

QUANTERRA Q730

ADVANCED BROAD BAND REMOTE DATA ACQUISITION SYSTEM

General Description

The Q730 data acquisition system is an advanced low-cost remote broad-band data acquisition system incorporating Quanterra's leading, proven broad-band technology. The system combines a 3-channel 24-bit digitizer having an independent digital signal processors (DSP), and a powerful CMOS computer system with RAM memory that supports Quanterra's real-time packetized communications protocol.



Q730 system with the cover open. The sealed polyethylene enclosure, standard on all Quanterra products, is water tight.

Rear view of water-tight Q730 system enclosure showing connector panel.



140+dB dynamic range A/D and DSP

Quanterra set the world standard for data acquisition at 24 bits and beyond. Our systems are the acknowledged high performers in broad-band seismological instrumentation. The Q730 analog front-end incorporates Quanterra's own patented (US Patent 4866442, others pending) delta-sigma modulator and operates at a fixed sample rate of 20kHz, with other rates derived by digital filtration and decimation in the DSP module. This is the same technique employed in Quanterra's Q680, and Q4120 family 24-bit digitizers, in use world wide in leading programs such as the IRIS GSN, TERRAScope, and US National Seismic Network. Quanterra A/D technology consistently outclasses all others in side-by-side evaluation.

Proven Software - Ultra-SHEAR

The CPU/DSP module is a CMOS 32-bit 68030, and 32-bit floating-point digital signal processor. The CPU/DSP supports Quanterra's proven *Ultra-SHEAR* comprehensive data acquisition software suite. *Ultra-SHEAR* is compatible across the entire line of Quanterra's products, and has been continuously refined over more than 10 years in highly scrutinized installations world-wide.

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