

Cerulean Sonar

Advance Technology. Sensibly Priced

Acoustic Devices for Underwater Vehicles



ROV LOCATOR

Finally an underwater positioning system that doesn't cost more than the vehicle! The ROV Locator comprises a pinger mounted on the ROV and a USBL receiver module on the surface. Sync them up at the start of the dive and track the ROV location in real time on the QGroundControl map display.

ROV LOCATOR

- Designed for Low cost, medium accuracy localization of underwater objects
- A system that can be used to guide an ROV to an area of interest, either manually or autonomously
- A system that can be used to locate an ROV
- Other applications are also possible



Transmitter

("Transponder" in traditional USBL system)



Receiver

("Transceiver" in traditional USBL system)

A complete system requires both a transmitter and a receiver. After calibration, transmitters are paired with specific receivers and should not be interchanged.

The system works by syncing the clocks of a transmitter and receiver. The transmitter then sends a sound pulse once per second. The receiver uses time-of-flight to calculate slant range to the transmitter, and phase measurements to determine the arrival angle of the sound pulse.

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General Specifications

Maximum Depth	100m
Volume, Receiver Unit	295 ml
Mass, Receiver Unit	278 gm
Volume, Transmitter Unit	295 ml
Mass, Transmitter Unit	320 gm
Absolute Maximum Range	1 km
Typical Usable Range	300 m
Apparent Yaw/Azimuth resolution	1°
Apparent Elevation angle resolution	1°
Slant range measurement resolution	0.1 m
Slant range error accumulation resolution (typical)	2 m/hr
IMU Euler angle accuracy, typical (magnetic errors not included)	2°
Update rate	1 Hz
Ping Frequency	25 kHz
Receiver V-in power	4.5V to 28V DC <1 Watt
Transmitter V-in power	4.5V to 28V DC <1 Watt

Resolution does not equal Accuracy!

