



Seamap's SeaLink 24 Digital Module is designed to complement the SeaLink 3840 Recording Systems.

The digitizing modules are powered via a 750 mA DC constant current loop. The 24 channel analog input is capable of sampling at $\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{2}$, 1, 2 and 4ms via 24bit delta sigma converters. Digitized data including data from other modules in the array are transmitted to the recording system via Seamap's proven proprietary telemetry system over common electrical twisted pairs. The power, control, data acquisition and systems diagnostics of the modules are performed via the SeaLink workstation on the recording vessel / platform.

The SeaLink 24 Digital Module is enclosed in a 2.375" (60.325mm) OD titanium tube with end-caps. The SeaLink module has a crush depth of 6,925m. The Seamap custom SeaLink 56 pin connector has proven reliable and durable in the harshest environment. All SeaLink Modules have double O-Rings and are Nitrogen filled to ensure mechanical integrity.

The SeaLink 24bit Data Acquisition System is based on proven technology and can be configured for many applications including marine seismic data collection.

Custom designs and customizing SeaLink Modules are available upon request. All exposed in-sea metals are titanium.



Key Features:

- 24 Channels in one Module
- Selectable Gain
- Selectable Low Cut and High Cut Filters
- Lower Power Consumption
- High Channel Capacity – 480 Channels @ $\frac{1}{4}$ ms per Array
- Continuous Data Collection
- Sample Rates of $\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{2}$, 1, 2 & 4 ms
- Reduced Component Count

Applications:

- Marine 2D / 3D / 4D Seismic
- High Resolution Seismic
- Ultra High Resolution Seismic
- UHR3D Ultra High Resolution Seismic
- Ocean Bottom Cable (OBC)
- Vertical Arrays
- Reservoir Monitoring
- Passive Acoustic Seismic

SEAMAP SEALINK 24 DIGITAL MODULE



24 CHANNEL DATA ACQUISITION

Specifications:

SeaLink 24 Digital Module					
Number of Seismic Channels	24 Per Module 4 and 6 Data Lines (Programmable Per-Application Requirement)				
		Rate	Int.	#Chan	#Mod
		8000	0.125	240	10
		4000	0.25	480	20
		2000	0.50	1,008	42
		1000	1.00	2,016	84
		500	2.00	4,128	172
		333	3.00	Custom	
250	4.00	Custom			
Non-Seismic Channels Allocated	NAD Channels (Including BuoyLink 4DX)	Internal Pressure Internal Temperature Voltage Measurements Current Measurements			
Analog/Digital Converter	24bit Delta Sigma Type				
Dynamic Range	> 112 dB (5-206 Hz)	Based on 2ms Sample Rate			
Distortion	THD < 0.003%	Based on 2ms Sample Rate			
Lower Power Consumption	Less than 8 watts per module				
Preamplifier Type	Voltage Mode Differential Input	Selectable Gain +1.0% accuracy: 0 to 36 dB Increments in 6dB steps			
Low Cut Filter	Analog	2.5Hz or 5Hz 6db/Oct (Hydrophone Cap + Input Z)			
Low Cut Filter	Digital Infinite Impulse (IIR) Filter	Selectable Settings: 0.1 to 10Hz in 1 Hz Increments 6db/Oct			
High Cut Filter	Digital Linear Phase				
Selectable Sample Rates	0.125 ms 0.25 ms 0.5 ms 1.0 ms 2.0 ms 4.0 ms	-3 dB Corner Frequency: 3304Hz -3 dB Corner Frequency: 1652Hz -3 dB Corner Frequency: 824Hz -3 dB Corner Frequency: 412Hz -3 dB Corner Frequency: 206Hz Custom			
Functional Testing	Source: Internal Test Oscillator, Frequency: 31.25 Hz, Sine Wave				
Tests	DC Offset, RMS Noise, Channel Gain Accuracy, Impulse Response Hydrophone Leakage, Harmonic Distortion, Crosstalk				
SeaLink 24 Digital Module Physical Dimensions	Length: 14.43" (366.52 mm) Overall: 19.59" (497.58 mm) OD: 2.375" (60.325 mm)	Weight in air: 4.8 lbs (2.18 Kg) Weight in water: 3.13 lbs (1.42 Kg)			

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