SUBNERO S60H SERIES MODEMS

High speed software-defined smart modems enabling new applications

KEY FEATURES

- Up to 33 kbps data rate in shallow waters
- Up to 1 km communication range
- Deep sleep state with <1 mW power consumption
- Supports localization & ranging with 0.1 m precision Support for arbitrary waveform transmission and recordings
- Enhanced performance with additional receiving channels

APPLICATIONS

- AUV command & control, telemetry, payloads (Ripple)
- Realtime wireless image transfer
- ADCP data retrieval (SWIS - ADCP Edition)
- Diver communication and localization
- Underwater Networks

HIGH PERFORMANCE

Operate with data rates up to 33 kbps or communication ranges over a kilometer in shallow waters

SOFTWARE-DEFINED DESIGN

Unprecedented flexibility to allow in-field configuration to achieve application specific performance using UnetStack

BUILT-IN NETWORKING

Fully functional network stack for deploying large underwater networks

MULTI-CHANNEL OPTION

Enable spatial diversity combining, localization and acoustic monitoring with additional receiving channels

HOVERING AUVS & SENSORS

Addressing the ever increasing need for high speed sensor payload transfer for hovering AUVs and sensors

OPTIONAL UPGRADES

A plethora of optional upgrades and accessories to suit your application's needs

TECHNICAL SPECIFICATIONS

FEATURES	DETAILS
Modem	Subnero S60H Series Modem
Data rate	Up to 33 kbps (depending on channel conditions)
Operating range	Up to 1 km (depending on channel conditions)
Ranging precision	0.1 m
Doppler resilience	±4 knots or better
Modulation (sw-defined)	PSK-OFDM, FH-BFSK
Forward error correction	LDPC, BCH, Convolution code, 1/2 rate code (JANUS)
Carrier frequency	60 kHz
Bandwidth	25 kHz (45 - 70 kHz)
Software framework	UnetStack, www.unetstack.net
Software interface	Java, Groovy, Python, C, Javascript, Julia, web UI, JSON/TCP
Waveform player	Transmission and reception, passband and baseband
Hardware interface	Ethernet (10/100 Mbps), RS232, power
Power consumption	< 4 W (receive mode, nominal) < 45 W (transmit mode, avg.) < 1 mW (deep sleep mode)
Power source	External power: 22-28 V DC (24 V DC recommended)
Onboard storage	32 GB (upgradable to 256 GB, 1 TB)
Operating depth	300m (Aluminum), 2000m (Stainless steel), 4000m, 6000m (Titanium)
Available editions	Silver
Available configurations	Standalone (SC), OEM (OC), Multi-channel
Dimensions	SC: ø 127 x 294 mm, OC: ø 100 x 132 mm
Weight (in air / water)	SC: 5.0 / 1.5 kg, OC: 0.8 kg / NA
Operating temperature	SC: 0 to 40 °C, OC: 0 to 70 °C (electronics) 0 to 40 °C (transducer)

Get in touch now

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