

2000

Combined Side Scan Sonar & Sub-bottom Profiler



The 2000 Series combines EdgeTech's highly successful line of side scan sonars and sub-bottom profilers into one fully integrated system.

The combined side scan sonar and sub-bottom profiling system comes in a choice of three different towfish: 2000-CSS, 2000-DSS and 2000-TVD. The CSS comes with a low frequency 500 Hz – 12 kHz sub-bottom profiler and is designed for applications that require sub-bottom penetration in water depths of up to 300m. The DSS comes with a higher frequency 2 – 16 kHz sub-bottom profiler and is designed for applications that require high resolution sub-bottom imagery in depths of up to 2,000m. The 2000-TVD comes with a low frequency 1 - 10 kHz sub-bottom profiler and is depth rated to 3000 meters. All towfish come with the choice of either a 100/400 kHz or 300/600 kHz dual simultaneous frequency CHIRP side scan sonar which will provide an excellent combination of range and resolution.

Specifications

Product	2000
Country of origin	USA
Manufacturer	EdgeTech

Features and applications

- Fully integrated turnkey system
- Digital telemetry over single coaxial tow cable up to 6,000m
- Choice of side scan and sub-bottom frequencies
- Built-in heading, pitch and roll sensors
- Archeological Surveys
- Geological/Geophysical surveys
- Sediment classification
- Cable and pipeline surveys
- Pre/Post dredging surveys
- Scour/Erosion Investigation
- Marine construction surveys

A standard 2000 Series System comes complete with a combined towfish, digital telemetry that runs over a single coaxial cable up to 6,000 meters long and a 19 inch rack mount topside processor running 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, for those organizations that have the need for both a deep rated (3000m) towed and ROV side scan sonar and sub-bottom system, the 2000-DSS is available in a configuration that allows for easy conversion between the two solutions with a single package.

Side scan sonar

Frequency (dual simultaneous CHIRP)	100/400 kHz	300/600 kHz
Operating system	100 kHz: 500 meters/side 400 kHz: 150 meters/side	300 kHz: 230 meters/side 600 kHz: 120 meters/side
Beam Width (2-way) & Along Track Resolution	100 kHz: 1.08 deg or 1.90 m @ 100 m 400 kHz: 0.56 deg or 0.96 m @100 m	300 kHz: 0.6 deg or 1.0 m @ 100 m 600 kHz: 0.26 deg 0.45 m @ 100 m
Across Track Resolution	100 kHz: 6.3 cm 400 kHz: 1.8 cm	300 kHz: 2.8 cm 600 kHz: 1.4 cm

Sub-bottom profiler

	2000-CSS	2000-DSS	2000-TVD
Frequency band	500 Hz – 12 kHz	2-16 kHz	1-10 kHz
Resolution	8–20 cm	6-10 cm	4-8 cm
Penetration in coarse sand	20m	6m	20m
Penetration in clay	200m	80m	200m

Towfish

	2000-CSS	2000-DSS	2000-TVD
Length	160 cm (63")	145 cm (57")	226 cm (89")
Width	124 cm (49")	74 cm (30")	81 cm (32")
Height	47 cm (18.5")	84 cm (33")	55 cm (22")
Weight in Air	232 kg (510 lbs.)	145 kg (320 lbs.)	250 kg (550 lbs.)
Maximum water depth	300m	2,000m	3000m

Topside processor

Hardware	Standard 19" rack
Operating system	Windows XP
Display	Dual 22" high resolution flat panel monitors
Archive	DVD-R/W and/or LAN connection
File format	Native JSF or XTF for side scan, SEG-Y for sub-bottom
Output	Ethernet
Power input	90 to 132 VAC and 180 to 260 VAC, Auto voltage detect and switching, 47-63 Hz