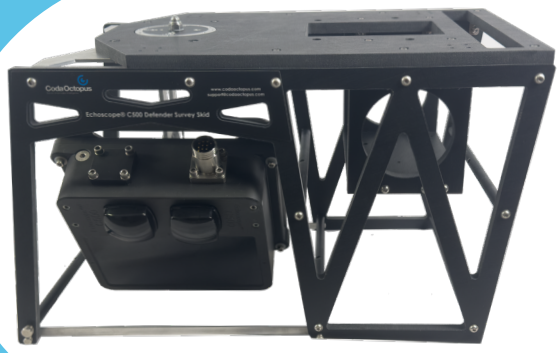
Coda Octopus
Sound Underwater Intelligence

/Echoscope® C500 Defender Survey Skid

Revolutionizing Underwater Surveying

Unprecedented Precision and Control for Subsea Exploration with Integrated Manual Panning and Tilting



The Echoscope® C500 Defender Survey Skid has been designed by Coda Octopus for the seamless integration of its real-time 3D imaging solutions onto the VideoRay Defender. This advanced assembly is compatible with the Echoscope® C500 Surface series, including the Echoscope PIPE® CIVS Surface, renowned for high-resolution real-time 3D sonar imaging capabilities. The Defender Survey Skid provides balanced mounting support for a range of DVL-aided INS systems, ensuring precise positioning and allowing users to navigate complex environments and provide real-time 3D mapping and inspection data without post-processing.

The Echoscope® C500 Defender Survey Skid offers intuitive manual control, allowing operators to pan and tilt the Echoscope® for optimal viewing angles. This hands-on approach, combined with unparalleled imaging and seamless integration, sets a new standard for underwater surveying technology. From routine inspections to marine research and search and rescue operations, this fully integrated innovative platform empowers users to explore the depths with unmatched clarity and precision.

Real Time 3D Sonar-ROV Platform Features

▲ Mounting Echoscope® C500 Defender Survey Skid on a ROV

Seamless Integration
- Specially designed for the VideoRay Defender ROV.
- Mounting fully compatible with Greensea GS4 INS, Nortek DVLs, and Sonardyne SPRINT-Nav Mini Navigation Systems.

Adjustable Angles
- Tilt allows easier seafloor visualization.
- Sonar can be mounted forward-looking, tilted downward between 0-90° in 25° increments, and panned at 3 different angles: -90° (left), 0° (forward), and 90° (right).
- Quick-release pins allow easy adjustment of pan and tilt angles, which can be performed during a dive.

Practical Handling
- The base allows the unit to be set down while protecting the sonar.
- Quick-release pins allow the sonar to be removed from the platform assembly for easy deployment and packing.

Echoscope PIPE® C500 Surface
- Available in both dual or triple frequency options.
- Cable transmits data back to a surface unit for display.

Coda Octopus
Sound Underwater Intelligence

Sales Worldwide: +44 131 553 1380
Sales Americas:+1 407 735 2400
sales@codaoctopus.com
www.codaoctopus.com

Coda Octopus
Sound Underwater Intelligence

/Echoscope® C500 Defender Survey Skid

Echoscope® C500 Defender Survey Skid Technical Specifications

Performance (by Model)	Dual Frequency	Triple Frequency
Acoustic Projectors	Mid-Frequency (375 kHz) and High-Frequency (630kHz)	XD Low-Frequency (240kHz), Mid-Frequency (375 kHz) and High-Frequency (630kHz)
Adaptive Frequency Band	375kHz: 315kHz – 425kHz 630kHz: 550kHz – 700kHz	240kHz: 220kHz – 280kHz 375kHz: 315kHz – 425kHz 630kHz: 550kHz – 700kHz
Number of beams (Density)	Up to 180 x 180	Up to 180 x 180
Number of Values Per Beam	2,500 (Dependent on Features Purchased)	2,500 (Dependent on Features Purchased)
Maximum range*	120m (394ft) at 375 kHz 80m (262ft) at 630 kHz *The actual working range will depend on the target's size, reflectivity, and the level of detail required for the application.	150m (492ft) at 240 kHz 120m (394ft) at 375 kHz 80m (262ft) at 630 kHz *The actual working range will depend on the target's size, reflectivity, and the level of detail required for the application.
Minimum range*	0.5m (1.64ft)	0.5m (1.64ft)
Range resolution	3cm (1.2")	3cm (1.2")
Update rate (ping rate)	Up to 40Hz	Up to 40Hz
Imaging Field of View (User Selectable)	315kHz – 425kHz: 54°x54° – 46°x46° 550kHz – 700kHz: 33°x33° – 25°x25°	220kHz – 280kHz: 100°x44° – 76°x33° 315kHz – 425kHz: 54°x54° – 46°x46° 550kHz – 700kHz: 33°x33° – 25°x25°
Beam Density (Spacing)	315kHz – 425kHz: 0.3°x0.3° – 0.26°x0.26° 550kHz – 700kHz: 0.18°x0.18° - 0.14°x0.14°	220kHz – 280kHz: 0.56°x0.24° – 0.42°x0.18° 315kHz – 425kHz: 0.3°x0.3° – 0.26°x0.26° 550kHz – 700kHz: 0.18°x0.18° – 0.14°x0.14°

*The actual working range will depend on the target's size, reflectivity, and the level of detail required for the application

Sonar Mounting Angles

Pan Angle	0°		-90°/+90°	
Tilt Angle	Connector Up	Connector Sides	Connector Up	Connector Sides
0°	Yes	Yes	No	Yes
25°	Yes	Yes	No	Yes
50°	Yes	Yes	Yes	Yes
75°	Yes	Yes	Yes	Yes
90°	Yes	Yes	Yes	Yes

Physical

Dimensions (h x w x d)	67.0 cm x 41.2 cm x 40.3 cm (26.4 x 16.2 x 15.9in)	
Weight in Air	Sonar plus the Skid: 18.4 kg (40.6 lbs) Sonar Only: 9.6 kg (21.2 lbs)	Sonar plus the Skid: 19.0 kg (41.9 lbs) Sonar Only: 10.2 kg (22.5 lbs)
Power Consumption	2 – 6 A at 24 V DC 10 A inrush for less than 20 µs may occur on start-up	
Depth Rating	Rated up to 50m (164ft)	

Publication Date: 05.24
Version: 1.2.05.24

Sales Worldwide: +44 131 553 1380
Sales Americas:+1 407 735 2400
sales@codaoctopus.com
www.codaoctopus.com