

Quantum[®]

FEATURES

- All-in-one single component recording unit
- Lightweight node weighing only 650g
- 50 days typical, 24 Hr operation
- Local 8GB or 16GB data storage
- Optional HyperQ long range wireless QC using technology

GENERAL SPECIFICATIONS

No. of Analog Channels:	1
Data Storage Capacity:	8GB non-volatile flash memory (upgradeable to 16GB)
Integrated Battery:	Rechargeable Li-ion
Battery Life:	50 days typical, 24 Hr operation 42 days typical, 24 Hr operation (with HyperQ)
Wireless Communication:	Bluetooth LE, Optional HyperQ
GPS:	L1-GPS /QZSS, GLONASS, BeiDou, Galileo
Timing Accuracy:	+/-20 μ s
Sensor:	Vertical 5Hz or 10Hz high-sensitivity geophone
Charging Temperature:	+5 $^{\circ}$ C to + 40 $^{\circ}$ C
Operating Temperature:	-40 $^{\circ}$ C to + 70 $^{\circ}$ C
Water Immersion:	IP68

PHYSICAL

Size:	10.9 cm x 9.8 cm x 10.7cm (Excl. spike) (4.4" x 3.9" x 4.2")
Weight:	0.65 kg (1.43lbs) incl internal battery and geophone



ANALOG SPECIFICATIONS

A/D Converter:	24-bit
Sample Rates:	1 ms, 2 ms, or 4 ms
Gains:	0 dB, 6dB ¹ , 12 dB, 18dB ¹ , 24dB ¹
Maximum Input Signal (RMS):	3.535 V @ 0 dB , 1.768 V @ 6 dB 0.884 V @ 12 dB, 0.442 V @18dB 0.221 V @ 24 dB
Equivalent Input Noise* (RMS):	1.408 μ V @ 0 dB 0.712 μ V @ 6 dB, 0.368 μ V @ 12 dB 0.202 μ V @ 18 dB, 0.132 μ V @ 24dB
Instantaneous Dynamic Range*:	128 dB @ 0 dB, 128 dB @ 6 dB 128 dB @ 12 dB, 127dB @ 18 dB 124 dB @ 24 dB
System Dynamic Range*:	148 dB
Total Harmonic Distortion:	<0.1% with 10Hz HS phone <0.2% with 5Hz HS phone
Channel Matching:	Better than 1%
Anti-Alias Filter:	3dB @ 0.876 fN (Nyquist)
Filter Options:	Minimum and Zero Phase

AUTOMATED TESTS

Unit temperature, sensor tilt, system equivalent input noise, sensor noise, dynamic range, geophone DC resistance, THD, natural frequency, damping, sensitivity

¹ Gain option when operating in hybrid with G3i[®] HD

*Typical specifications @ 2 ms @ 25 $^{\circ}$ C