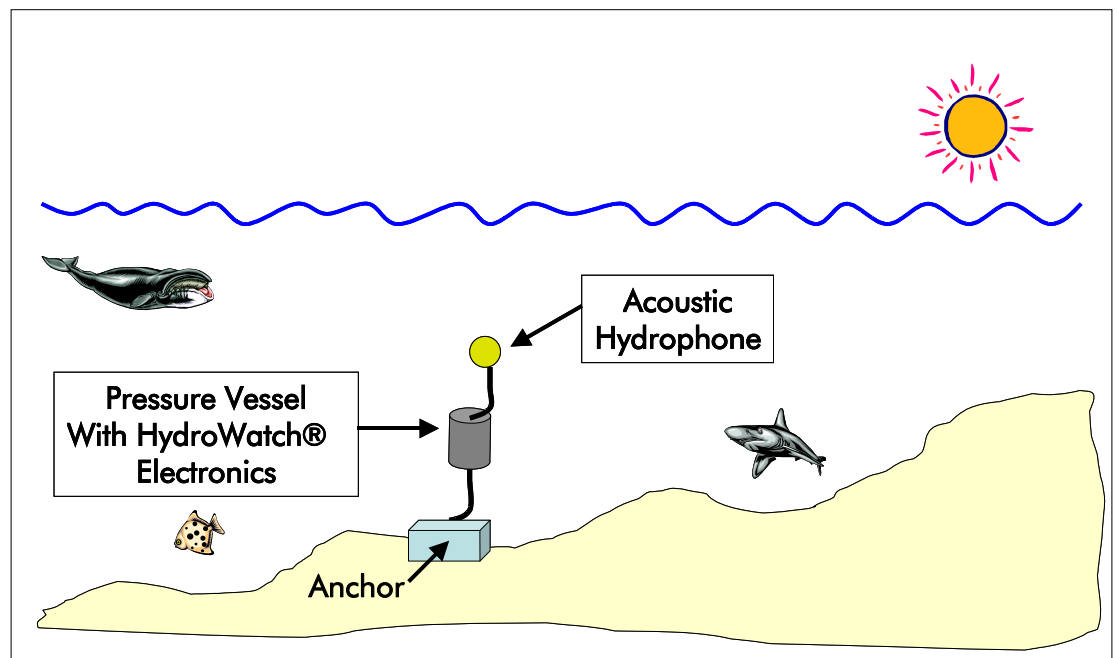


# HydroWatch®

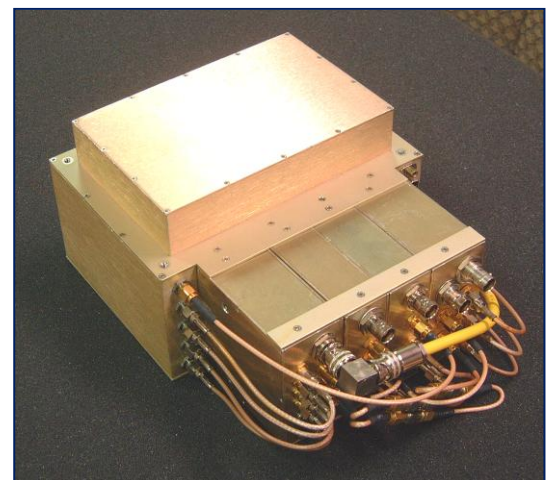
## High Performance Acoustic Sensor System

### HydroWatch® DESIGN

HydroWatch® is designed to have a very large noise free dynamic range. A very sensitive hydrophone is mated to electronics that do not add noise and preserve the signal dynamic range of the hydrophone. All signals are sampled to 24 bit resolution and stored on high capacity disc drives for later retrieval and analysis. HydroWatch® has built in signal processing algorithms that analyze and screen the incoming signals in real time to detect signals of interest. HydroWatch® is design for high reliability and long life. The HydroWatch® electronics are enclosed in a pressure vessel for underwater operation.



