

Lightest/Smallest 3D Imaging Sonar available
Designed for small USV installation
Upgraded to the 4G Performance Pack

Benefits

- Improved situational awareness
- Real time decision making
- Increased productivity
- Maintain subsea operations in zero visibility
- Minimises non-productive time
- Enhanced safety
- Expert 24x7 Technical Support



20m Depth Rating

The Echoscope^{4G}® C-Series. Compact real-time 3D sonar for performance and economy

The new Echoscope^{4G}® C500 Surface is the latest Surface variant of our 4th generation real-time 3D imaging sonar platform. Designed specifically with small USV use in mind, the Echoscope^{4G} C500 Surface builds on the advantages of our Compact range by offering the lightest, smallest and easiest to integrate real-time 3D sonar on the market today.

The 4G platform is delivered in a smaller, lighter housing which will for the first time give customers with smaller USVs the opportunity to integrate a real-time 3D imaging and mapping sonar. With the sonar's unique capability to generate real-time 3D images around complex structures, this will enable inshore security inspection, asset integrity mapping and search and rescue operations to be quickly and effectively undertaken from the smallest of available platforms.

The Echoscope^{4G} C500 Surface is supplied as a single dual-frequency model rated to 20m. In common with all of our real-time 3D sonars, the C500 Surface generates a complete 3D model composed of over 8,000 soundings from each and every acoustic transmission. This 3D model is entirely refreshed up to 20 times per second with each new transmission.

With sounding densities far in excess of those generated by other sonars, combined with the new increased 20Hz ping rate, the C500 presents unrivalled clarity of dynamic operations and moving objects in video-like data format in low visibility water conditions. All the Echoscope^{4G} range take advantage of patented statistical rendering techniques to further enhance the clarity of the image, presenting the user with an intuitive and easy-to-interpret image.

In mapping and inspection tasks, the ping geometry of the C500 will allow a target to be visualized many times in a single pass, with each view taken from a different angle. This allows complex subsea structures to be mapped with a level of confidence and detail for beyond anything than can be achieved using alternative methods.

Whether deployed on inland waterway works or large scale offshore projects, the Echoscope^{4G} C500 Surface real-time 3D sonar will provide clear imagery of the underwater environment.

New Features

- Lighter/Smaller/Reduced Power/Lower Cost
- Latest 4th Generation Processing Engine
- Increased ping rate now 20Hz
- Reduced minimum range now 0.5m
- Ping Pong alternating ping mode (e.g. alternating frequencies)
- Programmable TVG
- Standard 100mb Ethernet for ROV/AUV applications



Coda Octopus:3D

Real-Time Sonar Solutions

/Echoscope^{4G}® C500 **SURFACE**

Surface Deployed Sonar

Technical Specifications	
Performance (by Model)	Dual Frequency
Frequency	375 and 630kHz
Number of beams	128 x 64 (8,192 total)
Maximum range*	80m (262 ft)
Minimum range*	0.5m (1.64ft)
Range resolution	2cm (0.8in)/ 3cm (1.2in)*
Update rate (ping rate)	Up to 20 Hz software selectable
Angular coverage	50°x50°, 50° x 25°, 25° x 50°, 25° x 25° software switchable
Beam spacing	0.39° (Hor.) or 0.78° (Vert.) at 375 kHz or 0.19° (Hor.) x 0.39° (Vert.) at 610 kHz dependent on angular coverage
*Software selectable	
**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)	232mm x 300mm x 147mm (9.1in x 11.8in x 5.8in)
Weight in Air	9.4kg (20.7 lbs)
Weight in Water	3.25 kg (7.2 lbs)
Power Consumption	2-6A at 24Vdc
Depth Rating	20m (65ft)
Interfaces	
Sonar head to PSU	Power: 24V DC Control: RS232 Serial Cable Data: 100Mb Industry Standard Ethernet Single cable for power, data and control
Applications	
Port and harbor security, Infrastructure Inspection, Scour inspection, Marine salvage, Diver monitoring and identification, Obstacle avoidance and AUV/ASV navigation, Decommissioning, Contraband detection, Biological study (fisheries, marine mammals), ASV and USV 3D Volumetric Mapping	
*Depending on operating mode	

Echoscope® 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^{4G}®, Echoscope®, CodaOctopus® (Reg, Us Pat & TM off) are trademarks of Coda Octopus.

The information in this publication was correct when it was published but specifications may change without notice. Photos are included for illustrative purposes only and actual items may differ in appearance. Coda Octopus does not assume responsibility for typographical or photographic errors. Issue 1.0 (1.19)

Sales Worldwide: +44 131 553 1380

Sales Americas: +1 863 937 8985

Sales Australasia: +61 894 308 045

More Information: sales@codaoctopus.com

salesamericas@codaoctopus.com

www.codaoctopus.com

Technical Support Worldwide: +44 131 553 7003

Technical Support Americas: +1 888 340 2632

