

# Peacock - UVP

The multi-purpose module for velocity and echo profiling

OEM Ultrasonic Velocity Profile Measurement for Process and Environmental Monitoring

## Features

- Velocity and backscattered acoustic intensity measurement by pulsed coherent Doppler
- A complete UVP in a single high reliable board
- Very **small size** and **low weight** for embedded applications
- Very **low power** consumption
- **High quality** measurements
- Embedded processor for automatic gain control, static echo filter



## Applications



- Embedded applications (drones, AUV, robots...)...
- Flow mapping in small rivers and open channels
- Bathymetry in rivers and lakes down to 10 m
- Industrial fluid processing

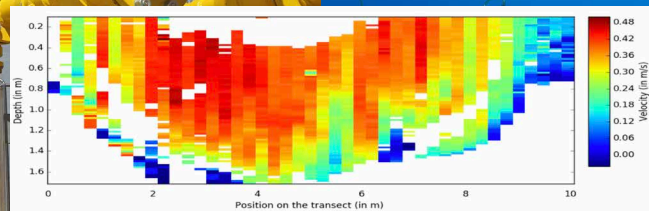
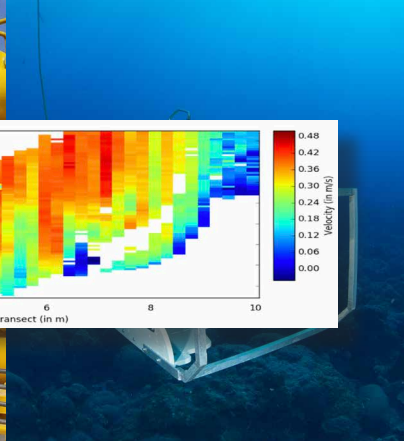
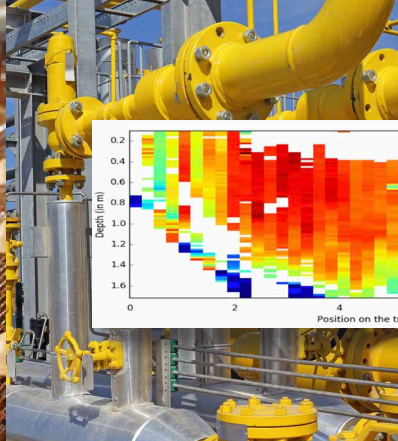
Our devices are available for rent, for lease and for sale.

## Contact



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# UBERTONE



## Technical specifications

### Measurement Performances

Sampling range	0.05 to 10 m
Number of cells	1 to 200
Cell size / resolution	0.20 to 30 mm / down to 0.73 mm
Velocity range	[-4; 4] m/s (under Nyquist condition)
Velocity accuracy	0.2 to 1%
Sampling rates	Up to 20 Hz
Signal processing	Coherent Doppler with phase coding
Temperature sensor and accelerometer for pitch and roll measurement	

### Acoustics

Number of channels	2 for transducers in emission/reception
Frequency range	400 kHz to 3.6 MHz
Beam width	1.5° to 6° (depending on the transducer and on the emitting frequency)

### Physical

Dimensions	85 x 21 x 17 mm <sup>2</sup>
Weight	14 g

### Data Management

Communication	Modbus protocol over RS485 or USB
Internal data logger	NA (optional : logger, GSM modem, Wifi, Bluetooth)
Velocity	Velocity profile data (relative to acoustic beam directions) per beam and cell
Echo amplitude	Backscattered echo RMS amplitude per beam and cell
Velocity standard deviation	Standard deviation of the velocity per beam and cell
Data quality	Profile data quality indicator per beam and cell

### Power

Input	5V DC $\pm$ 10%
Consumption	0.5 to 1W
ON/OFF LED	0.6 s

