

Horizon

Multibeam Echosounder System

Benefits

- Compact & robust single housing
- 256 beams across 120° swath
- Focused 0.75° beam widths
- 5mm depth resolution
- Fast ping rate up to 100Hz
- Dual-head capability
- 2500m depth rated

Applications

- Hydrographic Survey
- Seabed Asset Inspection
- Pre/Post Dredge Survey
- Pipeline Inspection
- Wreck Inspection
- Marine Research
- Salvage Operations



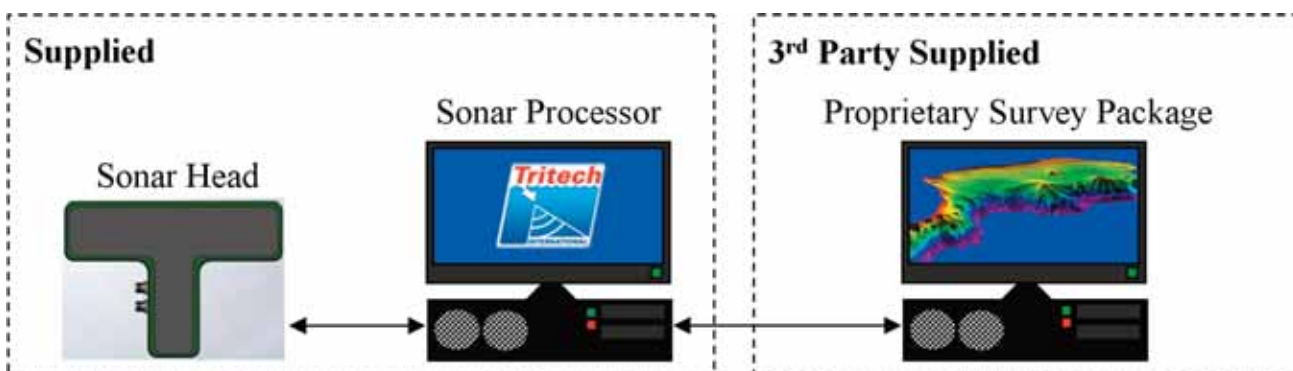
Horizon uses the very latest advances in acoustic time delay beamforming techniques to deliver high quality survey data at an affordable cost.

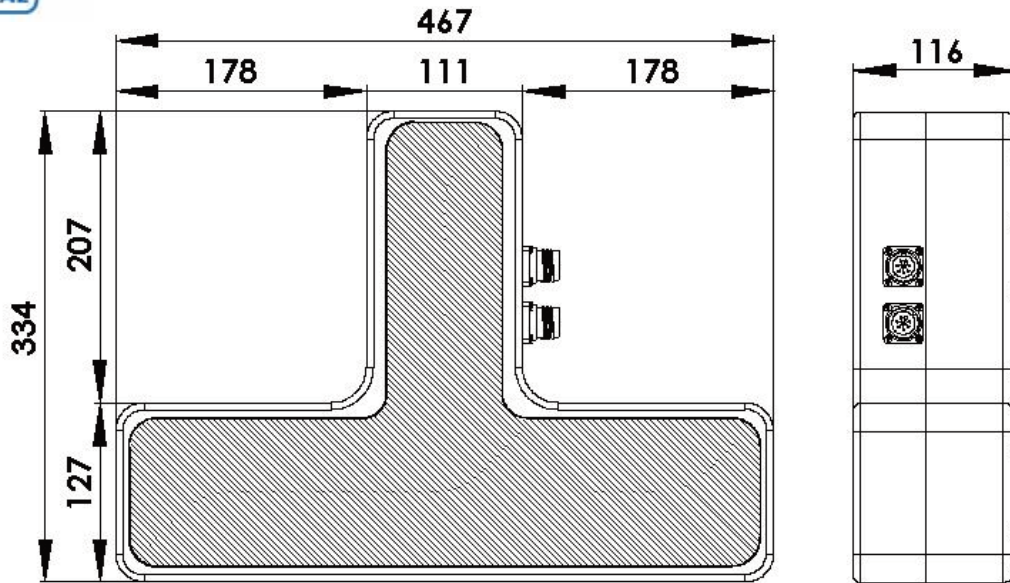
The Horizon sonar contains both the transmitter and receiver transducers in a single robust housing. It can be deployed on a ROV or AUV for deep water survey operations. In shallow water, Horizon can be mobilised on a vessel to gather high quality data sets at depths down to 120m.

