

# Tremornet

(NOW KNOWN AS QUANTUM)



## FEATURES

- All-in-one single component recording unit
- Lightest node on the market today weighing only 650 grams
- Greater than 50 days, 24 Hr operation
- Local 8GB or 16GB data storage

## 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:	Greater than 50 days, 24 Hr operation 100 days @ 12 hours /day
Wireless Communication:	Bluetooth LE
GPS:	L1-GPS /QZSS, GLONASS, BeiDou, Galileo
Timing Accuracy:	+/-20 $\mu$ s
Sensor:	Vertical 5Hz or 10Hz high-sensitivity geophone

## ENVIRONMENTAL SPECIFICATIONS

Charging Temperature:	+5 °C to + 40°C
Operating Temperature:	-40 °C to + 70 °C
Water Immersion:	IP 68

## 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 <sup>1</sup> , 12 dB, 18dB <sup>1</sup> ,24dB <sup>1</sup>
Maximum Input Signal (RMS):	3.535 V @ 0 dB 1.768 V @ 6 dB 0.884 V @ 12 dB 0.442 V @ 18 dB 0.221 V @ 24 dB
Equivalent Input Noise* (RMS):	1.408 $\mu$ V @ 0 dB 0.712 $\mu$ V @ 6 dB 0.368 $\mu$ V @ 12 dB 0.202 $\mu$ V @ 18 dB 0.132 $\mu$ V @ 24 dB
Instantaneous Dynamic Range*:	128 dB @ 0 dB 128 dB @ 6 dB, 128 dB @ 12 dB 127 dB @ 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)

<sup>1</sup> Gain option when operating in hybrid with G3i HD

## AUTOMATED TESTS

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