

High Resolution Versatile Seismic Recording System



The DAQ3-3 is the third generation of portable seismograph systems. The system can be configured as a stand-alone monitoring system, a refraction system or a distributed seismic reflection system.

The DAQ3-3 has been designed for temporary or long term installations and can be monitored continuously or periodically, locally or remotely. External clock synchronization via GPS Module, VHF/UHF radios or Wire enables usage in any environment.



Field Benefits

Cutting-Edge Technology for Data Quality

- Best 32 bit A/D
- 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**

Modular and Stackable

- Combine Units for Additional Channels
- Uses Common GPS Module & Network Connection
- **Use "MegaDAQ" Configuration for Maximum Channels in Minimal Space**

Built-In Trigger Circuit

- Operate as Time Break Recorder
- Captures T0 Time and Aux Channel Data
- **Great for Monitoring Autonomous Sources**

Hardware Benefits

Sturdy Aluminum Construction

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

"Off the Shelf" Standard Connectors

- USB "A" Connector for Data Backup
- RJ-45 Ethernet Connector for Data Collection
- **Makes Communication & Installation Easier**

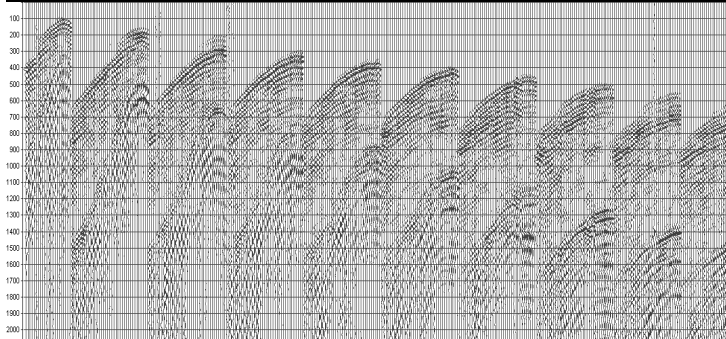
Common Data Signal Connector

- One Set of Three Differential Signals for Geophones
- One Set of Three Differential Signals for Seismometers
- 12v Power Output for Active Sensors
- **Supports a Wide Variety of Sensor Types**

All External Networks

- GPS Module
- Wi-Fi Module / Cellular Modem
- **Enables Mounting inside Containers and Vaults**

Data Download



Superior Design

- Download Current or Historical Data
- **Does Not Interrupt Data Acquisition**

USB Data Offload

- Duplicates Data While Recording
- **Promotes Faster Station Visits**

Network Data Offload

- Cable, Wi-Fi, Cellular, Satellite, etc.

Uses Standard Off-the-shelf Components.



DAQ3-3 units stacked for additional channels.



DAQ3-3 with GPS unit and high capacity Lithium battery

DAQ3-3 Specification

| Electrical | |
|-----------------------|---|
| A/D | 32 bit sigma delta converter |
| Anti-Alias Filters | 85% of Nyquist frequency |
| Low Cut Filter | User Selectable – DC, 0.1 Hz, 2 Hz |
| Filter Type | User Selectable – Linear, Minimum Phase |
| Sample Rates | ¼, ½, 1, 2, 4, 8 ms |
| Max Input @ High Gain | 0.31 Volts peak to peak |
| Max Input @ Low Gain | 5.00 Volts peak to peak |
| Power Wake/Sleep | 0.48/0.01 watts per channel |
| Input Impedance | 20k Ohms |
| Clock Sync | GPS or VHF/Wire |
| Sensor Types | Passive & Active |
| Performance | |
| Trigger Accuracy | ± 1 µs at all sample rates |
| Dynamic Range | 126 dB |
| % THD | 0.0012 % |
| Crosstalk | Better than -125 dB |
| Common Mode Rejection | > 100 dB |
| Noise Floor | < 0.09 µV RMS @ 2ms |

| Physical | |
|----------------------------------|---|
| # Channels | 3 |
| Temperature | -40°C to +85°C |
| Humidity | 0 to 100% |
| Size | 9.0" x 9.0" x 2.1" (230 x 230 x 54 mm) |
| Weight | 5 lbs (2.3 kg) |
| Data Storage (Internal 8GB CF) | 480 hours (3 channels @ 2ms) |
| Data Storage (External 16GB USB) | 960 hours (3 channels @ 2ms) |
| Data Format | 32-bit float IEEE SEG-Y/SEG-D |
| LEDs | Recording LED, Battery LED |