Horizon has a wide swath sector of 120°. Where required, two Horizon sonar heads can be linked together to create a dual-head system for maximum swath coverage. Extremely fast ping rates of up to 100Hz allow Horizon to be used for higher speed survey operations, without compromising along-track data density.

The Horizon system includes a surface processing unit and software to control the sonar and display the digitised data points. Data can also be exported in real time via a network connection to third party hydrographic software packages which accept R-Theta (Range – Angle) or RI-Theta (Range, Intensity, Angle) formats. Input of Horizon data to the third party software package can be time synchronised using Pulse Per Second (PPS) and NMEA ZDA string input from a GPS receiver.

An additional feature of Horizon is the ability to pitch correct the transmit energy when motion sensor data is available. The transmit angle will be adjusted in real time to compensate for motion on the ROV or vessel.





All dimensions in mm

SPECIFICATION

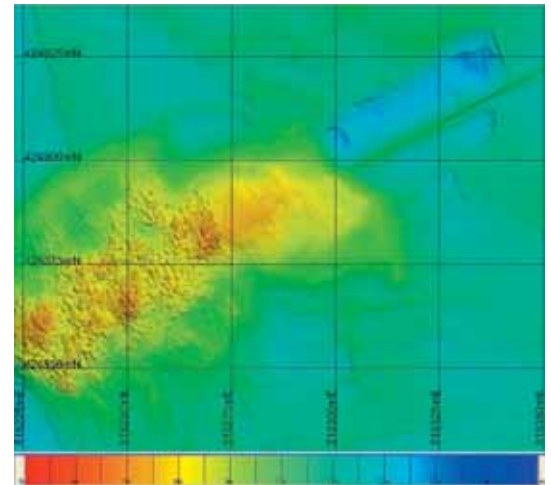
| | |
|------------------------------|--------------|
| Operating Frequency | 240kHz |
| Across Track Resolution | 0.75° |
| Along Track Resolution | 1.5° |
| Range Resolution | 5mm (0.197") |
| Effective Angular Resolution | 0.5° |
| Range | 120m (395ft) |
| Minimum Focus Distance | 0.4m (1.3ft) |
| Beam Width | 120° |
| Number of beams | 256 |
| Max Ping/Update Rate | 100Hz |

INTERFACE

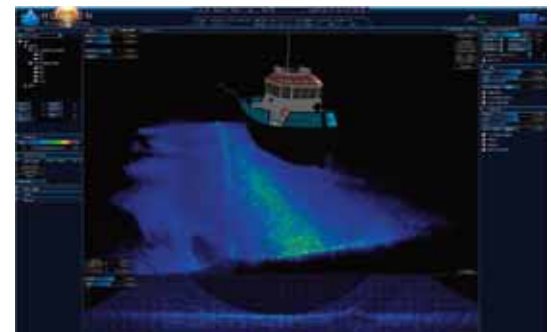
| | |
|-------------------|---------------------|
| Power Consumption | 60W |
| Supply Voltage | 18-36VDC |
| Comms | Ethernet (100baseT) |

MECHANICAL

| | |
|-----------------|--------------------|
| Connector Type | Impulse MHDG-8-FCR |
| Depth Rating | 2500m (8202ft) |
| Weight in air | 20Kg (44lb) |
| Weight in water | 10Kg (22lb) |
| Width | 467mm (18.39") |
| Height | 334mm (13.15") |
| Depth | 116mm (4.57") |
| Material | Anodised aluminium |



Third party software terrain map from Horizon data, showing rock dump and exposed pipeline.



Horizon software real time waterfall display.

All specifications are subject to change in line with Tritech's policy of continual product development.

Ref: EDS-MLT-003.1

Tritech International Limited

Peregrine Road • Westhill Business Park • Aberdeen
AB32 6JL • United Kingdom

T: +44 (0)1224 744111 F: +44 (0)1224 741771

E-mail: sales@tritech.co.uk
Website: www.tritech.co.uk

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