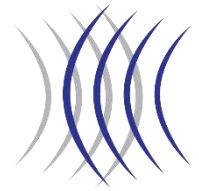


# Pulsar

## High Resolution Side Scan Sonar



GeoAcoustics



### Overview

Pulsar acquires high resolution acoustic images of the seabed by using a rugged tow fish that can be easily operated from a water-protected deck unit and connected computer. Large areas can be surveyed efficiently, revealing small objects and underwater structures in great detail. It is ideal for search and recovery operations, underwater inspection as well as engineering and scientific surveys.

The Pulsar system is designed for both simple deployment and intuitive operation. The system can be operated by non-specialist personnel to quickly carry out effective surveys. Operating within a single frequency in the 550 kHz to 1 MHz range, both FM or CW pulses can be selected to optimise range and resolution for the survey task.

The system is delivered with a dedicated software package to run on any suitable laptop computer connected via Ethernet to the deck unit. It allows the user to plan and conduct the survey and acquire sonar data with embedded positioning information. The data can be visualised processed and analysed in real time before being exported, in industry standard formats, for further processing and interpretation as required.

### Key Features

- Easy deployment and operation.
- 550 kHz – 1 MHz frequency range.
- Wide bandwidth FM and CW pulses.
- Integrated RTCM/SBAS GPC Module.
- Compact, IP-66 rated, water-protected deck unit.
- Dedicated Pulsar acquisition and processing software
- Coaxial, low-drag, Kevlar enforced cable

### Applications

- Search and recovery operations
- Hydrographic surveys
- Object detection and identification
- Inspection and engineering
- Marine geology
- Marine archaeology



## Technical Specifications

### Performance

<b>Maximum Range at 550 kHz</b>	100 m in CW mode 150 m in FM mode
<b>Beam Pattern (typical)</b>	50° x 0.5°
<b>Pulse Repetition Rate</b>	25 PPS at 30 m range 5 PPS at 200 m range
<b>Max Resolution (across track)</b>	10 mm
<b>Max Resolution (along track)</b>	0.07 m at 10 m range 0.35 m at 50 m range 0.69 m at 100 m range
<b>Max Cable Length</b>	300 m

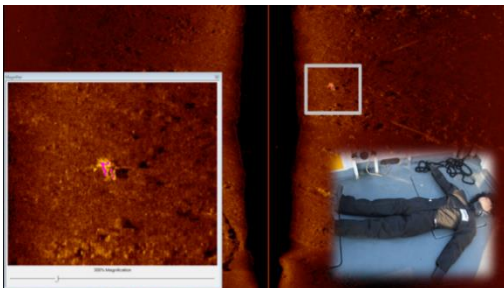
### Towfish

<b>Body</b>	Stainless Steel
<b>Dimensions</b>	1100 mm (L) x 90 mm diameter tail fin: 75 mm (L)
<b>Weight</b>	16.5 kg
<b>Tow Speed (Knots)</b>	1 – 12 knots
<b>Source Level</b>	223 ± 3 dB re 1 µPa @ 1 m
<b>Sensitivity</b>	-190 dB re 1V/µPa
<b>Depression Angle</b>	30°

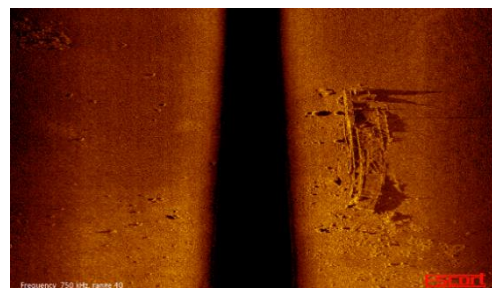
### Deck Unit

<b>Power Requirements</b>	10-30 V <sub>DC</sub> , 43 W max 110/230 V <sub>AC</sub> , 50-60 Hz, 50 W max
<b>Dimensions</b>	200mm (D) x 300 mm (W) x 85 mm (H)
<b>Weight</b>	5 kg
<b>Storage Temperature</b>	-20 °C to 70 °C
<b>Operating Temperature</b>	0 °C - 40 °C
<b>Humidity</b>	10 % to 90 % RH non- condensing IP64-Rated

Specifications subject to change without notice. E&OE



Search and Recovery Exercise – 40 m @  
700 kHz CW, 18.57 pps.



Shipwreck. 750 kHz at 40 m range.