

P-Cable XR Solid Digitizer

Technical Specifications and Application



Technical Specifications

- Channels per Module: 8 or 16 (configurable)
- Sample Intervals: 1/8, 1/4, 1/2, 1, or 2 ms
- Recording Mode: Continuous with GPS Synchronization
- Programmable Gains: 0, 8, 18, 30, or 42 dB
- Anti-alias Filter: Set by Sample Interval, Down 135 dB @ Stop-Band
- Maximum Input Range: 1.59 Vrms
- Resolution: 24 bits
- Input Impedance: 126.8K Ohms, paralalled by 2.4 nF
- Dynamic Range: 120 dB Typical @ 1ms
- Common Mode Rejection: >110 dB
- Noise Floor: 0.3 μ V at 2 ms
- Power Consumption: 600 mW / channel
- Calibration Oscillator: 100 Hz, 0.3 μ V to 600 mVrms
- Packaging Material: Titanium
- Connectors: Teledyne 37-pin

P-Cable XR Solid Digitizer Application

The P-Cable XR Solid Digitizer features 24-bit A/D conversion for maximum signal fidelity (120 dB dynamic range) and wide bandwidth recording (sampling intervals from 1/8 to 2 milliseconds) to support offshore petroleum, windfarm, construction, engineering and sub-bottom profiling applications. The XR Solid digitizer communicates with the shipboard CNT-2 controller via Ethernet connectivity. The PC-based CNT-2 Controller from Geometrics supports continuous, GPS-synchronized recording with multiple shot and gather windows, bar graph noise displays, as well as windows for shot timing, source energy, brute stack and spectral analysis. The controller also supports writing to multiple storage targets and integrates navigation, source and compass/bird data into the recorded SEG-D or SEG-Y header. Tests for quality control include leakage and capacitance of hydrophone elements, noise, offset, harmonic distortion and gain similarity.