

RT- μ PAM Sound Recorder & 2-CH Towed Array

The RT- μ PAM ('Real Time micro-PAM') is an autonomous underwater sound recorder, which is paired in this application with a 2-ch towed hydrophone array.

The μ PAM system provides wideband Passive Acoustic Monitoring, in a small and highly portable package that is ideal for integration into an uncrewed surface vessel (USV) or uncrewed underwater vehicle (UUV) such as a glider. The μ PAM is IP67 rated and designed for use in tough, marine environments.



The Seiche μ PAM and towed array PAM system consists of:

- 27.5-m array section of 2 - 4 hydrophones & preamplifiers
- A deck cable at a chosen compatible length (array to μ PAM) - on request
- Uninterruptible power supply (UPS) unit
- μ PAM autonomous sound recorder.

Applications

- + USV integrated sound recorder
- + Sound level measurement
- + Marine mammal baseline surveys

RT- μ PAM Sound Recorder & 2-CH Towed Array

Key Features

- μ PAM autonomous sound recorder, housed in a ruggedised aluminium case (IP67 rated enclosure; EMI shielding)
- Connect arrays of up to four hydrophones & low-noise preamplifiers
- Stream up to 2 hydrophones at 48kHz over a network or internet.
- Single-board computer, Intel processor, 8 Gb RAM
- Windows and Java platforms to support PAMGuard software
- National Instruments cDAQ-9171 chassis and NI 9222 module for audio sampling at up to 500 kHz/ch (16-bit)
- 4 Tb solid-state drive enabling continuous data-recording in wav format, e.g. up to 35 days recording 2 ch at 350 kHz sampling rate (69 days with 8 Tb SSD upgrade)
- A power line filter to remove noise from DC source (12V)
- UPS for controlled shutdown
- PAM-Dog 'watchdog' software configured to automatically restart recording with project PAMGuard configuration after power supply interruptions
- PAM Checker software enables data volume checks over an Iridium data-link
- Average power consumption 12 W
- Ethernet, serial

Specification

Hydrophone Elements:	2 - 4
System Frequency Response:	10-160,000 Hz (-3 dB)
Power Requirement:	12 W (1A @ 12V)
Weight:	10Kg (Case, tablet and hydrophone cable)

