QUANTERRA Q330
ULTRA-LOW-POWER HIGH RES NETWORK-AWARE SEISMIC

General Description

The Q330 is an advanced, low-cost, IP network-aware very low-power 3-6 channel remote broad-band seismic system incorporating Quanterra's leading, proven broad-band technology. The Q330 includes Quanterra's own patented (US Patent 4866442, Japan Patent 2787445, others pending) ultra-low-power delta-sigma 24-bit A/D, a DSP/RAM module containing 8Mb, a GPS receiver, power conversion, sensor control, and a telemetry management module.

Telemetry…

…and Local Recording

The Q330 supports real-time data telemetry to a central site or connection via hard-wire or radio with burst or continuous transmission to a local low-power recording system.

Low! Power

The Q330 employs low-power technology to achieve all functions with an average power requirement of about 1W, including a power-cycled recorder. These power levels permit effective application in OBS or remote field deployments.

Industry-Standard Protocol: UDP/IP

The telemetry protocol uses industry standard highly-robust stateless UDP/IP (Internet std0006) to communicate with the recording system, enabling the use of off-the-shelf communications equipment.

Comprehensive Sensor Control

The Q330 is a seismological instrument, not a digitizer alone. Sensor control and interface is built in.

Streamlined Remote Administration

The Q330 is designed from the ground up for simple network maintenance and administration.

Specifications

Specification	Description
Channels	standard 6-channel Q330-6
Dynamic Range	Approx. 135 dB wideband RMS
Format	32-bit integer, Level 2 compressed 1-second packets
Input Range	40V P-P at gain=1
Gain	Selectable: 1,30
Filtering	Digital, Linear or Minimum Phase.
Sample Rate	200, 100, 50, 40, 20, 10, 1 Other rates available.
Timing	GPS, typical accuracy <0.1msec.
Time Base	Precision TCXO. Phase locked to GPS.
DSP/CPU	ADSP-2189M
Telemetry	Simplex or Duplex with positive acknowledge, sliding window over UDP/IP. SLIP framed on serial. Burst or continuous.
Temperature	Fully specified -20 to +50C Operative -40 to +70C
Sensor Control	Calibrate step, sine, or random. Recenter, on-command
Auxiliary Data	Temp, DC voltage, GPS status, Sensor boom position (6 chan)
Memory	8Mb RAM standard
Network	IEEE 802 10Base-T Ethernet UDP/IP Protocol Stack
Serial Ports	2 serial telemetry and 1 console ports up to 115kbaud.
Wireless	IrDA interface supported.
Time	GPS with antenna + 16m cable.
Power	<1W avg. 12VDC 3-channel
Physical	Sealed, Aluminum, 14 X 4 X 6 in.