



TRIDENT DEEPBLUE COMBINED RECEIVER

Product Overview

Trident DeepBlue is the worlds ONLY High Resolution Digital ROV subsea pig tracking Receiver. It is also unique in that it can detect both Acoustic & Electromagnetic pig tracking devices.

This ability to perform both conventional types of pig tracking with one unit, allows for reduced ROV installation time and complexity.

Data from the DeepBlue is transmitted through the ROV multiplexer via Ethernet (or RS232) to the surface for real-time analysis. This real-time data is analysed by using the Trident PigView software giving the ability to detect multiple pigs on multiple frequencies.

Instruments

The Trident DeepBlue can capture signals by using any ONE (or ALL) of the following instruments:

1. Trident 410 Directional Acoustic Hydrophone
2. Trident 430 Omni - Directional Acoustic Hydrophone
3. Trident 510 Electromagnetic Antenna

Key Features

- Worlds ONLY Combined Acoustic & EM Detection in ONE unit
- Supports both Ethernet & RS232 in ONE unit
- Digital Processing for Multiple Pig Tracking
- Safety PRV - Internal 10PSI Over Pressure

Trident DeepBlue ROV Receiver



Trident 510 EM Antenna

Trident 410 Directional Acoustic Hydrophone



TRIDENT COMBINED DEEPBLUE

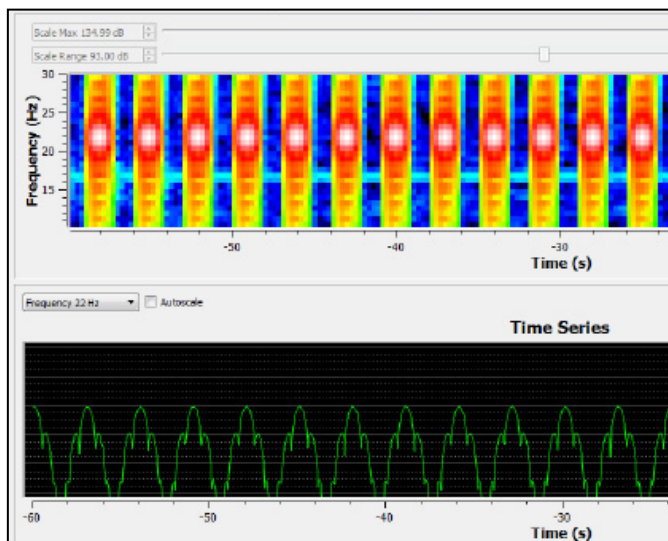
Technical Specification

Housing Material	Stainless Steel
Length	280mm
Diameter	185mm
Weight	12.5kg
Operating Depth	3000m
Power Source	+24V to +48V
Operating Temperature Range	-5°C to +50°C
Signal Output	RS232 or Ethernet
Input Connector Type	8 Way Micro Sub-Con
Output Connector Type	To match ROV Connection
Pressure Relief Valve	10 PSI

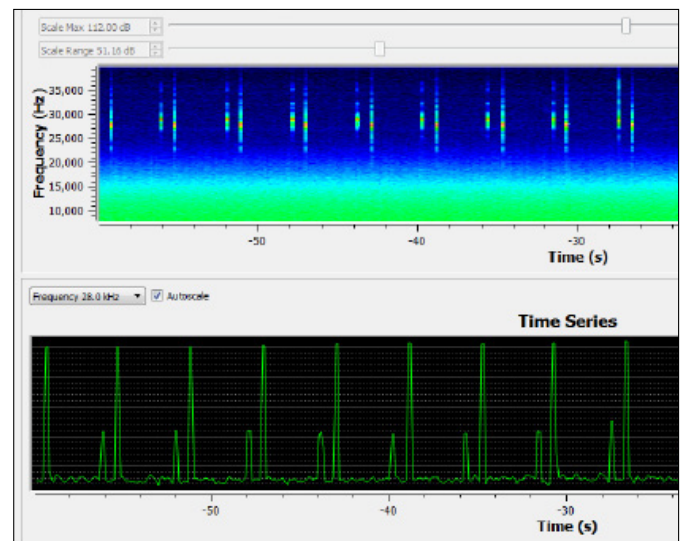


The Trident PigView software analyses the real time data received by the DeepBlue, examples can be seen below:

