

2050 DSS



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.

Specifications

Product	2050 DSS
Country of origin	USA
Manufacturer	EdgeTech

Side scan sonar

Available frequency dual simultaneous chirp)	120/410/850 kHz(non-radioactive).	230/540/850 kHz
Operating range:	120 kHz: 600 meters/side) 410 kHz: 200 meters/side 850 kHz: 90 meters/side	230 kHz: 350 meters/side 540 kHz: 150 meters/side 850 kHz: 90 meters/side
Beam width (2-way) & along track resolution	120 kHz: 0.70 deg or 1.20 m @ 100m 410 kHz: 0.28 deg or 0.50 m @100 m 850 kHz: 0.23 deg 0.20 m @ 50 m	230 kHz: 0.44 deg or 0.80 m @ 100 m 540 kHz: 0.26 deg 0.45 m @ 100 m 850 kHz: 0.23 deg 0.20 m @ 50 m
Across track resolution	120 kHz: 8 cm 410 kHz: 2 cm 850 kHz: 1 cm	230 kHz: 3 cm 540 kHz: 1.5 cm 850 kHz: 1 cm
Vertical beam width		50"

Sub-bottom profiler

Frequency Band	2-16 kHz
Resolution	6-10 cm
Receiver	PVDF
Penetration in coarse sand	6m
Penetration in clay	80m

Towfish

Length X Width X Height	149 cm (58.7") X 78.7 cm (31") X 83.8 cm (33")
Weight in air	151 kg (332 lbs.)
Weight in saltwater	71 kg (156 lbs.)
Maximum water depth	2,000m (3,000m option)
Water tight:	O-Ring sealed for up to 4,000 psi depth operation.

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

