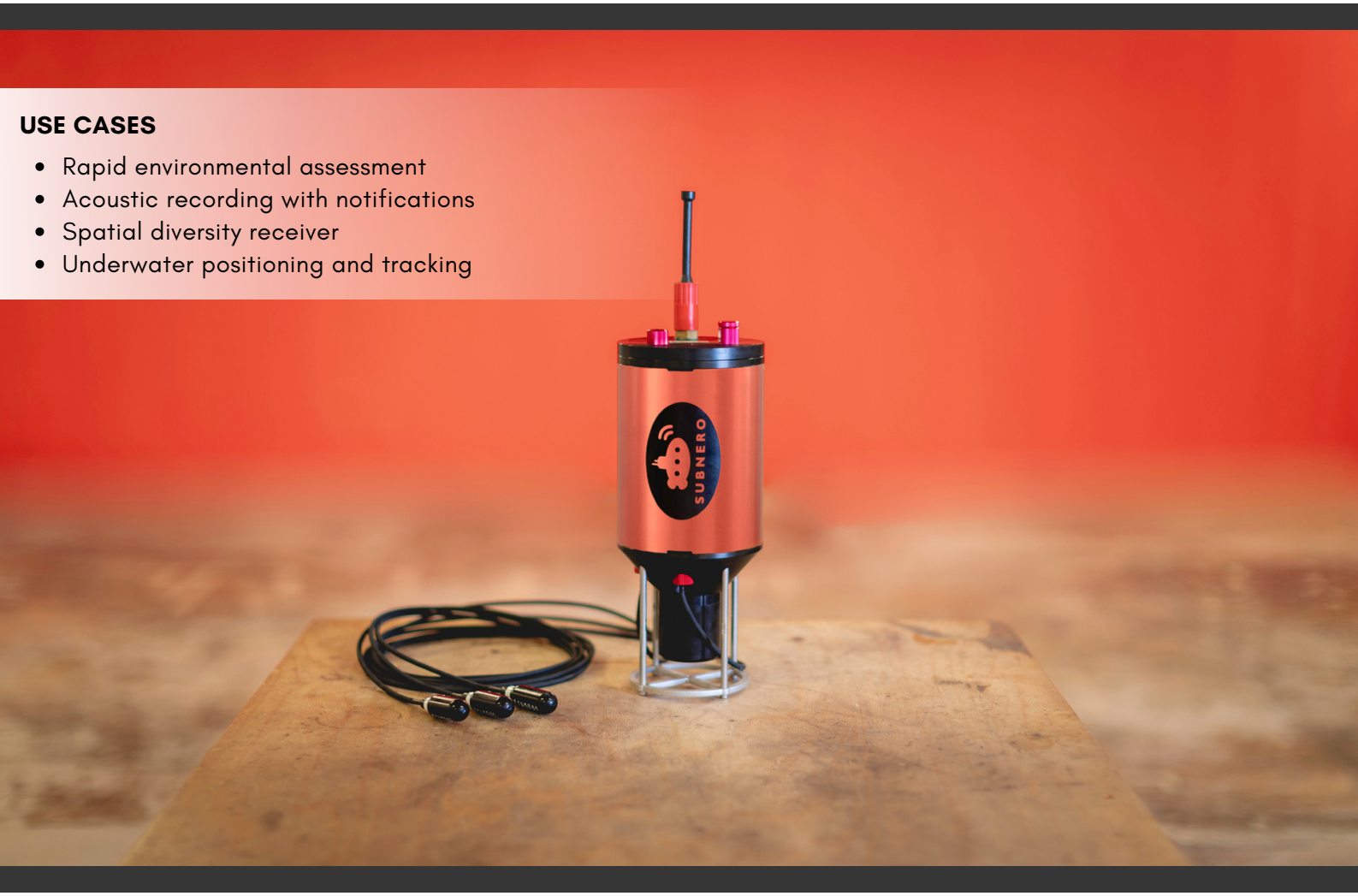
SUBNERO MULTI-CHANNEL MODEMS

Software-defined smart modems with multiple receiving channels



USE CASES

- Rapid environmental assessment
- Acoustic recording with notifications
- Spatial diversity receiver
- Underwater positioning and tracking

MULTI-CHANNEL RECORDING

The WNC series of modems offer a multi-channel configuration that enables users to utilize up to four synchronous receiving channels, with a sampling rate of either 96 kSa/s (M25M) or 256 kSa/s (S60H), making them a versatile acoustic recorder.

SPATIAL DIVERSITY RECEIVER

Since the receiving channels are synchronized, the multi-channel modems use spatial diversity combining techniques to decode frames received from remote modem, in real-time. This increases the effective communication performance by acting as a spatial diversity receiver.

3D POSITIONING & TRACKING

Equipped with sensors such as GPS, compass and a depth sensor, the multi-channel modems combine techniques such as time or phase difference of arrival with the data from these sensors, to provide three dimensional positioning and tracking underwater.

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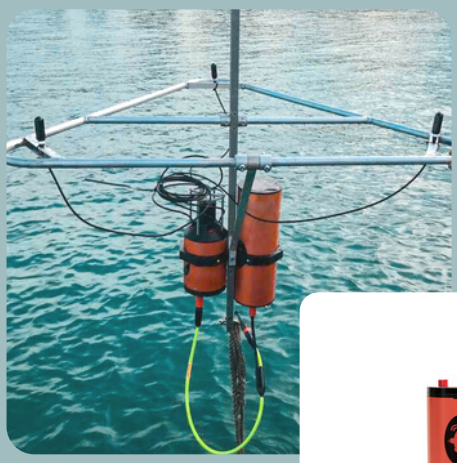

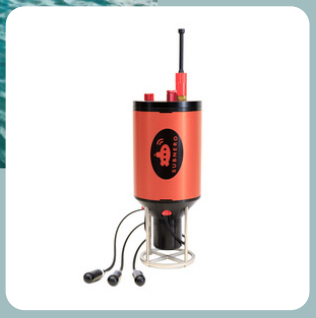

SILVER EDITION
MULTI-CHANNEL CONFIGURATION

WNC-M25MSS4+XCH, WNC-S60HSS4+XCH

Subnero's multi-channel modems, provide the capability to record synchronized signals from multiple hydrophones, in addition to the regular communication channel thereby enabling a plethora of new applications. Users can get direct access to raw data from all the channels in real-time, through UnetStack APIs.

KEY FEATURES

- Integrated Subnero silver edition modems.
- Up to 4 synchronized receiving channels.
- Scheduled and acoustic trigger-based recordings.
- Access to raw signals from all receiving channels.
- Ability to develop and deploy user-defined applications using UnetStack. Examples are:
  - Rapid environmental assessment.
  - Diversity combining techniques to enhance communication performance.
  - Positioning applications (e.g. USBL).

TECHNICAL SPECIFICATIONS

FEATURE	DETAILS
Modem	Subnero M25M, S60H Silver Edition Modem
Additional receiving channels	Up to 4
Sampling rate	96 kSa/s (M25M) or 256 kSa/s (S60H)
Fixed gain	10 dB
Programmable gain	36 dB
Power consumption	< 7 W (receive mode, nominal) < 45 W (transmit mode, average)
Dimensions	∅ 127 × 399 mm
Additional sensors*	GPS, AHRS

* Optional

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