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research**

# THE PORPOISE FAMILY

## INTELLIGENT UNDERWATER ACOUSTICS

### Compact & intelligent underwater acoustics in a low power and low cost package.

The Porpoise family of underwater noise recorders delivers superior processing power and real-time data streaming in compact, streamlined, ultra-low-power packages available in both single and multi-channel configurations.

Porpoise Pod extends the capabilities of the Porpoise family of acoustic recorders with up to four synchronously sampled channels, supporting beamforming, directionality, and high dynamic range recording through mixed-sensitivity hydrophones.

Highly configurable, Porpoise provides per-channel gain and filtering, flexible scheduling, real-time audio streaming, and substantial internal storage for long-term deployments in a low-power package. Integrated GPS support enables precise time synchronization. Offered in an OEM package, Porpoise integrates seamlessly into your end application.



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# PORPOISE & PORPOISE POD

## Intelligent Underwater Acoustics



### High Dynamic Range

With Porpoise Pod, pair hydrophones of different sensitivities to achieve exceptionally high dynamic range.

### Multichannel Data Collection

Our standard Porpoise supports single-channel recording, while Porpoise Pod extends performance with up to four synchronously sampled channels.

### Real-Time Streaming Audio & Spectrogram

Use our TRAC software to stream real-time audio and visualize it with an integrated spectrogram.

### Low Power Consumption

Extremely low power consumption enables long-term deployments and makes the OEM solution ideal for seamless integration into your end application.



### TRAC

#### Real time configuration, analysis and visualization

The Turbulent Research Acoustic Control (TRAC) application is real time configuration, analysis and visualization software designed for use with all of Turbulent Research passive acoustic monitoring products.



# PORPOISE & PORPOISE POD

Compact, intelligent underwater acoustics  
in a low power, cost effective package.



## OEM Capabilities

Harness the power of Porpoise or Porpoise Pod in your end application, with a footprint only slightly larger than a business card and unmatched performance per dollar.

## Up to 6000m Depth Rating

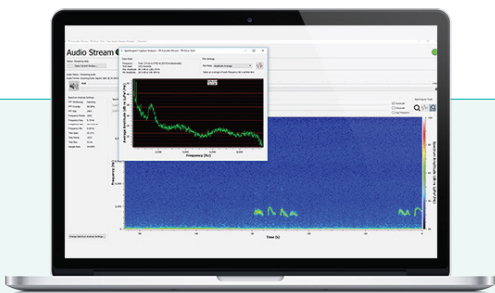
Deploy to depths of up to 6000 m with Porpoise EXT, and up to 4500 m with the Porpoise 36D and 84D variants. Custom depth ratings are available upon request.

## Flexible Scheduling

Use flexible recording schedules to conserve power and maximize deployment time.

## Extensive Storage Capacity

Featuring up to 16 TB of internal storage, the system supports extended-duration, high-resolution recording across multiple channels.



TRAC allows users to easily setup their instrument parameters including enabled channels, sampling rates, channel gain, recording schedules and internal processing. Additionally, TRAC provides a real time portal to the user's instrument, digital multichannel acoustic data is presented as real time spectrograms, third octave plots with percentiles, and live real time audio.



# THE PORPOISE FAMILY

## PRODUCT DETAILS



PORPOISE-EXT 6000m



PORPOISE 750m | 2000m



PORPOISE-EXT 750m | 2000m



SINGLE CHANNEL



OEM PORPOISE



MULTI CHANNEL

PORPOISE-36D &  
PORPOISE-84D

750m | 2000m | 4500m

### SPECIFICATIONS

ACOUSTIC	<ul style="list-style-type: none"> <li>✓ Analogue Bandwidth &gt; 150 kHz</li> <li>✓ ADC: 24 Bits Sigma Delta</li> <li>✓ Dynamic Range: 110 dB (full bandwidth)</li> <li>✓ Configurable Gain: 10 dB - 40 dB</li> <li>✓ Maximum Sensitivity: -165 dB Re 1 V/μPa</li> <li>✓ Programmable High Pass Filter: Software Controlled</li> </ul>
MEMORY	<ul style="list-style-type: none"> <li>✓ 1TB Micro SD standard, upgradeable to 16TB</li> <li>✓ Configurable recording, schedule and duty cycling</li> </ul>
DIMENSIONS	<ul style="list-style-type: none"> <li>✓ PORPOISE: 70mm x 233mm, 2.5lbs</li> <li>✓ PORPOISE-EXT (2000m): 70mm x 233mm, 4.8lbs</li> <li>✓ PORPOISE-36D (750m): 610mm-183mm, 41lbs</li> <li>✓ PORPOISE-84D (750m): 864mm-183mm, 67.1lbs</li> <li>✓ OEM PORPOISE: 127mm x 64mm x 29mm, 0.33lbs</li> </ul> <p><b>NOTE: Weight variable based on product configuration</b></p>
COMMUNICATIONS	<ul style="list-style-type: none"> <li>✓ Real Time Ethernet Streaming spectrograms, live audio, configuration and data download</li> </ul>
ENVIRONMENTAL	<ul style="list-style-type: none"> <li>✓ PORPOISE: 750m standard</li> <li>✓ PORPOISE-EXT: 750m pressure vessel, pressure relief valve included.</li> </ul> <p><b>NOTE: EXT-Version External hydrophone connection via 8 pin female subconnector.</b></p>
EXTERNAL INTEGRATION	<ul style="list-style-type: none"> <li>✓ GPS Input for PPS Time Synchronization</li> <li>✓ Real Time Buoy</li> </ul>

### PRODUCT VARIATIONS

#### POWER OPTIONS

##### Internal Power:

12 x AAA cells, 36 x D-cells, 84 x D-cells

##### External Power:

6.5V - 26V DC, External Packs Available

#### ACOUSTIC

##### Sampling Rates Supported:

2khz, 6khz, 8khz, 16khz, 24khz, 32khz, 48khz, 64khz, 96khz, 128khz, 192khz, 256khz, 384khz

#### DEPTH RATING OPTIONS

**PORPOISE:** 750m, 2000m

**PORPOISE-EXT:** 750m, 2000m, 6000m

**PORPOISE-36D|84D:** 750m, 2000m, 4500m

#### HYDROPHONES

**PORPOISE, PORPOISE-36D|84D:** M24-400 (2500m)

**PORPOISE-EXT, PORPOISE-36D|84D:**

- M36-900 (standard) - 900m

- M36-100 - 2500m

- M36-600 - 6000m



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