EA-SDA14

EMBEDDED ACOUSTIC RECORDER

Multichannel – Towed & Autonomous – Broadband

Description

EA-SDA14 is a compact embedded recorder able to acquire up to 4 broadband hydrophones simultaneously.

The EA-SDA14 Acoustic Recorder accepts both passive and pre-amplified active hydrophones. Its wide band analog input allows up to 1MHz with a dynamic range greater than 100dB 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 1,4W to 3W in active mode and less than 1mW in sleep mode.

EA-SDA14 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.

Applications

- **Noise impact studies**
- **Environmental Monitoring**
- **Marine Renewable Energies**
- **Cetacean Research**
- **Seismic / Shipping / Construction**

Options

- **Over 1 km towed distance via Modem**
- **Additional battery extensions for long stand alone deployments**
- **Up to 2TB memory extension on hard drive**
- **Temperature & Pressure**
- **Gyrometer & Magnetometer**
- **GPS data input**

Key Characteristics

- **Multichannel:** up to 4 hydrophones inputs
- **Broadband:** 3Hz up to 500KHz acquisition
- **Wide dynamic:** 24bits recording
- **Versatile:** Towed and Autonomous modes
- **Easy to use:** Intuitive Embedded Web Interface

Dimensions: 32cm long,
12cm in diameter
Weight: 5Kg in air, 2Kg in water
Depth: 100 meters / 700 meters
Power: 6 or 18 D cell batteries
+ optional external battery packs
Storage: 128GB SD Card, 512GB SSD, or 2TB hard-drive

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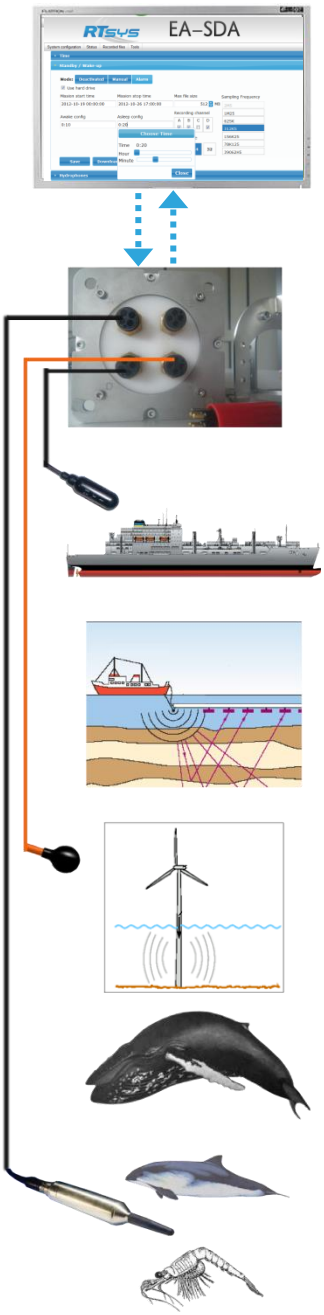

- **4 Synchronized recording channels**

Channels are electronically synchronized and calibrated at +/- 0.2dB.
Gains are electronically configurable on each channel between -4dB and +16dB.
High pass filters are also configurable.

Hydrophones are easily plugged in and out from the EA-SDA14 recorder.

- **Broadband & High-Quality Data**

Eight recording frequencies going from 39KHz to 2.5MHz are selectable. The EA-SDA14 can thus monitor noises and a frequency bandwidth going from 3Hz to more than 500KHz guaranteeing great dynamic and Signal to Noise Ratio (>100dB).
This high SNR allows recording to strong and low level noise simultaneously.
Raw data are collected in 24bits and stored in .WAV standard format.

EA-SDA14 recorders are equipped with DSP running Linux allowing to integrate real-time data processing.

- **Towed and Autonomous modes**

Light and compact, EA-SDA14 can be easily deployed by a single person.

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

After the mission the EA-SDA14 is recovered and data is downloaded by Ethernet. (downloading speed: 7MB/S)

In towed mode EA-SDA14 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 real-time access to configuration, real-time scripts and to the recorded files.

Contact

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