- High Performance Acoustic Target Detection and Data Storage
- Programmable Features for Automated Target of Interest Detection
- Very Large Noise Free Dynamic Range Allows Detecting Low Level Target Signals in the Presence of High Level Noise
- Stores More than 100 GBytes of High Resolution Acoustic Signature Data
- Uses a Very Sensitive Low Noise Hydrophone
- Battery Operated for Remote Operations – Low Power Consumption for Long Life



# HydroWatch® Specifications

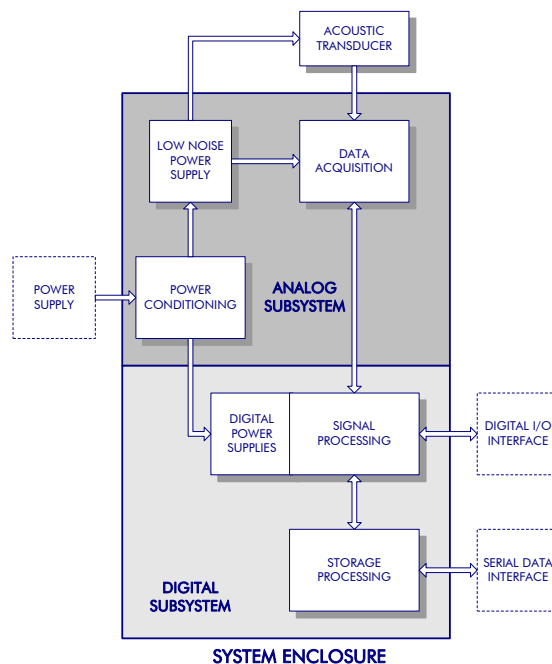
## HydroWatch® OPERATIONS

The McQ HydroWatch® is a high performance acoustic signal acquisition, recording, and analysis system. The HydroWatch® unit is designed to operate at very low power consumption for long periods of time monitoring coastal or harbor areas. The HydroWatch® unit has signal processing that can be tailored to detect and report targets of interest, such as small surface craft, freighter ships, high speed boats, underwater vehicles, etc. HydroWatch® is designed to fit into buoys for deployment in coastal waters and harbors. The unit can be designed to transmit information over satellite or terrestrial RF links to the user. Designed specifically for portable, automated, battery powered operation, HydroWatch® operates in environments requiring state of the art performance. It is small, suitable for operation from modest battery packs or solar power and provides superb low noise, high dynamic range data acquisition.

For more information on any of our products or services please visit us on the Web at:  
[www.mcqinc.com](http://www.mcqinc.com)

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Characteristic	Capability
Mission	Detection, Alarm, Recording
Sample Resolution (bits)	24
Dynamic Range (dB)	104
Number of Channels	1/2 <sup>+</sup>
Bandwidth (Hz)	5 – 16000
Sample Rate (SPS)	32000
Signal Input Voltage, Differential Max (V)	10
Signal Input Voltage, Single Ended Max (V)	5
Storage Capacity (GBs)	160
Storage Capacity (Days)	9
Power Supply Voltage (VDC)	20 – 33
Average Power Consumption (Watts)	1.5 / 5*
Detection Types	Tones, Pulses, Transients
Operating Temperature (°C/°F)	0 – 70 / 32 – 158
Size (L x W x H); (in/cm)	9 x 7.25 x 5.00; 23 x 18.4 x 12.7
Weight (lbs/kg)	7 / 3.2



+ One channel is used for detection; two channels are used for recording.

\* Power consumption is dependent upon the size of the user-programmable target library and the activity of deployment environment. Lowest power consumption is based on a single channel used for detection. The higher power consumption is based on dual channel recording and storage.



1551 Forbes Street  
 Fredericksburg, VA  
 22405-1603 USA

T: 540.373.2374  
[www.mcqinc.com](http://www.mcqinc.com)