SUBNERO

SUBNERO UNDERWATER MODEMS FOR AUVs

Designed with ease of integration and flexibility as the primary focus, Subnero Underwater Modems are ideal for integration to underwater platforms (AUVs, ROVs). Software defined communications platform enables a wide variety of use cases and applications.

DESIGNED FOR AUVs

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MULTIPLE INTERFACE SUPPORT

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SOFTWARE DEFINED

EXTENSIVELY TESTED

NAVIGATIONAL ASSISTANCE

HIGHLY MODULAR DESIGN

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SPECIFICATIONS

GENERAL	
Data rate	0.5 kbps (control link) up to15 kbps (data link)
Communication range	up to 3 km (nominal, depending on channel conditions)
Ranging precision	0.1 m
Doppler resillience	up to 4 knots
Software framework	UnetStack (software defined), www.unetstack.net
PHYSICAL	
Operating depth	up to 300 m
Dimensions	100 mm ø, 200 mm length (excluding transducer) Cylindrical form factor
INTERFACE	
Connectivity	RS232, Ethernet, acoustic commands
Software interface	UnetStack agents (Java, Groovy, Python), interactive web UI, Linux sockets, JSON/TCP
Network stack	UnetStack (Java/Groovy/Python agents)
POWER	
Power supply	24 VDC (external)
ACOUSTIC	
Carrier frequency	25 kHz (typical)
Bandwidth	up to $^2/_3$ carrier frequency
Source level	Max. 185 dB re 1 µPa @ 1m rms
Modulation (software defined)	PSK-OFDM, incoherent OFDM, FH-BFSK, JANUS (subject to operating frequency band)

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