

## **2050 DSS**

#### COMBINED SIDE SCAN SONAR & SUB-BOTTOM PROFILING SYSTEM

#### **FEATURES**

- · Fully integrated turnkey system
- Tri-Frequency Side Scan Sonar & Sub-Bottom Profiler
- Digital telemetry over single coaxial tow cable
- · Choice of side scan frequencies
- Built-in Pressure (Depth) Heading, Heave, Pitch and Roll sensors

#### **APPLICATIONS**

- · Cable and Pipeline Surveys
- · Geological/Geophysical Surveys
- · Sediment Classification
- · Pre/Post Dredging Surveys
- · Archeological Surveys
- · Scour/Erosion Investigation
- · Marine Construction Surveys





The EdgeTech 2050-DSS is the latest product to combine EdgeTech's highly successful line of side scan sonars and sub-bottom profilers into one fully integrated system. This is especially useful where high resolution sub-bottom profiler data, that requires the system to be towed near the seabed, is required.

The 2050-DSS is a tri-frequency side scan sonar system, where any two, operator selectable, frequencies can be operated simultaneously. The system can be provided with either a 120, 410 & 850 kHz towfish, or a 230, 540 & 850 kHz towfish. Both towfish options are equipped with a 2-16 kHz sub-bottom profiler, that utilizes a PVDF panel receive hydrophone. Use of an area based receive hydrophone panel provides improved beam patterns and therefore improved signal to noise ratio's, which in turn means cleaner data.

A standard System comes complete with a combined towfish, digital telemetry that runs over a single coaxial cable, a 19 inch rack mount topside interface, and EdgeTech's DISCOVER acquisition software. The 2000 Series System can be integrated with a number of auxiliary sensors such as magnetometer, depth, altitude and USBL responder. Additionally, an interface is fitted to the electronics so that the electronics and sensors can be mounted onto an ROV.

For requirements that call for combined side scan sonar and sub-bottom profiling incorporating lower frequency sub-bottom transducers and optional bathymetry EdgeTech offers the 2300 and 2300 with Bathymetry Combined systems.

For more information please visit EdgeTech.com



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### KEY SPECIFICATIONS

SIDE SCAN SONAR						
Available Frequency (dual simultaneous CHIRP)	120/410/850 kHz	230/540/850 kHz				
Operating Range	120 kHz: 600 meters/side	230 kHz: 350 meters/side				
	410 kHz: 200 meters/side	540 kHz: 150 meters/side				
	850 kHz: 90 meters/side	850 kHz: 90 meters/side				
Beam Width (2-way) & Along Track Resolution	120 kHz: 0.70 deghor 1.20 m @ 100	230 kHz: 0.44 deg or 0.80 m @ 100 m				
	410 kHz: 0.28 deg or 0.50 m @100 m	540 kHz: 0.26 deg 0.45 m @ 100 m				
	850 kHz: 0.23 deg 0.20 m @ 50 m	850 kHz: 0.23 deg 0.20 m @ 50 m				
Across Track Resolution	120 kHz: 8 cm	230 kHz: 3 cm				
	410 kHz: 2 cm	540 kHz: 1.5 cm				
	850 kHz: 1 cm	850 kHz: 1 cm				

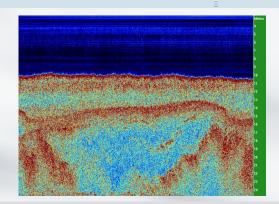
SUB-BOTTOM PROFILER		
Frequency Band		2-16 kHz
Resolution		6-10 cm
Receiver		PVDF
Penetration in coarse sand		6m
Penetration in clay		80m
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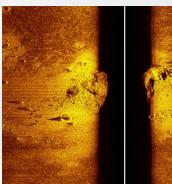
TOWFISH		
Length X Width X Height	145 cm (57") X 74 cm (30") X 84 cm (33")	
Weight in Air	145 kg (320 lbs.)	
Maximum Water Depth	2,000m (3,000m option)	

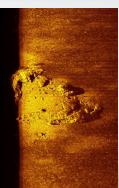
TOPSIDE PROCESSOR	
Hardware	Standard 19" rack
File Format	Native JSF or XTF for side scan, Native JSF, XTF, and/or SEG-Y for sub-bottom
Power Input	100-264 VAC, 50/60 Hz, auto-switching

Tow Cable

Double-armored coaxial, customer specified length







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