QUANTERRA

Q330S

VERY LOW-POWER HIGH-RESOLUTION INTEGRATED SEISMIC SYSTEM

The Q330S is an advanced 3 or 6 channel broad-band, high resolution ultra-low-power seismic system incorporating Quanterra's proven IP networking technology and super rugged USB flash recording. The Q330 uses Quanterra's exclusive patented (US Patent 4866442, Japan Patent 2787445, others pending) delta-sigma 24-bit A/D with DSP, and includes 32Mb RAM, GPS receiver, USB recording, power management, sensor command/control, and an advanced telemetry application for reliable data delivery.

Streamlined Remote Administration
The Q330S is designed for simple network maintenance and administration, before, during, and after deployment. Internet security is built-in. Proven UDP and TCP communications modes are standard.

Telemetry…and Local USB Recording
The Q330S supports real-time data telemetry to multiple central sites and simultaneous local recording on rugged USB flash media. The peerless performance of the Quanterra Q330 in the IRIS/USArray program has established an unchallenged reputation for delivery of high quality data.

Rugged USB Media - MSEED
FDSN-standard MSEED recorded on dual USB media. The media are housed in a rugged watertight compartment.

FEATURES

Low! Power
Incorporating the latest low-power technology, the Q330S achieves integrated capability with an average power requirement of <0.75W, including recorder & GPS!

Internet-Ready Industry Standards
The ultra-reliable Q330S telemetry protocols have been proven in thousands of world-wide installations, and enable the use of off-the-shelf IP equipment and service providors. Dual Ethernet interfaces 10BaseT and 100BaseT are built-in. Data recorded on local media may be accessed using simple standard protocols including HTTP, FTP, and SSH.

Comprehensive Sensor Control
The Q330S is a seismological instrument, not a digitizer alone. Sensor control interface, including advanced sensor calibration, and sensor identification-tag support is built in.

SPECIFICATIONS

Channels	3- or 6-channel
Dynamic Range	132-135 dB wideband RMS typical Typical band-limited 136 dB
Format	2-bit integer, Level 2 compressed 1-second packets
Input Range	40V P-P at gain=1
Gain	Selectable per channel: 1,30
Filtering	Linear or Minimum Phase FIR.

Sample Rate	200, 100, 50, 40, 20, 10, 1 Other rates available.
Time Base	Precision TCXO, locked to GPS. No adjustment.
DSP/CPU	ADSP-2189M & EP9302
Telemetry	Full Duplex, efficient positive acknowledge with error control. UDP or TCP IP over Ethernet. Burst or continuous. Operates with major application software.
Temperature	Fully specified -20 to +50C Operative -40 to +70C

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Operational	Temp, DC voltage, GPS status, Sensor boom position (6 chan)
Memory	32Mb RAM standard
Network	Dual Ethernet (10BT & 10/100BT) Full IP Protocol Stack (Linux)
Serial Ports	1 console ports up to 115kbaud.
Media	Dual USB up to 32G total, failover. -40 +70 rated media available.
Wireless	IrDA interface supported.
Power	<0.6 W avg. 12VDC 3-channel <0.8 W avg. 12VDC 6-channel Add 1.2W for continuous operation. Other dynamic dependencies.
Physical	Sealed, Aluminum, 17 X 4 X 6 in., 9 lbs., Rubber endcaps, Externally visible status and fault indicators.