

2300

COMBINED SIDE SCAN SONAR, BATHYMETRY & SUB-BOTTOM PROFILING SYSTEM

FEATURES

- Fully integrated turnkey system
- Tri-frequency side scan sonar
- MPES bathymetry option
- Enhanced sub-bottom profiling capabilities with multiple low frequency transducers and PVDF receiver
- Digital telemetry over single coaxial tow cable
- Built-in heading, pitch, roll, heave and depth sonsor

APPLICATIONS

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





The new 2300 combines EdgeTech's highly successful line of side scan sonars, subbottom profilers and MPES bathymetry into one fully integrated system.

The new system builds on EdgeTech's proven sonar technology in a number of ways. The system is ideal for deep water combined sonar operations and provides enhancements to traditional systems. Utilizing EdgeTech's proven Full Spectrum® CHIRP technology to provide crisp, high resolution imagery, surveyors can choose to operate any two side scan sonar frequencies simultaneously from the tri-frequency system.

Sub-bottom profiler capabilities have been expanded on the new 2300 to include the ability to incorporate up to four low frequency transducers as part of EdgeTech's DW-106 (1-10 kHz) deep penetration system. Other transducer configurations available upon request. Coupled with that is the ability to utilize a large PVDF hydrophone array providing better sub-bottom receive sensitivity and directivity.

EdgeTech's MPES bathymetry is also available on the platform. The Multi Phase Echo Sounder (MPES) produces real-time, high resolution, three dimensional (3D) maps of the seafloor while providing co-registered simultaneous dual frequency side scan imagery. (Note: Bathymetry information is provided as a good visualization tool for the operator, but please be aware that creating high resolution Digital Terrain models from several adjacent lines may be more difficult, given the typical accuracy of any towfish positioning) The 2300 can support additional sensor interface options including a USBL beacon and a towed magnetometer. Contact sales for other sensor interface options .

For more information please visit EdgeTech.com

info@EdgeTech.com | USA 1.508.291.0057



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KEY SPECIFICATIONS

SIDE SCAN SONAR		STANDARD			
Frequency		Choice of either 120/410/850 kHz or 230/540/850 kHz tri-frequency side scan sonar * Note: Tri-frequency configurations operate any 2 frequencies simultaneously on command * Note: If bathymetry is desired in addition to side scan, select one of the MPES Bathymetry frequencies from below.			
Operating Range (meters/side)		120 kHz: 500 m, 230 kHz: 300 m, 410 kHz: 200 m, 540 kHz: 150 m, 850 kHz: 75 m			
Horizontal Beam Width		120 kHz: 0.68°, 230 kHz: 0.5°, 410 kHz: 0.3°, 540 kHz: 0.26°, 850 kHz: 0.2°			
Resolution Along Track		120 kHz: 2.4 m @ 200 m			
		230 kHz: 1.4 m @ 150 m 410 kHz: 0.5 m @ 100 m			
		540 kHz: 0.45 m @ 100 m			
		850 kHz: 0.15 m @ 50 m			
Resolution Across Track		120 kHz: 6.5 cm, 230 kHz: 3 cm, 410 kHz: 1.8 cm, 540 kHz: 1.5 cm, 850 kHz: 1 cm			
Vertical Beam Width		50°			
MPES BATHYMETRY		I		I	
Sonar Frequency	120 kHz	Ē	230 kHz	Ē	540 kHz
Beamwidths	1.5° x 1°		1° x 0.7°		1° x 0.5°
Max Optimal Operating Depth Below Towfish	150 m		100 m		50 m
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Max Swath Width	550 m		400 m		200 m
Sounding Patterns		Equidistant and Equiangular			
SUB-BOTTOM PROFILER		4 X DW 106			
Frequency Band		1-10 kHz			
Resolution		10 – 30 cm			
Penetration in coarse sand	E	18 m			
Penetration in clay		180 m			
TOWFISH					
Length		81″ (205.9 cm)			
Width		32.17″ (81.7 cm)			
Height		20" (50.8 cm - without fins) 30" (76.3 cm - with rear fins)			
Weight in Air		1100 lbs (449 kg)			
Weight in Water		650 lb (272 kg)			
	-	2000 meters standard			









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