

DRS-PAM DIGITAL RECORDING SYSTEM

DESCRIPTION

The Seiche DRS-PAM system enables the recording of large acoustic datasets. The system is integrated within Seiche buoys and rafts or can readily be installed on other platforms, such as Unmanned Surface Vehicles (USVs). The system is highly configurable to suit mission duration and power availability. Applications include:

- Baseline monitoring of marine mammals
- Baseline monitoring of ambient and anthropogenic underwater sound

DRS-PAM is able to continuously record underwater sound at a high sampling rate, enabling detection of a wide range of vocalising animals. Up to 6 Terabytes can be logged directly onto a solid-state drive for offline analysis. DRS-PAM has storage capacity for up to 70 days recording at maximum sampling rate (one hydrophone, sampled continuously at 500 kHz, 16 bit, uncompressed). Alternatively, the hydrophone signal may be sampled at a lower rate, or on a duty cycle (e.g. 30s each 5 min), or recordings may be triggered only in response to certain detection events. Data is recorded

for offline analysis in Seiche proprietary software format.

Near real-time transmission is possible for assurance checks and/or the transfer of data in part-processed format (such as trigger events). The system can also be accessed remotely to

turn off/on and so minimise maintenance and power management. Very low bandwidth is required for transmission over a global scale.



KEY FEATURES

The highly configurable approach of DRS gives the flexibility to integrate a range of capabilities within the unit architecture.

The DRS-PAM system is contained within a robust, fully waterproof unit of compact cylindrical dimensions (65 cm x 25 cm) and lightweight (< 6 kg).

COMMUNICATION METHODS

GSM and 3G/4G – if available locally; small packets of data for assurance checks and limited trigger event information; near real-time.

Iridium – global coverage; very small packets of data for assurance checks and limited trigger event information; near real-time.