SUBNERO

Gen4X Product Series

Wireless Networked Communication

The complete platform for underwater connectivity.

The WNC Product Series combines Subnero's acoustic smart modems, the industry-leading **UnetStack** software ecosystem, and modular configurations to address diverse underwater communication requirements.

L12L Series — low frequency
Long-range, acoustic communication for persistent presence.

M25M series — medium frequency
Versatile connectivity for diverse set of applications.

S40H series — high frequency
High-speed connectivity for data-intensive underwater applications.

UNMATCHED PERFORMANCE
From 33 kbps (HF) to 10 km Range (LF)

DEPLOYED ACROSS THE GLOBE
Versatile, scalable, and integration-ready

ADVANCED NETWORKING
Multi-hop, mesh, and managed networks

IDEAL R&D PLATFORM
Complete control over every aspect of the platform

ACOUSTIC SMART MODEMS

Performance for Every Environment

The Gen4X series spans three frequency bands, allowing you to prioritize speed, range, or a balance of both based on your mission requirements.

Feature	L12L Series (LF)	M25M Series (MF)	S40H Series (HF)
Best for	Long Range	General Purpose	High Speed
Communication Range*	> 10 km	> 4 km	> 1 km
Communication Speed*	Up to 8 kbps	Up to 15 kbps	Up to 33 kbps
Frequency	9 - 16 kHz	20 - 32 kHz	25 - 50 kHz

* Depending on channel conditions and reliability requirements.

EDITIONS

Flexible hardware options tailored to different missions, users, and deployment needs.

Platinum Edition. Ruggedized, MIL-standard performance for defense missions.

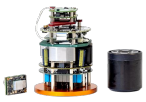
Silver Edition. The reliable workhorse for offshore, marine & subsea deployments.

Bronze Edition. Cost-effective platform for research and education.

CONFIGURATIONS

Configurations to support diverse deployment and performance scenarios.

Standalone Configuration (SC)
The ready-to-use option for simple deployments.



Open Configuration (OC)
The flexible choice for custom integrations.

PERFORMANCE UPGRADES

Maximize reliability and intelligence with additional receivers for spatial diversity and co-processors for onboard edge computing.

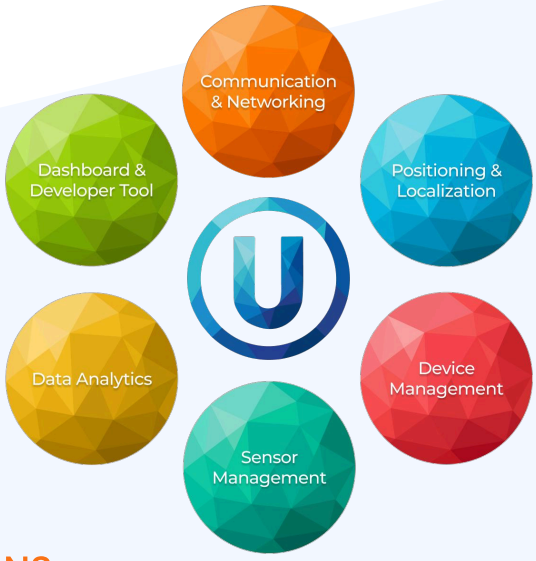
ACCESSORIES & OPTIONAL UPGRADES

Adapt to specific operational depths with Aluminium, Steel, or Titanium hull options, alongside expanded storage and specialized cabling.

THE UNETSTACK ECOSYSTEM

One Stack. Endless Possibilities.

A unified ecosystem that lets you simulate, build and deploy underwater communication systems.



UnetSim

Network Simulator

Fast, flexible simulator for developing, simulating, testing and refining subsea network protocols.

Virtual Acoustic Ocean

Hardware-in-the-Loop Simulator

Acoustic channel simulator that is part of the UnetStack ecosystem, to connect modems to physics-accurate underwater channel models.

UnetCube

OEM Development Platform

Embedded computing platform running UnetStack natively for developing your own modems.

EDITIONS

Community Edition

Free for education and research. Includes UnetSim.

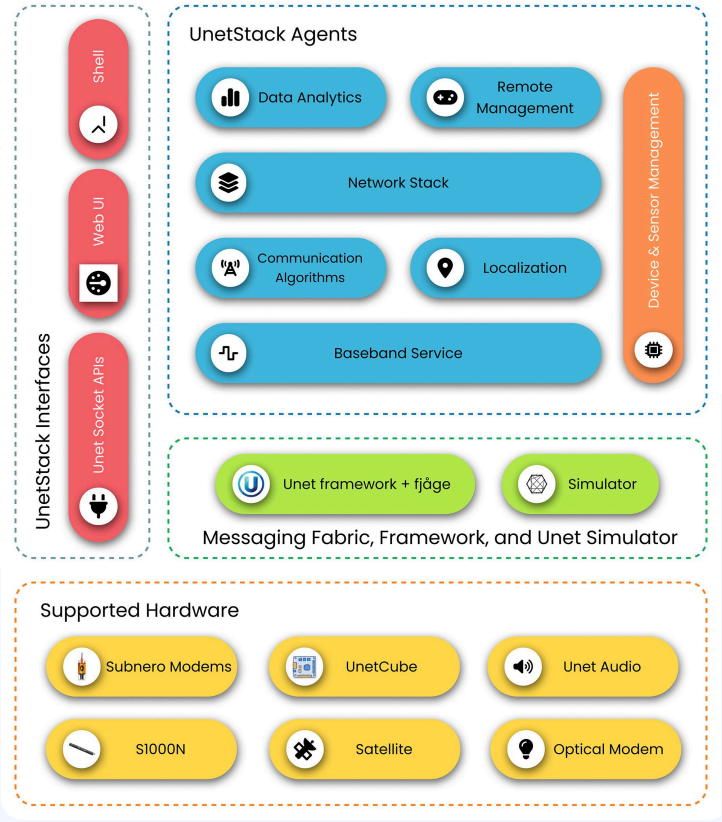
Commercial Edition

Advanced agents and support for commercial use

OEM Edition

Pre-installed on Subnero hardware for seamless integration.

