



SUB-BOTTOM PROFILING SYSTEM

The portable solution for high definition subbottom imaging.





EdgeTech Model 3100-P Topside Processor

The EdgeTech 3100-P Portable Sub-Bottom Profiling System is a high-resolution wideband Frequency Modulated (FM) sub-bottom profiler utilizing EdgeTech's proprietary Full Spectrum chirp technology. The system transmits a FM pulse that is linearly swept over a full spectrum frequency range (for example 2-16 kHz for 20 milliseconds.) The acoustic return received at the hydrophones is passed through a pulse compression filter, generating high-resolution images of the sub-bottom stratigraphy in oceans, lakes,

Because the FM pulse is generated by a digital to analog converter with a wide dynamic range and a transmitter with linear components, the energy, amplitude, and phase characteristics of the acoustic pulse can be precisely controlled. This precision produces high repeatability and signal definition required for sediment classification.

Several stable, low drag tow vehicles are available that contain wide band transmitter arrays and line array receivers that can operate in water depths up to 300 meters. Selection of tow vehicle depends on the sub-bottom condition on site, the type of features to be imaged, and penetration required.

Features:

- Portable
- High-resolution (4 cm of marine sediment strata resolution with bottom penetration of up to 100 meters)
- Wireless communications with wired Ethernet back-up

Applications:

- EEZ Resource Development
- Geo-technical surveys
- Geological studies
- Hazard surveys
- Environmental site investigations
- Sediment classification
- Mining and dredging surveys
- Bridge and shoreline scour surveys

"The Sound Solution"





3100-P SUB-BOTTOM PROFILING SYSTEM



Key Specifications

Tow Vehicle	SB- 216S	
Frequency Range	2-16 kHz	
Pulses (user selected)	2-16 kHz, 2-12 kHz, 2-10 kHz	
Vertical Resolution	6 cm / 2-15 kHz	
	8 cm / 2-12 kHz	
	10 cm / 2-10 kHz	
Penetration (typical)		
In coarse calcareous sand (meters)	6	
In clay (meters)	80	
Beam Width (depends on center frequency		
	20° / 2-12 kHz	. 1
	24° / 2-10 kHz	Ť.
Size (centimeters)		
Length	105	
Width	67	
Height	40	
Weight	76 kg	
Cable Requirements	3 shielded twisted pairs (5 used)	
Operating Depth (max)	300 meters (1,000 feet)	
Optimum Tow height	Typical record. Rocky outcrops co	overed by sand denosits. Fish
Tow Speed	echoes in water column, clearly visible indicating high resolution.	
System Options	echoes in water column, clearly vis	lible indicating high resolution.
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Other EdgeTech Products

✓ Side Scan, Sub-bottom, Integrated and Modular Imaging Systems for Deep Towed, AUV, ROV and Other Applications utilizing Full Spectrum, MultiPing or Synthetic Aperture Acquisition and Processing Techniques.



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Salida digital en tiempo real, y grafica un registro en archivo gráfico digital.

