Distributed DAQlink 3

i·Seis

## Distributed High Resolution Seismic Recording System

The Distributed DAQ3-24 is the combination of a standard DAQ3-24 with a high-speed networking subsystem for passing trigger signals and seismic data between units. The entire system is connected to a computer that controls the seismograph and stores the acquired seismic data.

The distributed system can be interconnected with simple twisted pair cable. Plus, all Distributed DAQ3-24s units can be utilized as standard seismographs if the need should arise.

Regular DAQ3-24 & Distributed DAQ3-24

MegaDAQ: Multiple DAQlinks
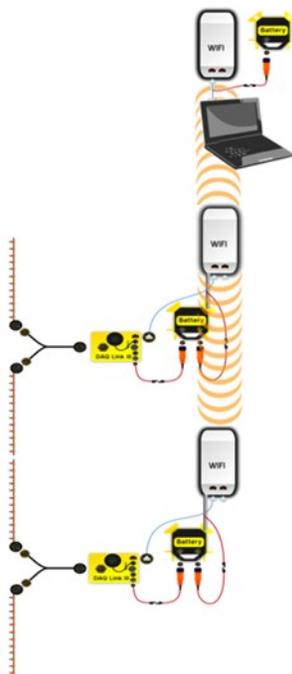
A MegaDAQ consists of multiple 24 channel DAQlink 3 units connected via a network. This can be either a wired or wireless network. The network both controls the seismographs and collects the seismic data in real time.

Seismic Source

Field Benefits

Cutting-Edge Technology for Data Quality
- Ultra High-Speed 24bit ADC (48,000 samples/sec)
- High Resolution Clock
- Low Noise & Low Distortion Means Better Data

Designed to Produce & Protect Data
- Data Always Stored in Box - No Lost Data
- Offload Data While Recording – No Lost Production
- Better Data Handling for Superior Production

Versatile Operation
- Continuous Recording
- Trigger on Time, Data Event or Trigger Input
- Different Modes for Different Types of Projects

Multiple Operation Modes
- Operate as Stand-Alone Seismograph - Great for Small Crews
- Multiple Units Operating in Concert - Increases Crews Flexibility

Sturdy Aluminum Construction
- Rugged, Lightweight, "O" Ring Sealed to IP 67
- Threaded Holes for Mounting
- For Permanent Mounting, or Long-Term Deployment

Downhole Recording
- 24 Channel Units Ideal for Shallow Holes with 8 three-Component Geophone Sondes
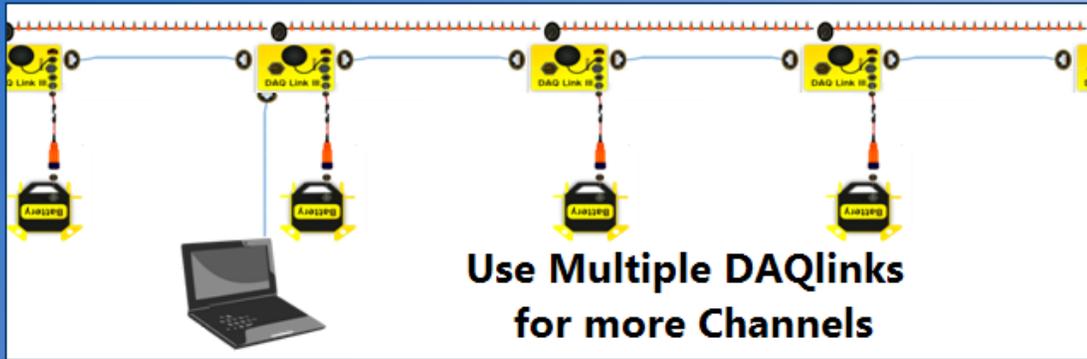- Use Wi-Fi network to collect data from multiple wells

Earth Monitoring
- Low Power for Long-Term Use
- Use Cellular Modem for Remote Data Collection

Useful for Every Project
- Engineering Seismic
- Oil & Gas Exploration
- MicroSeismic Frac Monitoring
- Strong Motion Detection and Monitoring

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Use Multiple DAQlinks for more Channels

Network Details

Network Connection Options
- Geophone String Wire – 2.5 Mbps US / 14.92 Mbps DS @ 2 Km
- Network Cabling – 8.34 Mbps US / 6.07 Mbps DS @ 2 Km
- Wi-Fi – 54 Mbps @ 1 Km (w/ clear line of sight)

Time Break - Trigger Options
- Hardwire Trigger – Trigger through wire to nearest DAQlink and transfer trigger signal through cable.
- Radio Trigger – Trigger across radio to Distributed DAQlink and transfer trigger signal through cable
- Trigger Storage – With DAQlinks continuously recording, store trigger times at Source Point and Post-Process Shot Records

Distributed DAQ3-24 Specification

Electrical			Physical	
A/D	24 bit sigma delta converter		Number Channels	24
Anti-Alias Filters	85% of Nyquist frequency		Temperature	-40°C to +85°C
Low Cut Filter	User Selectable – DC, 0.1 Hz, 2 Hz		Humidity	0 to 100%
Filter Type	User Selectable – Linear, Minimum Phase		Size	13.0" x 9.0" x 4.8" (330 x 230 x 120 mm)
Sample Rates	1/16, 1/8, 1/4, 1/2, 1, 2, 4, 8, 16 ms		Weight	15 lbs (6.8 kg)
PreAmp Gain	x2 (6 dB) & x32 (30 dB) standard x1 (0 dB) & x16 (24 dB) optional		Data Storage (Internal 16GB CF)	120 hours (24 channels @ 2ms)
Max Input at x2 (Standard)	3.58 Volts P-P x2 (Standard) 7.16 Volts P-P x1 (Optional)		Data Storage (through Ethernet)	Unlimited
Bandwidth	DC to 15 kHz		Data Format	32-bit float IEEE SEG-Y/SEG-D
Power	Less than 0.8 watts per channel		LEDs	Network Connect, Network Data Status and Battery
Input Impedance	100k Ohms		**Connectors**	
Clock Sync	GPS		RJ-45	Standard CAT-5 Ethernet
Performance			GPS	4-pin Weatherproof
Trigger Accuracy	± 1 μs at all sample rates		Trigger	3-pin Weatherproof
Dynamic Range	Better than 118 dB (at 2 ms)		Power	2-pin Weatherproof
% THD	0.0012 %		Auxiliary Port	19-pin Weatherproof
Crosstalk	Better than -125 dB		Seismic Data	51-pin Weatherproof
CMRR	Better than 100 dB		Up Network Port	10-pin male Weatherproof
Noise Floor	< 0.2 μV RMS (at 2ms)		Down N/W Port	10-pin female Weatherproof