

VERSATILE MULTI-HYDROPHONE RECORDER

Compact – Multichannel – Broadband



SIZE: 320 mm or 550 mm

Description

RESEA is a compact embedded recorder able to acquire up to four broadband hydrophones simultaneously

The acoustic recorder accepts both passive and pre-amplified active hydrophones. Its broadband analog inputs allow over 500 kHz with a dynamic range greater than 100 dB guaranteeing efficient signal to noise ratio.

The embedded digital signal processor allows high speed acquisition, filtering and storage.

In autonomous mode, data is stored whether on SD Card or hard drive.

In towed mode, data is stored then transferred via Ethernet. Its power consumption is between 600 mW to 2 W in active mode and less than 1 mW in sleep mode.

RESEA can be programmed with a mission schedule including date of beginning, sleep and record periods in order to improve battery life. The configuration and monitoring are facilitated through web browser interface.

RESEA exists in the size 1210 cm, for a better autonomy, equipped with two hydrophones.

Applications

- Noise impact studies
- Environmental monitoring
- Marine renewable energies
- Cetacean research
- Seismic / Shipping / Construction

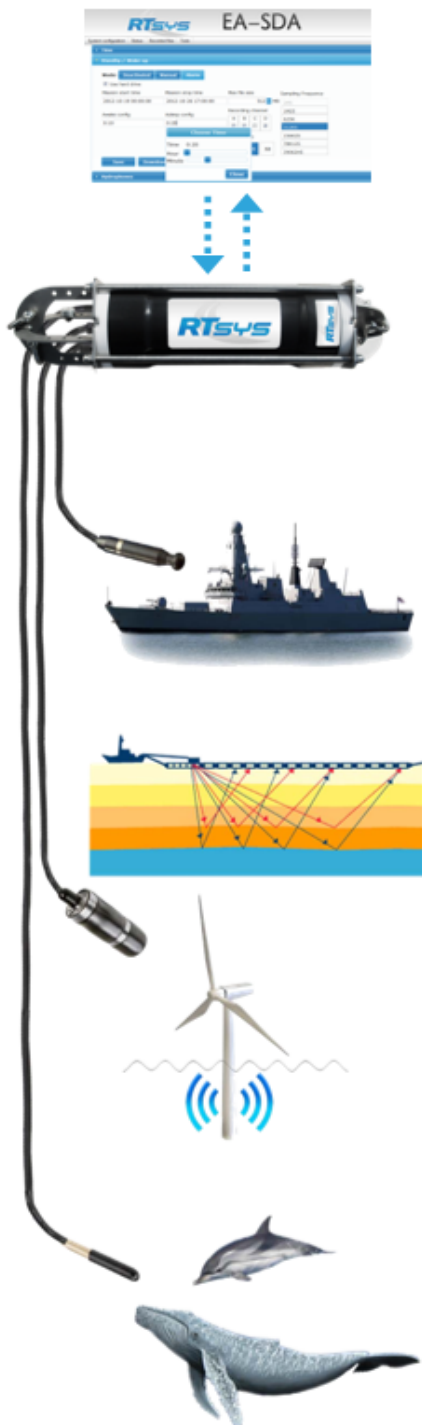
Options

- Interchangeable hydrophones
- GPS
- Temperature, Pressure, Conductivity
- Up to 2 TB memory on HDD
- Low power mode
- Rechargeable batteries
- Low frequency module
- Embedded processing

Characteristics

- **Multichannel:** up to 4 hydrophones inputs
- **Broadband:** from 3 Hz to over 500 kHz
- **Wide dynamic:** 24 bits recording
- **Versatile:** towed and autonomous modes
- **Easy to use:** intuitive embedded web interface

- Dim: D: 12 cm – L: 32 cm
- Weight: 5 kg in air – 2 kg in water
- Depth: 200 to 700 meters
- Power: 6 or 18 Alkaline or Li-SOCI2 D Cells + optional extension packs
- Storage: 128 or 256 GB SD Card, 1 TB SSD, 2 TB HDD



- **4 synchronized recording channels**

Channels are electronically synchronized and calibrated at +/- 0.1 dB.

Gains are electronically configurable on each channel between -10 dB and +24 dB. High pass filters are also configurable.

Hydrophones are easily plugged in and out from the RESEA recorder.

- **Broadband high data quality**

Eight recording frequencies going from 39 kHz to 1000 kHz are selectable. The RESEA can thus monitor noises and a frequency bandwidth going from 3 Hz to more than 500 kHz guaranteeing great dynamic and Signal to Noise Ratio (>100 dB).

This high SNR allows recording to strong and low level noise simultaneously.

Raw data are collected in 24 bits and stored in .wav standard format, directly compatible with processing software such as ©Matlab, ©LabVIEW and ©PAMguard.

RESEA recorders are equipped with DSP running Linux allowing integration of real-time data processing.

- **Towed and autonomous modes**

Light and compact, RESEA can be easily deployed by a single person.

In autonomous mode the recorder is programmed via a software application and then left into the water.

After the mission the RESEA is recovered and data is downloaded by Ethernet. (downloading speed: 7 MB/S)

In towed mode RESEA is directly connected to a computer through Ethernet connection. The user can thus monitor the missions and access the data in real-time.

- **Easy to Use**

The web browser interface gives intuitive access to configuration of the recorder and to the recorded files.

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