Typical EM Signal



Typical Acoustic Signal





TRIDENT 430 HYDROPHONE

Product Overview

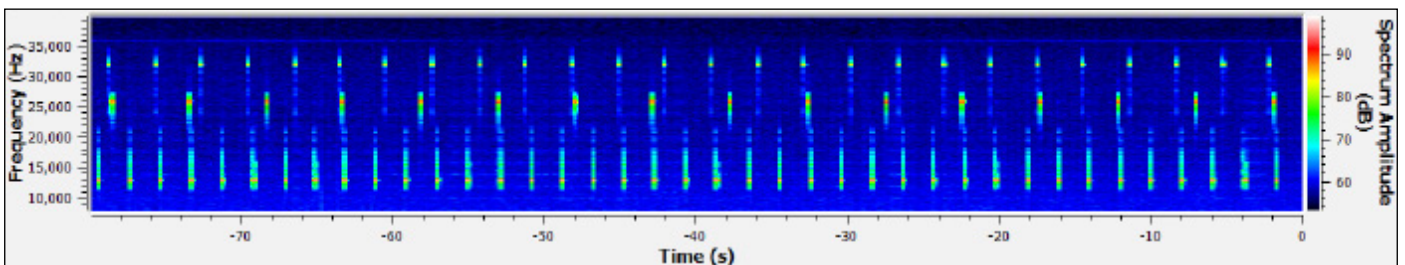
The Trident 430 Omni-Directional Acoustic Hydrophone can be used with the Trident DeepBlue Receiver to assist with acoustic device tracking & location subsea. Its primary function is for multiple pig tracking, however the instrument can also be used for acoustic devices (ROV Beacons etc).

When combined with the Trident DeepBlue Digital ROV Receiver, the Omni-Directional Hydrophone captures a full spectrum of acoustic noise (in all directions). The 430 Hydrophone can be mounted directly on to the Receiver using MCILF Connector OR anywhere by using an 8 way cable.



Technical Specification

Housing Material	Rigid PVC / Polyurethane
Length	198.0mm
Diameter	33.0mm
Weight	2kg
Operating Frequency	8kHz to 50kHz
Sensitivity	-200 db re 1V/uPa
Operating Temperature Range	-40°C to +70°C
Connector Type	8 Way Micro Sub-Con



Typical Multiple Acoustic Signals Detected by PigView Software





TRIDENT 510 EM ANTENNA

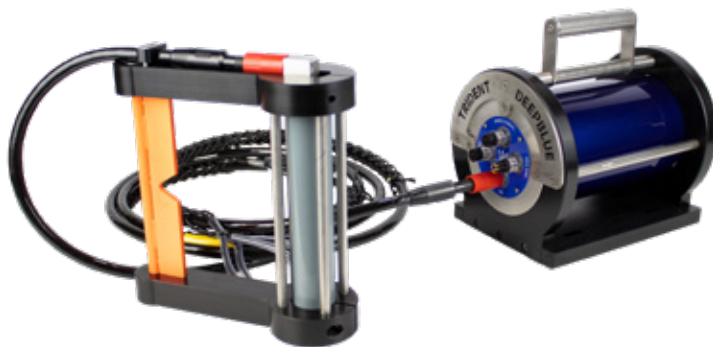
Product Overview

The Trident 510 is an Electromagnetic Antenna which is designed for use on ROV's or by Divers (Standalone) to accurately detect and locate pigs fitted with EM Transmitters. When combined with the Trident DeepBlue ROV Receiver, the system is capable of detecting multiple pigs on separate frequencies.

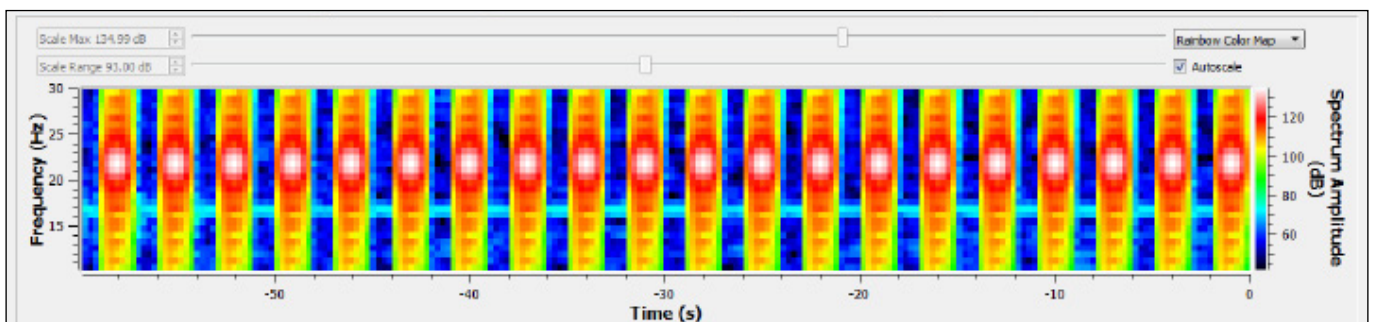
The Antenna can be used to track & accurately position ANY transmitter by using the device in TWO orientations.

- 1. Parallel to the pipeline:** To track and provide the approximate position of the pig AND also to witness pig passage.
- 2. Perpendicular to the pipeline:** This will provide a more accurate position of the pig by finding the 'Null Spot' of the EM transmission (i.e centre of the transmitter).

Technical Specification



Housing Material	Composite / SS316
Length	252.0mm
Diameter	70.0mm
Weight	3.5kg
Operating Depth	3000m
Operating Frequency	8Hz to 30Hz
Operating Temperature Range	-5°C to +50°C
Connector Type	8 Way Micro Sub-Con



Typical EM Signal Detected by PigView Software

