



AquaComm is available in 100 bit/sec and 480 bit/sec versions and in two forms:

- OEM: AquaComm modem module for integrating into an OEM's housing
- Encased: AquaComm modem module encased in AquaCase

Detailed technical specifications:

Parameter	Details
Data rates	100 or 480 bits per second depending on model
Bit Error Rate	10^{-6} bit error rate or better
Acoustic Doppler Tolerance	High immunity to noise and to multi-path and Doppler fading. Acoustic Doppler tolerance of +/- 5ms-1
Bandwidth	Broadband operation 16Khz to 30Khz
Range	Tested to 3km range. Longer ranges possible
Modulation	Direct sequence spread spectrum / OFDM
Error detection	CRC16 error detection
Through water communications protocol	Confirmed packet delivery with error detection. If the transmitting end does not receive an acknowledgement, it will resend the data two more times. Number of retries is configurable.
Addressing	Uniquely addressable. Six digit numeric address set through host command.
Receive sensitivity	Ability to set the receive sensitivity
Transmit power	Ability to set the transmit power level
Physical size	8cm x 7cm x 1.5cm (excluding transformer)
Electronics	Digital signal processor based
Power supply input voltage	DC 5V to 9V
Current consumption @ 6V DC	42mA (nominal) in normal wake operation 4.2mA in power save receive Less than 150uA in sleep model
External connections	10 pin KK header to connect power, host communications, reset line and wake up line 2 pin terminal to connect hydrophone transducer
Host communications	RS232 serial communications. 9600 baud (default), 1 start bit, 1 stop bit, no parity 4800, 2400 or 1200 baud programmable Either TTL voltage levels (3.3V) or RS232 voltage levels selectable
Host command	Simple ASCII command set to configure and command the modem
Temperature range	-5 degC to +50 degC