



CODEVINTEC

Tecnologie per le Scienze della Terra e del Mare

2300 - Combined Side Scan Sonar, Bathymetry & Sub-bottom System



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

Applications

- > Geological surveys
- > Environmental site investigations
- > Sediment classification
- > Buried pipeline & cable surveys
- > Archeological surveys
- > Mining/dredging surveys
- > Map, measure & classify sediment layers within the sea floor



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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 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 (1-10kHz) deep penetration system.

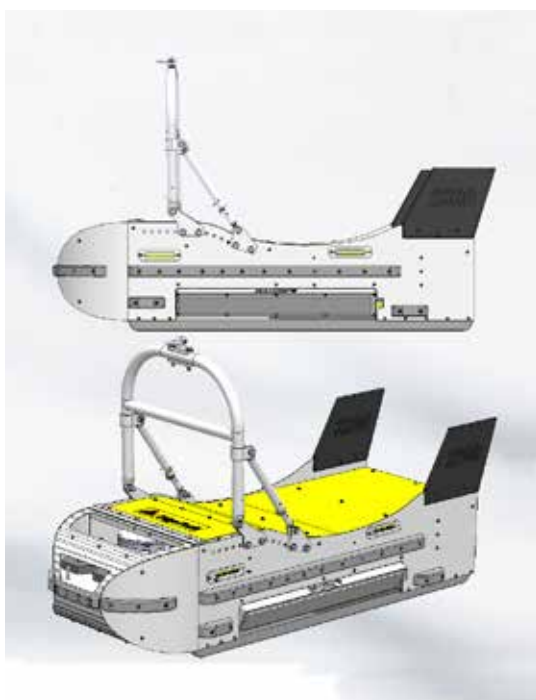
Coupled with that is the ability to utilize a large PVDF hydrophone array providing better sub-bottom receive sensitivity and directivity.

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 system.

Additional features include a remote head USBL beacon, optional Nexus Multiplexer, a rear magnetometer shackle mount, and adjustable trim panels.

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 up to 6,000m
- > Fiber optic cable supported for high bandwidth configurations
- > Built-in heading, pitch and roll sensors





2300 – 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
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

	120 kHz	230 kHz	540 kHz
Sonar Frequency	120 kHz	230 kHz	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
Max Swath Width	550 m	400 m	200 m
Sounding Patterns	Equidistant and Equiangular		

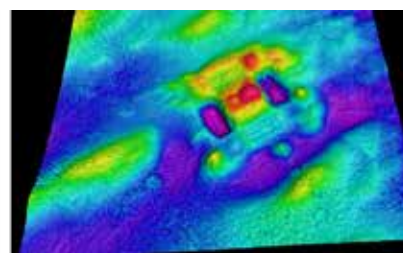
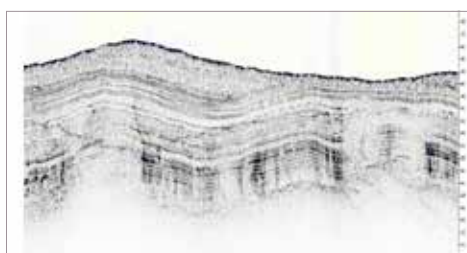
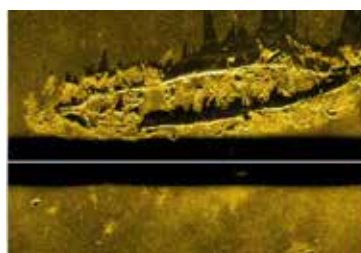
Sub-Bottom Profiler

4 X DW 106

Frequency Band	1-10 kHz
Resolution	10 – 30 cm
Penetration in coarse sand	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)
Maximum Water Depth	2000 meters standard



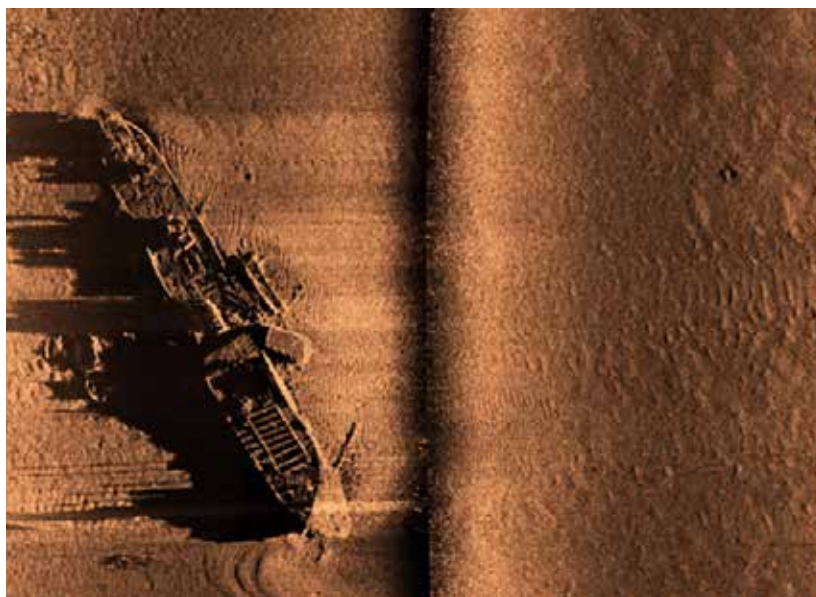


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