

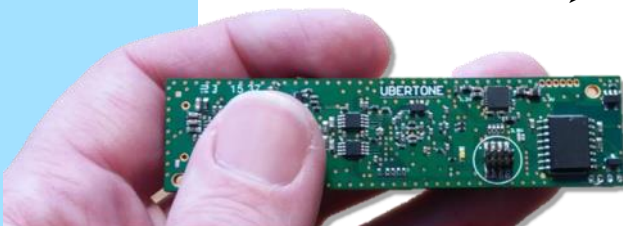
# Peacock UVP

the multi-purpose module  
for velocity and echo profiling

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

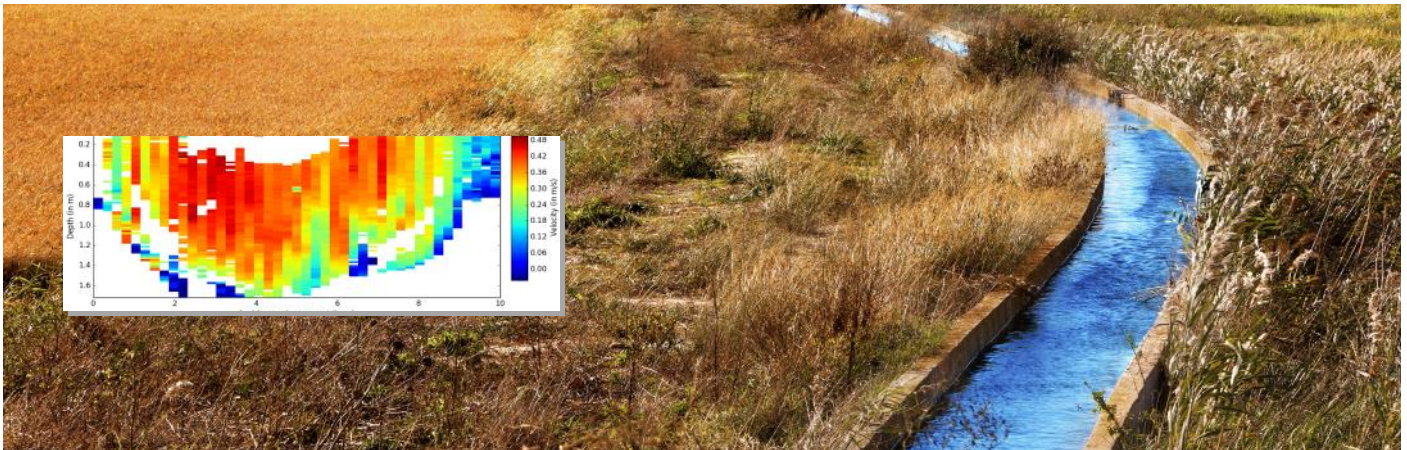
## Contact



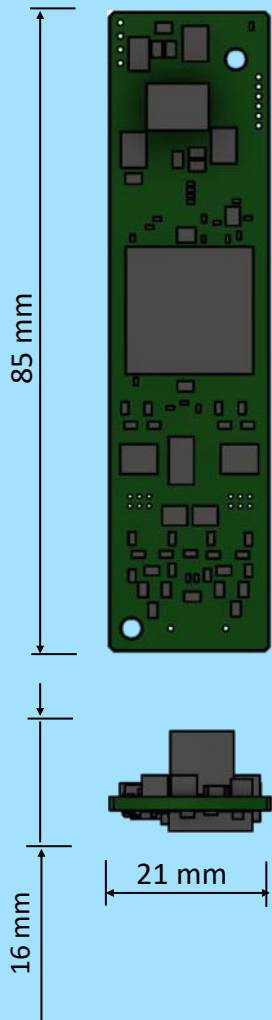
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## Technical specifications



Measurement Performances	
Sampling range	0.005 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 to 4] m/s (under Nyquist condition)
Velocity accuracy	0.2 to 1%
Sampling rate	Up to 5 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
Physical	
Dimensions	21 x 85 mm
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 % (optional battery adaptor 3 to 12 V)
Consumption	0.5 to 1 W
Power up	0.6 s