



# icListen

The new standard in broadband digital marine acoustics

The icListen Smart Hydrophone is the industry's most sensitive broadband digital hydrophone. It's a compact, all-in-one instrument capable of processing data while collecting in real-time.

Use icListen as a digital hydrophone, acoustic data logger, or both at once. Collect hard to detect data accurately and cost effectively while reducing data handling and storage.

## Introducing our newest icListens

**icListen HF-X2** - Record high intensity sounds: pile driving and explosions.

**icListen AF** - Extends LF's quiet performance into the audio band.

Applications	HF	HF-X2	AF	AF(L)	LF
Marine Mammal Monitoring	*		*		
Earthquake and Tsunamis				*	*
Pile Driving/Explosives		*			
Ocean Observatory	*		*	*	
Pipeline Leak Detection	*				
Wind Farms	*				
Shipping Noise	*		*		

- **Detect** real-time events using Epoch Mode. Determine when spectral or WAV data is stored or transmitted in real-time.
- **Use** a web browser to access the webserver to setup, test, and operate icListen.
- **Synchronize** multiple hydrophones for a high quality multi-channel array avoiding the problem of cross-talk.
- **Simplify** data processing and project planning.
- **Wide** dynamic range eliminates gain settings.
- **Easy** to connect through a network, radio or cabled to a PC.
- **Compact** and self-contained, can be carried in one hand.
- **Extend** your reach beyond 100m using the GSM Radio Buoy, ISM Radio Buoy or Ethernet Extender.

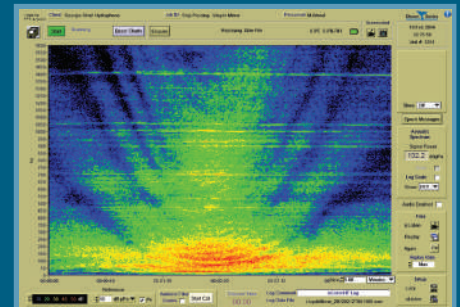


## icListen Models HF, AF, LF



### 24-bit Smart Hydrophone

- Quiet
- Low Power
- Calibrated
- Acoustic Array
- High Value Rich Data
- Easy to Deploy



### Lucy Software

Lucy is used to setup and test icListen.

Display real-time waveform or waterfall displays using our PC software Lucy.

OceanSonics.com



**Bandwidth (+/- 6 dB)**

**HF:** 10 Hz to 200 kHz  
**AF:** 1 Hz to 12 kHz  
**LF:** 1 Hz to 1600 Hz

**Sample Rate (Max S/sec)**

**HF:** 512,000    **HF-X2:** 512,000  
**AF:** 32,000    **LF:** 4,000

**Power**

12 - 24 Vdc input  
 2 W with Ethernet link

**Synchronization**

Accuracy 0.25 usec  
 Lock Range 1.0 Hz +/- 8ppm  
 GPS PPS  
 External IEEE 1588 Module Optional

**Acquire Modes**

Record: Waveform / FFT / Epoch

**Maximum Internal Data Storage**

128 GB

**Dynamic Range**

**HF and AF:** 118 dB  
**LF:** 134 dB

**Sensitivity**

**HF, AF and LF:** -170 dBV re.  $\mu\text{Pa}$   
**HF-X2:** -210 dBV re.  $\mu\text{Pa}$

**Case Material and Depth**

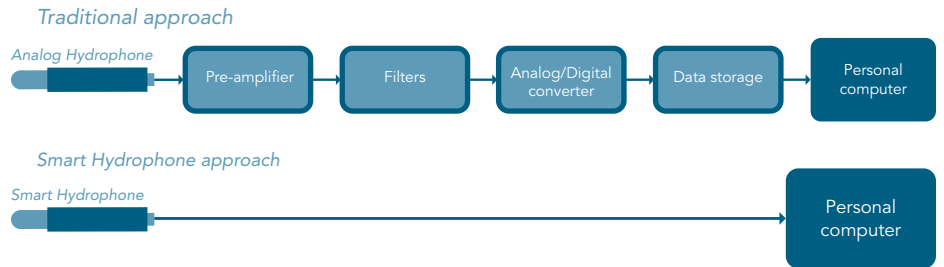
Engineered Plastic - 200m  
 Titanium - 3500m



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# What makes icListen different?

The icListen replaces preamp, filters, converters and data link with a compact unit that gives trusted sound data in real units.



**Hydrophone Sensing Element;** ultra low noise and wide dynamic range for high signal quality and long term stability.

**Intelligent Digital Hydrophone** processes data before it is transmitted using spectral analysis and event detection, preconfigured for each application.

## Comparison of the icListen Models

iclisten	Min Freq	Max Freq	Battery Life	Interface	Web Server	Self Noise
HF	10 Hz	200 kHz	10 Hours	Ethernet	Yes	27
HF(L)	1 Hz	200 kHz	10 Hours	Ethernet	Yes	27
HF-X2	1 Hz	200 kHz	10 Hours	Ethernet	Yes	67
AF	10 Hz	12 kHz	10 Hours	Ethernet	Yes	18
AF(L)	1 Hz	12 kHz	10 Hours	Ethernet	Yes	24
LF	1 Hz	1.6 kHz	30 Hours	Serial		22

## Compare icListen Models to Ocean Ambient Levels

