

**Fourth Generation of Echoscope<sup>®</sup> Sonars**

- Lighter/Smaller/Less Power Requirements
- More Versatile Deployments Possible
- Shallow Water Depth Rating

**Benefits**

- Improved situational awareness
- Highest definition of multibeam data output in the world
- Real time decision making
- Increased productivity
- Maintain subsea operations in zero visibility
- Enhanced safety
- Expert 24x7 Technical Support



20m Depth Rating

## Echoscope<sup>4G</sup><sup>®</sup> Surface the latest generation of real-time 3D Sonar... reimagined, reengineered and repackaged

The Echoscope<sup>4G</sup><sup>®</sup> Surface is the first of a series of products within our fourth-generation of real-time 3D imaging sonars platform.

The Echoscope Surface is 50% lighter, 40% smaller and uses 30% less power than our third-generation of real-time 3D imaging sonars.

The Echoscope Surface is a 20m depth rated system and provides the full functionality of our real time 3D sonars including generating complete 3D models of targets comprising over 16,000 soundings from every acoustic transmission which is refreshed up to 12 times per second. The Echoscope<sup>4G</sup><sup>®</sup> Surface offers two different models with a wide range of flexible applications:

**New Features**

- ☪ Dual and Triple (XD) frequency models available
- ☪ XD feature can be operated in Landscape or Portrait mode for increased horizontal or vertical coverage in critical applications
- ☪ High definition 3D sonar image generated in real time
- ☪ Mosaicing/mapping capability
- ☪ Accurate display of dynamic objects and structures
- ☪ Accurate even in turbid waters
- ☪ Suitable for installation on vessels, USV, barge or crane
- ☪ Accurate geo-referenced data
- ☪ Versatile DTM Output Options
- ☪ Very easy to use, even by non-sonar experts such as crane operators and law enforcement officers

	Frequency	Angular Coverage
Dual Frequency	375,630kHz	50°x50°, 24°x24°
Triple Frequency	240,375,630kHz	90°x44°, 50°x50°, 24°x24°

/Echoscope<sup>4G</sup><sup>®</sup>**SURFACE**

Surface Deployed Sonar

# Coda Octopus

Sound Underwater Intelligence

Technical Specifications		
Performance (by Model)	Dual Frequency	Triple Frequency
Frequency	375kHz and 630kHz software selectable	240, 375, and 630kHz
Number of beams	128 x 128 (16,384) total	128 x 128 (16,384) total
Maximum range*	375kHz: 120m (394 ft) 630kHz: 80m (262 ft) <i>The actual working range will depend on the target's size, reflectivity, and the level of detail required for the application.</i>	240kHz: 150m (492ft) 375kHz: 120m (394ft) 630kHz: 80m (262ft) <i>The actual working range will depend on the target's size, reflectivity, and the level of detail required for the application.</i>
Minimum range*	0.5m (1.64ft)	0.5m (1.64ft)
Range resolution	3cm (1.2in)*	3cm (1.2in)*
Update rate (ping rate)	Up to 20 Hz software selectable	Up to 20 Hz software selectable
Angular coverage	50°x50°, 24°x24°	90°x44°, 50°x50°, 24°x24°
Beam spacing	375kHz: 0.39°x0.39° 630kHz: 0.19°x0.19°	240kHz: 0.70°x0.34° 375kHz: 0.39°x0.39° 630kHz: 0.19°x0.19°
*The actual working range will depend on the target's size, reflectivity, and the level of detail required for the application		
Physical		
Dimensions (h x w x d) (excluding connectors)	321mm x 293mm x 126mm (12.6in x 11.5in x 5.0in)	354mm x 293mm x 137mm (13.9in x 11.5in x 5.4in)
Dimensions (h x w x d) (including Echoscope <sup>®</sup> Protective Cover)	330mm x 303mm x 130mm (13.0in x 11.9in x 5.1in)	358mm x 303mm x 140mm (14.1in x 11.9in x 5.5in)
Weight in Air	11.5 kg (25.4 lbs)	12 kg (26.5 lbs)
Weight in Water	4 kg (8.8 lbs)	4kg (8.8 lbs)
Power Consumption	2 - 6A at 24Vdc <i>**And up to, 10A inrush for less than 20µs may occur on start-up</i>	2 - 6A at 24Vdc <i>**And up to, 10A inrush for less than 20µs may occur on start-up</i>
Depth Rating	20m (65ft) <i>Failure to keep within this depth rating can irretrievably damage the unit.</i>	20m (65ft) <i>Failure to keep within this depth rating can irretrievably damage the unit.</i>
Interfaces		
Sonar head to control unit	Power: 24V DC Control: RS232 Serial Cable Data: 100Mb Industry Standard Ethernet Single cable for power, data and control	Power: 24V DC Control: RS232 Serial Cable Data: 100Mb Industry Standard Ethernet Single cable for power, data and control
*Depending on operating mode		

## Echoscope<sup>®</sup> Features

- High definition 3D sonar image generated in real-time
- Mosaicking capability
- Displays complex moving structures accurately
- Accurate even in turbid water
- Accurate geo-referenced data
- Versatile DTM output options
- Very easy to use even by non sonar experts such as crane operators and law enforcement officers

## Echoscope<sup>4G</sup><sup>®</sup> Protective Cover Included

The Echoscope<sup>4G</sup> Surface sonar is supplied with a replaceable encapsulating cover for the sonar head, protecting the hard-anodized aluminium housing from light impact, scratching and marine fouling. The protective cover can be removed for general cleaning of the unit and removal of any marine fouling from the cover. Made from Derlin™, the cover is a lightweight, easy to install protection accessory.

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