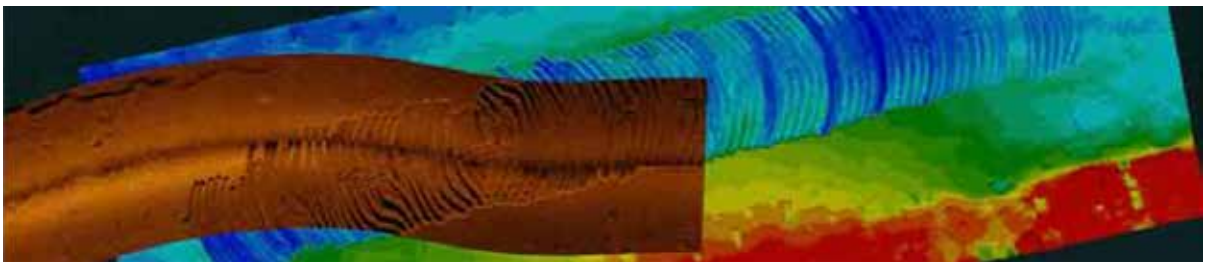




CODEVINTEC

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 Frequency Side Scan Sonar System.

Real time, high resolution, side scan imagery and 3D 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



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 Dis-crimination 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 Equiangle 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.