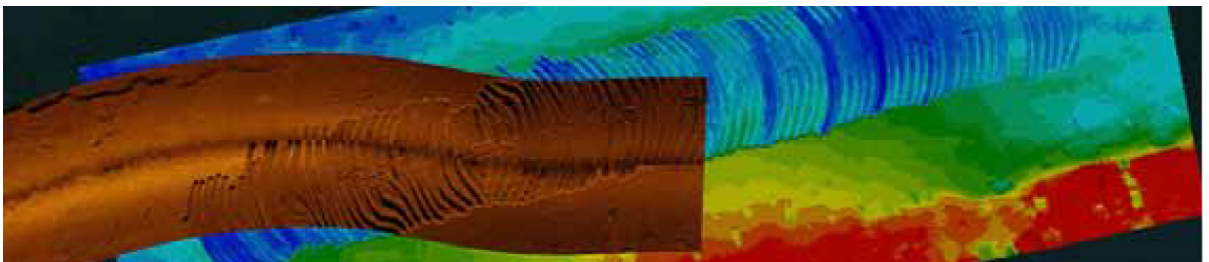




CODEVINTEC

Tecnologie per le Scienze della Terra e del Mare

6205^s Next generation swath bathymetry & side scan sonar



The EdgeTech 6205^s is a fully integrated Swath Bathymetry and Dual Fre-quency Side Scan Sonar System that produces real time, high resolution, side scan imagery and three-dimensional maps of the seafloor.

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



Land Gravity Meter LG-1 Galileo

The 6205^s overcomes the limitations of Multi Beam Echo Sounders (MBES) and Interferometric systems in shallow water by using EdgeTech's unique Multi-Phase Echo Sounder (MPES) technology. This Hybrid approach combines both Beamforming and Phase Discrimination techniques to determine each sounding along the seafloor. With the integration of EdgeTech's Full Spectrum® CHIRP technology, the 6205s exceeds IHO SP-44, NOAA, and USACE specifications for Feature Detection and Bathymetric Point Data Uncertainty. EdgeTech's MPES technology enables the 6205s to produce wider and cleaner swath (over 200°) than current technologies, resulting in superior coverage enabling faster and safer survey completion. At the same time, the 6205s rejects multipath effects, reverberation, and acoustic noise commonly encountered in shallow water environments.

Additionally, EdgeTech's latest 2205 Electronics and Modular Arrays are utilized in the 6205^s, resulting in an extremely lightweight design, which is required for shallow water applications and vessels of opportunity. The standard configuration for the 6205^s includes an integrated Sound Velocity Sensor, and interfaces to most Third-Party acquisition and processing software packages, as well as to standard GPS, MRU, SVP, Gyros, and INS.

Technical Specifications

Bathymetry

Sonar Frequency	230 kHz	550 kHz
Beamwidths*	1° x 0.7°	1° x 0.5°
Optimal Operating Depth**	<100 m	< 50 m
Max Swath Width***	400 m	200 m
Max Swath Sector	200°	
Max Number of Soundings	800	
Sounding Patterns	Equidistant and Equiangular	

Side Scan Sonar Imagery

Frequency	230 kHz	550 kHz	850 kHz	1600 kHz
Horizontal Beamwidth (2-way)	0.54°	0.36°	0.29°	0.20°
Range Resolution	30 mm	10 mm	9 mm	6 mm
Max Range**	250 m	150 m	75 m	35 m

System

Pulse Modulation	CW & FM CHIRP		
Ping Rate (Range Dependent)	Up to 60 Hz		
Construction	Polycarbonate / 316 Stainless Steel Frame		
Dimensions	208 x 244 x 759 mm (8.1 x 9.6 x 29.8 in)		
Deck Cable Length	20 m (Standard)		
Depth Rating	50 m		
Weight (In Air)	20 kg (44 lbs)		
Input Voltage	48-60 VDC, 115-230VAC		
Power (Typical /Max)	55W / 70W		
Software	Windows based software included EdgeTech's Discover Bathymetric Acquisition and Sonar Control		
Data Products	Bathymetry, Backscatter and Side Scan Imagery, and Real Time Uncertainties		

*Across track resolution expressed as a beamwidth at nadir **Dependent on environmental conditions (i.e. absorption, reverberation, sea noise, etc.) *** Assumes a flat seafloor and dependent on environmental conditions

Features & Benefits

- > Next generation MPES technology
- > Unrivaled swath coverage in shallow water when compared to other single head systems
- > Co-registered dual frequency side scan and single frequency bathymetry with full nadir coverage
- > Superior multipath rejection
- > IHO SP-44 Special Order compliant
- > Swath sectors of up to 200°
- > Equidistant and Equiangular output options
- > Comes with EdgeTech's Discover
- > Bathymetric Sonar Control Software
- > Motion Tolerant Side Scan
- > Universal MRU mounting plate

Options

The 6205^s is available in several standard frequency configurations:

- > 550 / 1600 kHz (Dual Frequency Side Scan with 550 kHz bathymetry data)
- > 550 / 850 kHz (Dual Frequency Side Scan with 550 kHz bathymetry data)
- > 230 / 550 kHz (Dual Frequency Side Scan with 550 kHz bathymetry data)
- > 230 / 550 kHz (Dual Frequency Side Scan with 230 kHz bathymetry data)

The modular design of the 6205^s also allows or multi-frequency bathymetry options in a single sonar head. The field exchangeable array capability allows both shallow and deep water operations.