

2400 Series Deep Towed



EdgeTech's 2400 Series is a fully integrated combined side scan sonar & sub-bottom profiling system designed for deep water operation in depths up to 6,000m. The 2400 can be completely configured by the user to best suit the applications at hand. The system comes with a dual simultaneous frequency side scan sonar with a choice of 75 kHz, 120 kHz or 410 kHz frequencies; any of which can be paired together. The 2400 also comes with the choice of a wideband sub-bottom profiler. Frequency options for the sub-bottom profiler are 1-10 kHz, 2-16 kHz or 4-24 kHz.

Specifications

Product	2400 Series Deep Towed
Country of origin	USA
Manufacturer	EdgeTech

A multitude of additional optional sensors can also be integrated with the 2400 System for additional data collection. Many of these sensors are Plug ‘n’ Tow™ which means they have been tested by EdgeTech and the product manufacturer to ensure that both systems will work seamlessly together. Some typical Plug ‘n’ Tow™ sensors include magnetometer, USBL acoustic tracking system, swath bathymetry, CTD, motion sensing, etc. with others also available.

A standard 2400 System comes complete with a 19” rack mount topside processor, EdgeTech’s DISCOVER acquisition software, a choice of towfish depending on max depth requirements, and a customer-specified length of coaxial or fiber optic tow cable.

Features

- Fully integrated turnkey system
- Plug’n’Tow factory tested optical sensors available
- Analog & digital channels for usersupplied sensors
- Built-in heading, pitch and roll sensors
- Digital telemetry over single coaxial or fiber optic tow cable

Key specifications

Side scan sonar	DW-75/410	DW-120/410
Frequency (dual simultaneous CHIRP)	75 & 410 kHz	120 & 410 kHz
Operating Range	75 kHz: 600 m/side 410 kHz: 150 m/side	120 kHz: 400 m/side 410 kHz: 150 m/side
Horizontal Beam Width (1-way @-3dB)	75 kHz: 1.3° 410 kHz: 0.75°	120 kHz: 1.1° 410 kHz: 0.75°
Vertical Beam Width (1-way @-3dB)	75°	
Along Track Resolution	75 kHz: 8.2m @500m 410 kHz: 0.94m @100m	120 kHz: 4.15m @300m 410 kHz: 0.94m @100m
Across Track Resolution	75 kHz: 10 cm 410 kHz: 1.8 cm	120 kHz: 6.25 cm 410 kHz: 1.8 cm
Depression Angle	10° to 20° from horizontal, adjustable	

Sub-bottom profiler

	DW-75/410	DW-120/410	DW-424
Frequency Band	1-10 kHz	2-16 kHz	4-24 kHz
Resolution	9-25 cm	6-10 cm	4-8 cm
Penetration in coarse sand	20	6	2
Penetration in clay	200	80	40

Towfish

Towfish	DT-1	TV-D
Length	305 cm (120")	2-16 kHz
Width	92 cm (36")	6-10 cm
Height	104 cm (41")	6
Weight in air	910 kg (2,000 lbs.)	80
Weight in saltwater	Positively buoyant	2-16 kHz
Depth rating	Choice of 3,000m or 6,000m housing (other depths optional)	
Options	Depressor, 50 meter umbilical, emergency recovery system (acoustic release, RDF, strobe light)	

Topside processor

Hardware	19" Rack 3U
Operating system	Windows XP
Display	Dual 21" high resolution fl at panel monitors
Archive	DVD-R/W and/or LAN connection
File format	Native JSF or XTF for side scan, SEG-Y for sub-bottom
Output	Ethernet
Power input	105-230 VAC auto sensing, 50-60 Hz

Tow cable

Type	Coaxial or fi ber optic
Max Length	10,000m for coaxial, no limit on fi ber optic

System options

Magnetometer, multi-beam swath bathymetry, CTD, motion sensing, USBL acoustic tracking system, custom sensors