

DAQLink4



DAQlink-4 is a portable inline seismic station that provides seismic surveys with any methods on land, in boreholes and in the water area. The possibility of continuous data recording allows using the station as a stand-alone recording system for seismic monitoring or passive MASW.

The number of channels in one recorder could be 6, 12, 24 or 48, but the system configuration allows increasing their number by linking the stations through cable lines up to 3 km long, which are used for time synchronization in the modules and data exchange between them. When using the seismic station as a stand-alone recorder, time synchronization of the units is carried out through a GPS receiver, and in the case of operation in mines and tunnels it is maintained through a built-in clock or with the help of a VHF radio modem.

Features of DAQlink-4:

- Ability to link seismic stations in a single array using twisted-pair cable (length up to 3 km), Ethernet, Wi-Fi or GSM modems
- Any recording duration up to continuous recording
- Wide bandwidth of the recorded signal: 0 to 20,000 Hz

- Capable of remote control, setup, registration and data downloading via Wi-Fi, Gigabit Ethernet or cellular connection. Built-in FTP server
- VHF / UHF radio or twisted pair wired synchronization (up to 3km) for use in mines
- Continuous recording with GPS time synchronization
- Multiple trigger options for recording: by source trigger sensor signal, LTA (Long Term Average) and STA (Short Term Average) event, TTL pulse and others. Even email notification if an expected LTA or STA event is detected
- Data registration for all kinds of sources. Supports Force 3 controllers
- Built-in 16 GB memory for stand-alone data recording and flash drive connection for data backup and transfer
- Built-in tools for testing seismic stations (distortion factor, mutual interference between the channels, phase suppression, inherent noise level) and geophones (impedance, frequency, attenuation, sensitivity)
- Data can be stored in the formats SEG-2, SEG-D, SEG-Y, ASCII or MiniSEED

Specification:

Number of channels in one station	6, 12, 24, or 48
ADC capacity	24, Σ - Δ bits
Dynamic range	124 dB (@ 500 Hz)
Preamplifier gain	×1 (0 dB), ×4 (12 dB), ×16 (24 dB)
Sample rate	125; 250; 500; 1000; 2000; 4000; 8000; 16000; 32000; 64000 Hz
Frequency range	0 ÷ 20 000 Hz
Anti-aliasing filter	85% of Nyquist frequency
High Pass Filter	0.001 ÷ 120 Hz, adjustable
Filter type	linear-phase
Trigger accuracy	±1 (@ 500 Hz) μ s
Maximum input signal with minimum gain	±3.7 V
The level of inherent noise of the registering channel	< 0.2 μ V (@ 500 Hz)
Non-linear distortion coefficient	0.00008 % (@ 500 Hz)
Mutual interference between channels	-125 dB
Common mode suppression factor	100 dB (@ 500 Hz)
Power consumption	0.13 W/channel

Input impedance	kOhm
Time synchronization	GNSS receiver or VHF radio
Data storage capacity (16 Gb CF internal memory)	120 hours (24 channels @ 500 Hz, 16 Gb)
Maximum external memory capacity (Ethernet or USB)	unlimited
Data format	SEG-2, SEG-D, SEG-Y, ASCII, MiniSEED
LEDs	Ethernet, battery status, and operating mode
Power	10 – 28 V DC
Temperature range	-40 ÷ +85 °C
Operating humidity	0 ÷ 100 %
Dimensions	245x340x75 mm
Weight	3.135 kg































