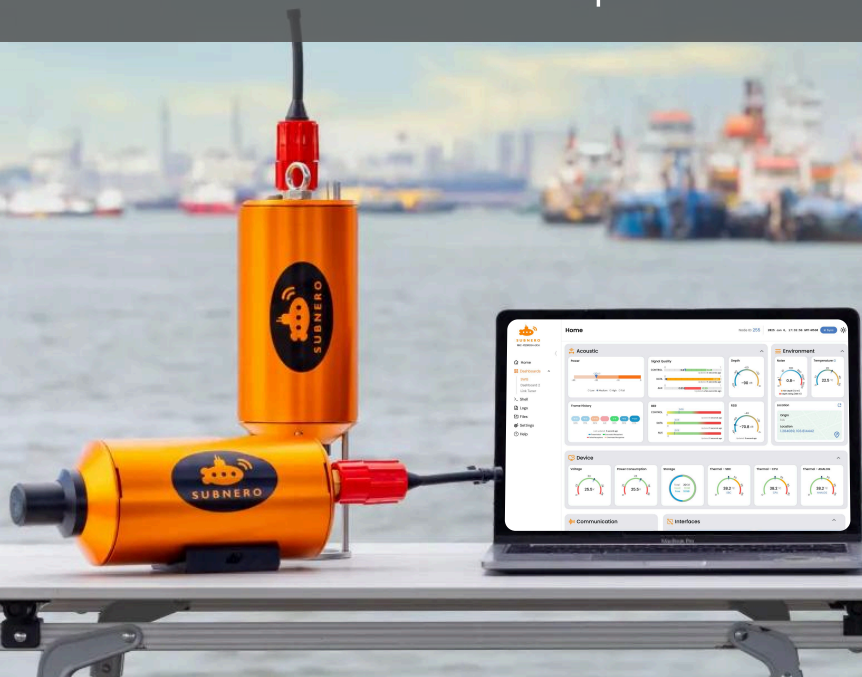# SUBNERO S40H SERIES MODEMS

### High-speed connectivity for data-intensive underwater applications

## APPLICATIONS

✔ Wireless image transfer for inspection and monitoring systems

✔ High-speed data offload from subsea instruments, AUVs, or sensor arrays

✔ Near real-time connectivity for marine and subsea robots

✔ Short-range underwater IoT and testbed networks for research and development

⊙ **EXTREME PERFORMANCE**
Up to 33 kbps or ~1 km in challenging conditions.

⊙ **HYBRID AUVS & SENSORS**
Enabling high-speed data transfer for hybrid vehicles and sensors.

⊙ **SOFTWARE-DEFINED DESIGN**
Flexible, in-field configurable performance powered by UnetStack.

⊙ **BUILT-IN NETWORKING**
Integrated network stack for large-scale underwater networks.

⊙ **WIRELESS IMAGE TRANSFER**
Enables wireless camera image transfer with high-throughput capability.

⊙ **RESEARCH PLATFORM**
Ideal R&D platform for developing novel high-speed subsea algorithms and applications.

# S40H SERIES MODEMS

Designed for high-throughput data transfer, the S40H series modem enables applications that were once impractical in the subsea domain — such as wireless camera image transmission, rapid sensor data exchange, and real-time connectivity for marine robotics.

## TECHNICAL SPECIFICATION

### COMMUNICATION

| | |
|---|---|
| Modulation (software defined) | PSK-OFDM, FH-BFSK |
| FEC (Forward Error Correction) | LDPC, BCH, Convolution code |
| JANUS support | Yes |
| Bandwidth | 25 kHz (25 - 50 kHz) |

### SOFTWARE

| | |
|---|---|
| Framework | UnetStack |
| User Interface | Interactive web UI |
| Software Interfaces | Java, Groovy, Python, C, JavaScript, Julia, JSON/TCP |

### ELECTRICAL

| | |
|---|---|
| Power source | 18 - 30 VDC (24 VDC recommended) |
| Power consumption | < 4 W (receive mode, nominal) |
| | < 45 W (transmit mode, avg.) |
| | < 150 mW (sleep mode) |
| | < 1 mW (deep sleep mode) |
| Wake up modes | Acoustic wake up |
| | External electrical interrupt |
| | Scheduled wake up |
| External interface | Ethernet (10/100 Mbps), RS232 |
| On-board storage | 256 GB, 1 TB |

### MECHANICAL

| | |
|---|---|
| Hull material | Aluminum, Stainless steel |
| Depth rating | 300m, 2000m |
| Dimensions | SC: ø 100 x 294 mm, OC: ø 88 x 137 mm |
| Weight (in air / water) | SC: 2.0 / 0.8 kg, OC: 0.65 kg / NA |
| Available Configurations | Standalone Configuration (SC) |
| | Open Configuration (OC) |