

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



UBERTONE S.A.S.
8A, rue Principale
67300 Schiltigheim - FRANCE
+33(0) 367 100 883 - www.ubertone.com
info@ubertone.fr

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 ² |
| Weight | 23 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 |

