- Hydrographic surveys
- Geophysical surveys
- Cable and pipeline surveys
- Mine counter measure (MCM) surveys
- Site selection surveys, pre/post dredging surveys

4300-MPX SIDE SCAN SONAR



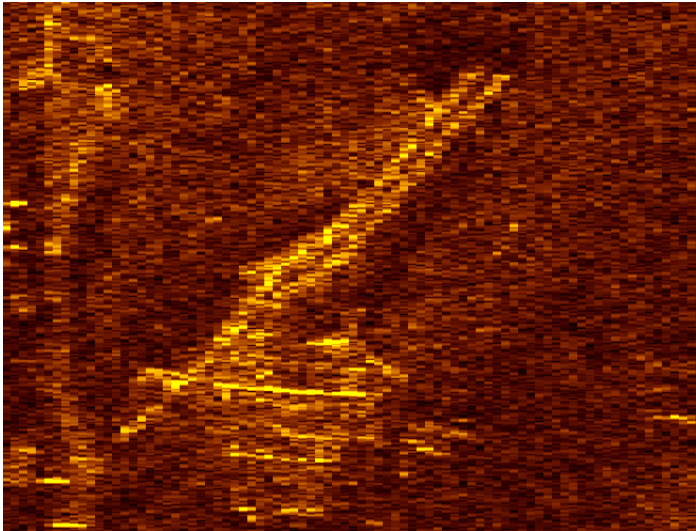
Key Specifications

4300-MPX Tow Fish

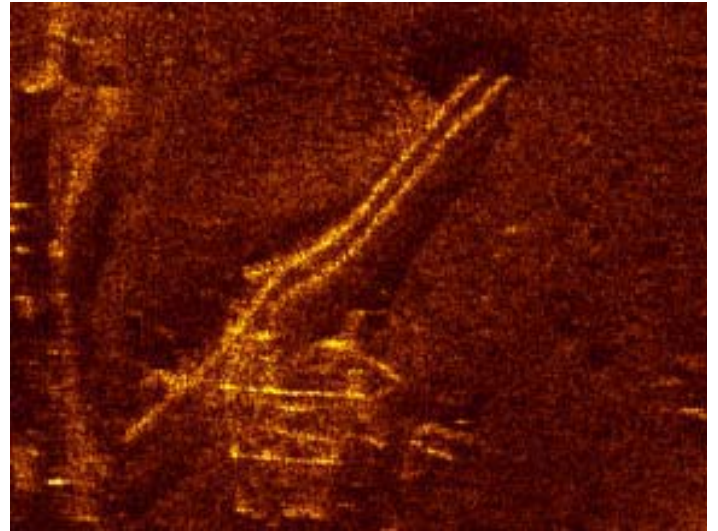
Frequency	410 kHz
Pulse Type	Full Spectrum Coded
No. of Pulses	4 Max
Towing Speed @ 100 meters *	Up to 16 knots
Maximum Operating Range	150 meters (300 meter swath) per side
Maximum Operating Depth	300 meters
Pulse Repetition Rate (pps)	28 @ 100 meter scale
Horizontal Beam Angle	0.5° up to 50 meters, 0.25° up to 100 meters
Resolution Along Track	0.7 m @ 150 m, 0.55 m @ 100 m, 0.4 m @ 75 m, 0.35 m @ 50 m
Sensors	Heading: Accuracy < 0.5°, Pitch and Roll: Accuracy ± 0.4°
Towfish TVG	None required
Length	173 cm
Height	37 cm
Diameter	19 cm
Weight in Air/Saltwater	59 kg / 35 kg
Options	270 kHz frequency, MultiMux option (see EdgeTech website)

* Meets NOAA Shallow Water Survey Specification - Min 3 pings on a 1 - meter target

Specifications subject to change without notice.



Single Pulse image of two pipes separated by 1.5m



Same Image utilizing EdgeTech's Multipulse technique (4 pulses) with Dynamic Aperture Processing™

Other EdgeTech Products

✓ Side Scan, Sub-bottom, Integrated and Modular Imaging Systems for Deep Towed, AUV, ROV and Other Applications utilizing Full Spectrum, MultiPing or Synthetic Aperture Acquisition and Processing Techniques.



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