COMPONENTS OF THE UNETSTACK ECOSYSTEM



The UnetStack ecosystem is built around the following three core pillars which together provide a complete foundation for developing, simulating, and deploying underwater and hybrid communication networks.

1. Messaging Fabric, Framework, and Unet Simulator
2. UnetStack Agents
3. Ecosystem Components

Learn more about UnetStack

POWERING THE BLUE ECONOMY

Enabling reliable underwater communication and seamless connectivity for ocean industries and subsea assets.

INDUSTRIES

Defense
MIL-standard reliability for mission-critical subsea communications.

Offshore, Marine & Subsea
Robust communication for demanding subsea operations.

Scientific Research
Flexible platform for underwater communication research.

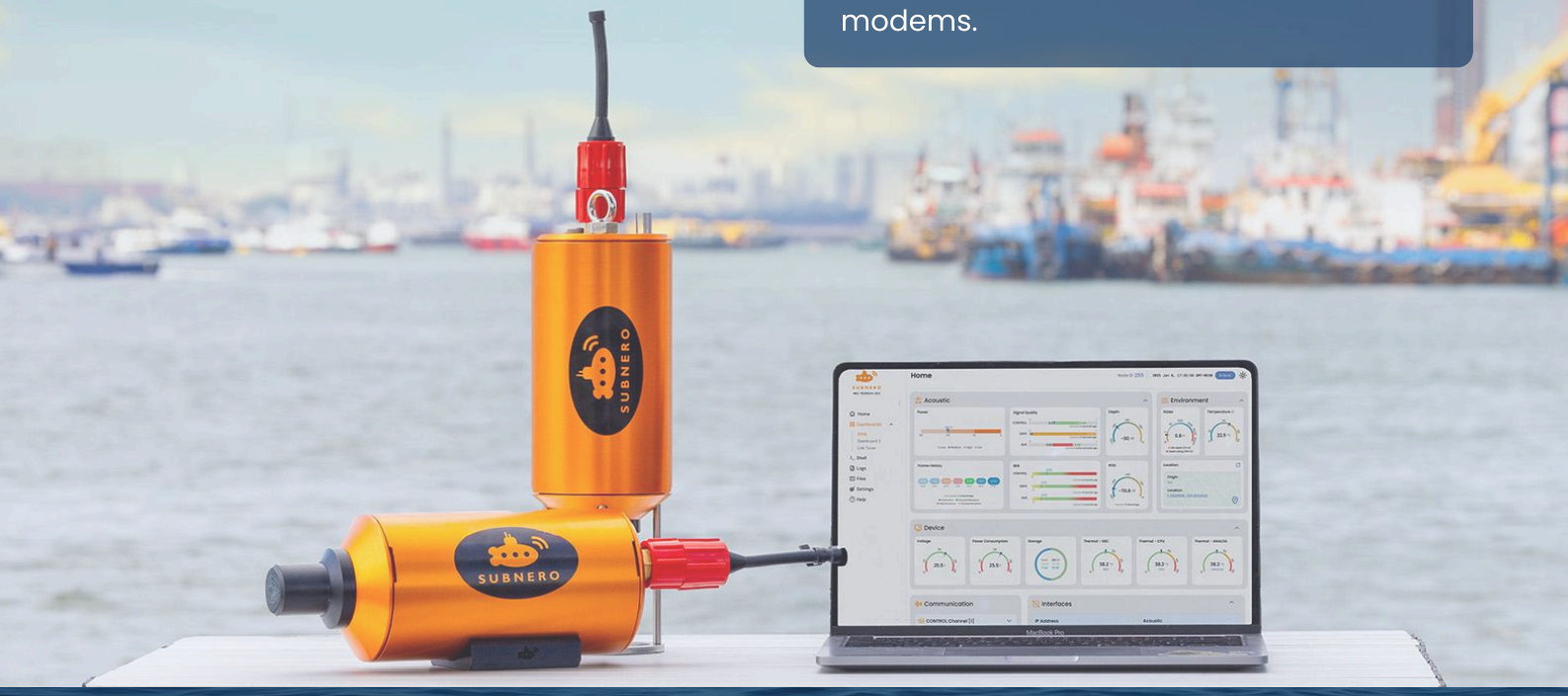
SUBSEA ASSETS & APPLICATIONS

Marine Robotics
Unified communication and data handling for underwater vehicles.

Underwater IoT
Integration-ready platform for scalable underwater sensor networks.

Diver Communication And Localization
Reliable diver communication and positioning for safe underwater operations.

Underwater Networks
Scalable underwater communication and positioning networks using smart modems.



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