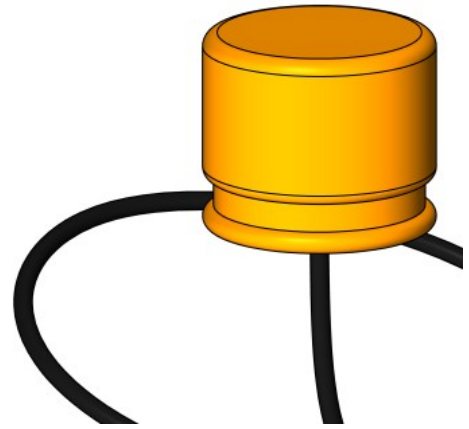


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uWAVE Underwater acoustic
modem specifications

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KEY FEATURES

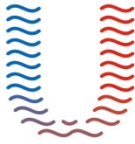
- Extremely small size and weight
- Simultaneous data transmission & USBL navigation
- Reliable data transmission with 78 bit/s
- Operating range up to 3000¹ m
- Subscribers code division
- Propagation time measurement
- Reliable and noise-immune technology of digital broadband acoustic communication
- Low power consumption (Rx/Tx) 0.33/6 W
- Open & easy interfacing protocol
- Built-in depth/temperature sensor

Using **uWAVE Max**, the user can:

- transfer arbitrary user data between **uWAVE USBL Modem**, **uWAVE Max** and **uWAVE** modems in any combination;
- transmit up to 9 short code telecontrol user commands;
- request from remote modems **uWAVE USBL Modem**, **uWAVE Max** and **uWAVE** their depth, temperature and voltage;
- measure own depth, temperature and voltage;

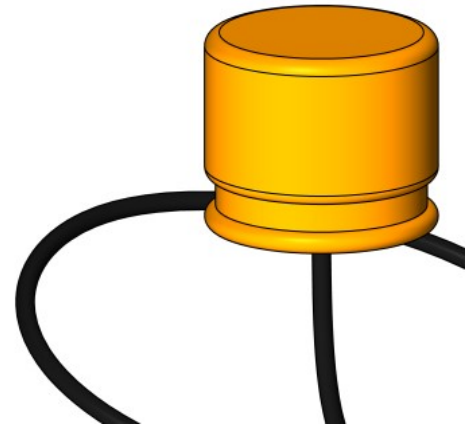
uWAVE family devices use a simple open NMEA-like configuration protocol, and the supplied open-source **uWAVELib** library allows for the fastest and easiest integration of devices into user solutions.

¹ While working with uWAVE USBL Modem or uWAVE Max. Max operating range with uWAVE modems is 1000 m.



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TECHNICAL SPECIFICATIONS

DIMENSIONS (Φ x h)	64 x 62 mm
WEIGHT (dry)	0.36 kg
DEPTH RATING	300 m
MAX OPERATING RANGE	3000² m
PAYLOAD DATA RATE	78 bit/s
POWER CONSUMPTION Rx/Tx	0.33/6 W
POWER SUPPLY³	5..12 V
DATA LINES VOLTAGE	0 .. 3.3 V
FREQUENCY BAND	10 .. 30 kHz
BIT ERROR RATE	10⁻⁶
SNR⁴	-2 dB
MAX RELATIVE VELOCITY	+/- 1 m/s
RATED START-UP TIME	100 ms
OPERATING TEMPERATURE RANGE	-5 .. 50 °C
INTERFACE⁵	UART 9600 bit/s
CONFIGURATION PROTOCOL	NMEA 0183 PUWV
CABLE LENGTH⁶	0.5 m
SUBSCRIBERS CODE DIVISION	20 code channels
COMMAND MODE	16 predefined messages (9 for user applications)

² While working with uWAVE USBL Modem or uWAVE Max. Max operating range with uWAVE modems is 1000 m.

³ Maximum output power can be achieved with 12V power supply

⁴ This value is obtained without the presence of the multipath effect

⁵ Port speed can be changed by special request

⁶ Length can be increased by special request