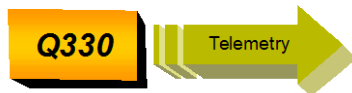# QUANTERRA Q330S+

General Description

The Q330S+ is an advanced 3 or 6 channel broad-band, high resolution seismic system incorporating Quanterra's proven IP networking technology into a very low-power field package. The Q330S+ design is based on Quanterra's exclusive patented (US Patent 4866442, Japan Patent 2787445, others pending) ultra-low-power delta-sigma 24-bit A/D with DSP know-how, and includes 32Mb RAM, GPS receiver, power management, sensor command/control, and an advanced telemetry application for ultra-reliable data delivery.

Telemetry…

…and Local Recording

The Q330S+ supports real-time data telemetry to a central site or connection via hard-wire or radio (burst or continuous) to a local low-power recording system, or both simultaneously.

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 telemetry protocols uses industry standard stateless IP communications, enabling the use of off-the-shelf IP equipment and service providors. Serial IP and Ethernet 10BaseT are built-in.

Comprehensive Sensor Control

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

Streamlined Remote Administration

The Q330S+ is designed for simple network maintenance and administration, before, during, and after deployment. Internet security is built-in.

Specifications

Specification	Description
Channels	3, optional 6-channel
Dynamic Range	132-135 dB wideband RMS typical Typical band-limited 136 dB
Format	32-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	1000, 500, 200, 100, 50, 40, 20, 10, 1 Other rates available.
Time Base	Precision TCXO, locked to GPS. No adjustment.
Telemetry	Full Duplex, efficient positive acknowledge with error control. UDP/IP over serial and Ethernet. Burst or continuous. Operates with major application software.
Temperature	Fully specified -20 to +50C Operative -40 to +70C
Sensor Control	Calibrate step, sine, or random. Recenter, on-command
Operational Data	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 32GB total, failover. -40 +70 rated media available.
Power	<0.6 W avg. 12VDC 3-channel <0.8 W avg. 12VDC 6-channel
Physical	Sealed, Aluminum, 17 X 4 X 6 in., 10 lbs., Rubber endcaps, Externally visible status and fault indicators.

Q330S+ - QUANTERRA, INC. – 325 Ayer Rd – Harvard MA, USA 978-772-4774

PRELIMINARY SPECIFICATIONS, SUBJECT TO CHANGE   Rev A.