

# 3200-XS SUB-BOTTOM PROFILING SYSTEM

*For customers who  
are serious about  
the substructure.*



Standard SB-0512i Tow Vehicle



EdgeTech Model 3200-XS  
Topside Processor

The *EdgeTech 3200-XS 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. 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, and rivers.

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 are precisely controlled. This precision results in high repeatability and signal definition required for sediment classification.

Several stable, low drag tow vehicles are available that contain wide band transmitter arrays and sensitive line array receivers that can operate in water depths up to 300 meters. The selection of tow vehicle depends on the sub-bottom characteristics and resolution required.

## Features:

- Unequaled images
- 20-30 dB improved SNR over conventional sub-bottom profilers
- SEG-Y and/or native JSF data file formats
- Full Spectrum CHIRP processing

## 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

# 3200-XS SUB-BOTTOM PROFILING SYSTEM



## Key Specifications

	SB-0512i	SB-216S	SB-424
Frequency Range	500 Hz-12 kHz	2-16 kHz	4-24 kHz
Pulse Type	Frequency Modulated		
Pulses (user selected)	2-12 kHz, 2-8 kHz, 1.5-7.5 kHz, 1-6 kHz, 1-5 kHz, 0.5-5 kHz	2-16 kHz, 2-12 kHz, 2-10 kHz	4-24 kHz, 4-20 kHz, 4-16 kHz
Vertical Resolution (depends on pulse selected)	8-20 cm	6-10 cm	4-8 cm
Penetration (typical)			
In coarse calcareous sand	20 meters	6 meters	2 meters
In clay	200 meters	80 meters	40 meters
Beam Width (depends on center frequency)	16°-32°	17°-24°	16°-23°
Size (centimeters)	160 (L) x 124 (W) x 47 (H)	105 (L) x 67 (W) x 40 (H)	77 (L) x 50 (W) x 34 (H)
Weight	190 kg	76 kg	45 kg
Cable Requirements	3 shielded twisted pairs (5 used)		
Maximum Operating Depth	300 meters		
Tow Speed	3 - 4 knots optimal, 7 knots maximum safe operation		
System Options	Integrated depth sensor, 4 kW amplifier, USBL acoustic tracking system		

*Specifications subject to change without notice.*



SB-216S Towfish



SB-424 Towfish

## 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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