Eclipse

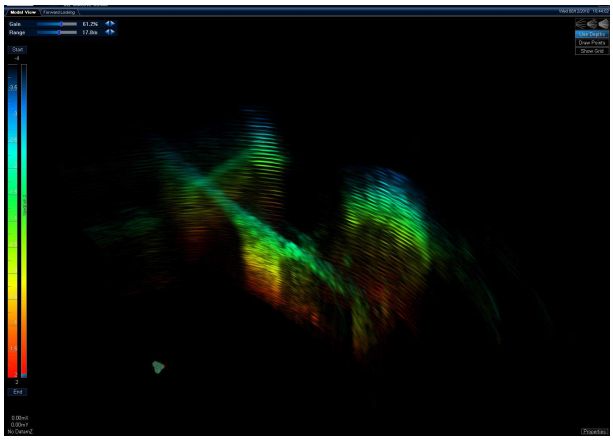
3D Multibeam Imaging Sonar

The Eclipse can be deployed on an ROV at depths of 1000m and can serve as a multi- function device using either forward looking navigation mode, 2D search or 3D model view.

In forward-looking or search mode, Eclipse produces 2D images, which can be used to aid navigation and obstacle avoidance when mounted on an ROV.

In 3D mode the image can be digitised into a points cloud for export to third party applications for further processing.

The Eclipse 3D model view allows imaging up to 40m range with 1.5° sweep steps. By electronically sweeping the 1.5° by 120° profiling beam a 120° (horizontal) by 45° (vertical) volume can be produced ahead of the sonar. Depending on range setting the Eclipse can image a complete volume scan in less than one second. Measurements that are possible with the Eclipse 3D model view include: range, bearing, horizontal and vertical distance and the slope angle between two points of interest.



Pier structure survey displayed clearly using 3D Model View

Highly versatile multibeam 3D sonar

The Eclipse can carry out horizontal and vertical measurements through the use of Tritech's true time delay beam forming and electronic beam steering technology. This makes the Eclipse the most flexible multibeam imaging sonar on the market.

Benefits

- Clear 3D visuals
- Vertical measurement
- Forward looking imagery
- Increased target acquisition
- Real-time 3D imaging and measurement

Features

- 3D model view
- 2D search mode to locate objects of interest
- 2D forward looking for obstacle avoidance
- Unaffected by poor visibility
- Electronic beam steering
- High speed data acquisition
- ROV or vessel deployable

Applications

- Mattress laying
- Construction support
- Search and salvage operations
- Pipeline inspection
- Touchdown monitoring
- Dredging
- Harbour wall inspection

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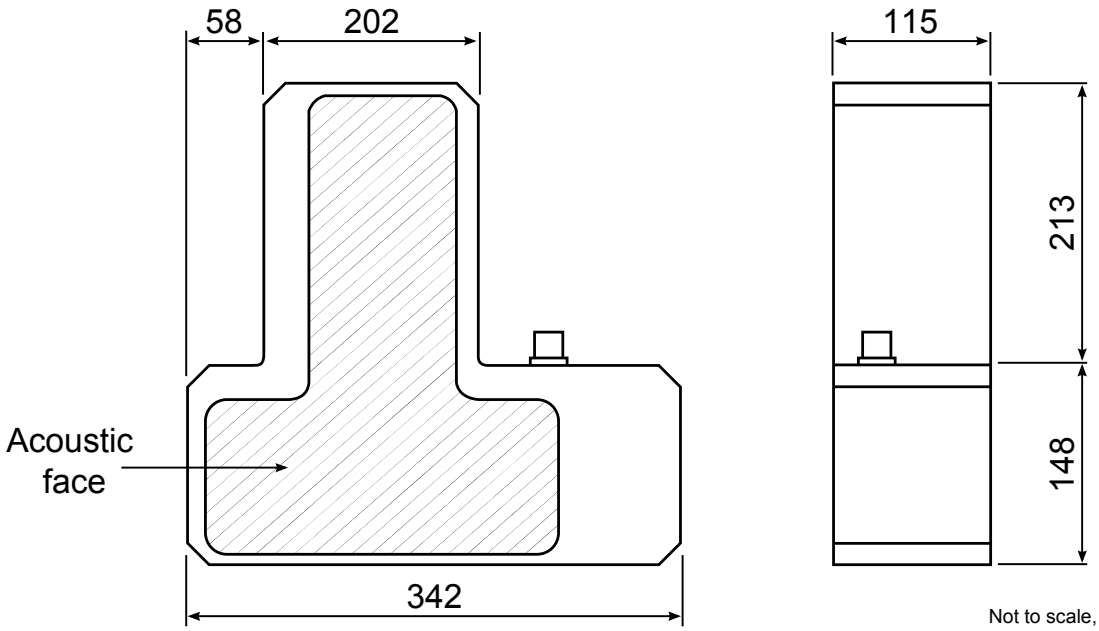
Specification



Not to scale, dimensions in mm.

Acoustic	
Operating frequency	240kHz
Angular resolution	1.5° acoustic, 0.5° effective
Beamwidth	120°
Number of beams	256
Range	120m, 2D forward looking 60m, 2D search 40m, 3D
Scan rate	100Hz at 5m, 7Hz at 100m
Range resolution	2.5cm

Electrical and Communication	
Power consumption	60W
Supply voltage	20 – 28V DC
Communication protocols	Ethernet (100BaseT)
Connector type	Teledyne Impulse MHDG 3#16 5#20
Surface Control Unit	Dedicated Eclipse Surface Processing Unit with Eclipse Software installed

Physical	
Weight in air	19kg
Weight in water	9kg
Depth rating	1000m
Temperatures	Operating: -10 to 35°C, Storage: -20 to 50°C

Marketed by:

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