

4600

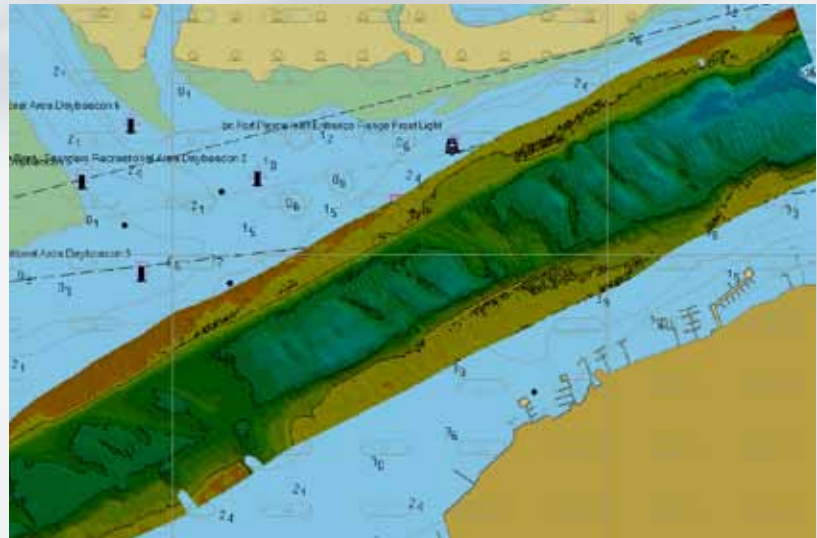
SWATH BATHYMETRY & SIDE SCAN SONAR

FEATURES & BENEFITS

- Wide swath bathymetry, up to 12 times water depth
- Co-registered high resolution side scan imagery
- IHO SP-44, special order compliant
- Over 200° view angle, dual array configuration
- No nadir gap & multipath suppression
- Better spatial resolution than multibeam echosounders
- Complete turnkey system
- Versatile mounting options

APPLICATIONS

- Shallow Water Hydrographic Surveys
- Benthic Habitat Mapping
- Nautical Charting
- Military Rapid Environmental Assessments (REA)
- Route Surveys
- Dredging Operations
- Marine Debris Search
- Port & Harbor Security



EdgeTech's 4600 is a combined, fully integrated, swath bathymetry and side scan sonar system. The 4600 produces real-time high resolution three dimensional (3D) maps of the seafloor while providing co-registered simultaneous side scan and bathymetric data.

The 4600 uses eight receive element transducers and one discrete transmit element. The high number of channels enables superior rejection of multi-path effects, reverberation and acoustic noise.

Utilizing EdgeTech's Full Spectrum® technology, the 4600 meets the IHO SP-44, NOAA and USACE specifications for feature detection. The Full Spectrum Technology® processing techniques also provide a denser data set in the nadir region compared to other interferometric systems. Near shore and shallow water hydrographic surveys are completed faster and safer utilizing the 4600 due to the wide swath, which is typically more than two times that of existing sonars that rely solely on beam forming techniques.

The sonar electronics and arrays for the 4600 are mounted onto a streamlined tow body that is deployed over the bow or over the side of the survey vessel via a pole. Sonar data is transferred from the transceiver to the processing unit on board via an Ethernet network interface. The system is available with two frequency options; either 230 kHz or 540 kHz.

The standard configuration for the 4600 includes an integrated sound velocity sensor and interfaces with standard GPS, MRU, SVP, CTD, Altimeters and Gyros. The 4600 interfaces to most 3rd party acquisition and processing software as well.

For more information please visit EdgeTech.com

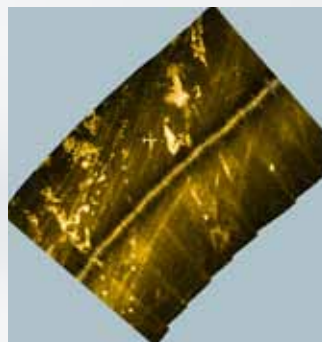
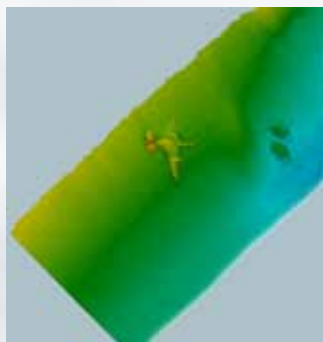
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SWATH BATHYMETRY & SIDE SCAN SONAR

KEY SPECIFICATIONS

SYSTEM		
Sonar Frequency (choice of one or the other)	230 kHz	540 kHz
Side Scan Sonar Swath Coverage	450 m	250 m
Bathymetric Swath Coverage	10-12 times altitude, 350 m swath	10-12 times altitude, 150 m swath
Side Scan Sonar Range Resolution	3 cm	2 cm
Bathymetric Range Resolution	6 cm	3 cm
Side Scan Sonar Horizontal Beamwidth	0.64 degrees	0.5 degrees
Bathymetric Vertical Resolution	5 cm	3 cm
Pulse Bandwidth	24 kHz	54 kHz
Max Depth Below Transducers	120 m	50m
Pulse Modulation	CW & CHIRP	
Array Elements	1 Transmit and 8 Receive per side	
Ping Repetition Rate	Both channels simultaneously, up to 50 Hz	
Pulse Length	15 μ s (CW) to 1.1 ms (CHIRP)	
Port/Starboard Crosstalk	< 60 dB	
TOWFISH		
Construction	Aluminum	
Length	48 inches (120 cm)	
Width	10 inches (26 cm)	
Diameter	9.2 inches (23 cm)	
Weight	98 lbs. (44 kg)	
Power Requirements	100 Watts, 48 VDC	
TOPSIDE PROCESSOR		
Operating System	Windows 7	
Interface	100 baseT Ethernet, Serial RS-232	
Display	Dual 21" LCD Monitors	
Storage	1 TB min hard drive & RW DVD	
Power Supply	Up to 350 Watts, 115/230 VAC (auto sensing)	



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