



The SeaLink™ 24 Digital Module delivers high performance signal digitization, designed for demanding offshore operations. Engineered to integrate seamlessly with the SeaLink Recording System, this module provides exceptional data quality, robustness, and reliability for modern marine seismic applications.

High Performance Seismic Digitization

Each 24 channel module is powered through a 750 mA DC constant current loop, offering a compact, efficient architecture for large-scale marine seismic spreads. The analog front end supports sample rates from 0.125 ms to 4.0 ms using 24-bit delta-sigma converters, ensuring high-resolution subsurface imaging.

Digitized data—along with information from other modules—is transmitted via Seamap's proprietary telemetry protocol using standard twisted pair cabling. All power, control, acquisition functions, and diagnostics are centrally managed through the SeaLink workstation on the survey vessel or platform.

Built for Harsh Marine Environments

Housed in a rugged 2.375" (60.325 mm) OD titanium enclosure, the SeaLink module withstands a crush depth of 6,925 m. Double O rings and nitrogen filling ensure long-term mechanical integrity and environmental protection. The SeaLink 56 pin connector, custom engineered for extreme reliability, maintains secure connectivity across repeated deployments.

Flexible, Scalable, and Application Ready

The SeaLink 24-bit Data Acquisition System provides a scalable architecture that adapts to a wide range of offshore seismic operations, from ultra-high-resolution shallow work to deep-water reservoir monitoring. Seamap also offers custom module configurations for specialized project needs.

All external in sea metals are titanium, guaranteeing maximum corrosion resistance and lifecycle value.



Key Features:

- 24 channels per module
- Selectable gain
- Selectable low cut and high cut filters
- Low power consumption (< 8 W per module)
- High channel capacity – 240 channels @ 0.125ms & 480 channels @ 0.25 ms per array lead-ins
- Continuous data acquisition
- Sample rates from 0.125 ms to 4 ms
- Reduced component count for increased reliability

Applications:

- Marine 2D / 3D / 4D seismic
- High resolution and 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 Proprietary SeaLink™ Digital Telemetry	24 Channels Per Module 4 Data Lines (Optional 6 Data Lines) (Programmable Per-Application Requirement)	<table border="1"> <thead> <tr> <th>Rate</th> <th>Int.</th> <th>#Chan</th> <th>#Mod</th> </tr> </thead> <tbody> <tr> <td>8000</td> <td>0.125</td> <td>240</td> <td>10</td> </tr> <tr> <td>4000</td> <td>0.25</td> <td>480</td> <td>20</td> </tr> <tr> <td>2000</td> <td>0.50</td> <td>1,008</td> <td>42</td> </tr> <tr> <td>1000</td> <td>1.00</td> <td>2,016</td> <td>84</td> </tr> <tr> <td>500</td> <td>2.00</td> <td>4,128</td> <td>172</td> </tr> <tr> <td>333</td> <td>3.00</td> <td>Custom</td> <td></td> </tr> <tr> <td>250</td> <td>4.00</td> <td>Custom</td> <td></td> </tr> </tbody> </table>	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					
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Non-Seismic Channels Allocated	Non Acoustic Data (NAD) Channels (Including BuoyLink LITE & BuoyLink 4DX)	Internal Pressure Internal Temperature Voltage Measurements Current Measurements																																				
High Channel Capacity	240 Channels @ 0.125ms & 480 Channels @ 0.25ms per array lead-ins																																					
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																																				
Digital High Cut Filter	Linear Phase, with -3dB points depending on sampling																																					
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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