

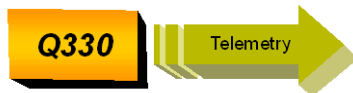
QUANTERRA Q330S+



General Description

The Q330S+ is the newest member of the world-standard Q330 family, and 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+ leverages Quanterra's extensive experience in ultra-reliable seismic systems design, and combines sampling up to 1kHz with ultra-high low-frequency resolution.

Telemetry...



...and Local Recording



The Q330S+ supports real-time data telemetry to up to 3 independent central sites *and* internal, reliable local low-power USB recording system, *simultaneously*. Recording may be cycled to conserve power.

Low Power

Incorporating the latest low-power technology, the Q330S+ achieves integrated capability with an average power (cycled mode) requirement of ~0.75W, including recorder & GPS

Internet-Ready Industry Standards

The telemetry protocols use industry-standard stateless IP communications over UDP or TCP transport layers, enabling the use of off-the-shelf IP equipment and service providers. The Q330S+ is designed for simple and powerful network maintenance and administration

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.

Specifications

Specification	Description
Channels	3, optional 6-channel
Dynamic Range	Typical ~138dB wideband RMS Low-frequency may exceed 145dB
Format	32-bit integer, Level 2 compressed 1-second packets
Input Range	40V P-P at gain=1
Gain	Selectable per channel group: 1, 8, 32
Filtering	Linear or Minimum Phase FIR.
Sample Rate	1000, 500, 250, 200, 100, 50, 40, 20, 10, 1. Other rates available.
Time Base	Precision TCXO, locked to GPS. No adjustment.
Telemetry (real-time)	Full Duplex, low-latency efficient positive acknowledge with error control. UDP/IP over serial and Ethernet. Burst or continuous. Operates with major application software.
Data storage and retrieval	2 PC/MAC/linux-formatted removable USB media, 16G each (128G in development). Industry-standard. Standard HTTP, FTP, and SSH servers for remote retrieval.
Temperature	Fully specified -20 to +50C Operative -40 to +70C
Sensor Control	Calibrate: step, low-THD sine, or random. Recenter, on-command
Operational Data	Temp, DC voltage, GPS status, Sensor boom position (6 chan)
Memory	64MB RAM standard
Network	Ethernet (10/100Base-T) Full IP Protocol Stack (Linux), DHCP
Serial Ports	1 console port up to 115kbaud.
Media	Dual USB up to 32GB total, failover. -40 +70 rated media available.
Power	12VDC nominal ~0.7W avg. 3-channel (cycled) ~1.0W avg. 6-channel (cycled) ~2.4W avg. 6-channel (continuous)
Physical	Sealed, Aluminum, 17 X 4 X 6 in., 10 lbs., Rubber endcaps, Externally visible status and fault indicators.

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PRELIMINARY SPECIFICATIONS, SUBJECT TO CHANGE

Rev D