

# Quantum®

## FEATURES

- All-in-one single component recording unit
- Lightest node on the market today weighing only 650g
- Greater than 50 days, 24 Hr operation
- Local 8GB or 16GB data storage
- Highly visible LED "Health status feedback"



## GENERAL SPECIFICATIONS

|                         |  |
|-------------------------|--|
| No. of Analog Channels: | 1  |
| Data Storage Capacity:  | 8GB non-volatile flash memory<br>(upgradeable to 16GB) |
| Integrated Battery:     | Rechargeable Li-ion                                    |
| Battery Life:           | Greater than 50 days, 24 Hr operation                  |
| Wireless Communication: | Bluetooth LE,  |
| GPS:                    | L1-GPS /QZSS, GLONASS,<br>BeiDou, Galileo              |
| Timing Accuracy:        | +/-20 µs   |
| Sensor:                 | Vertical 5Hz or 10Hz<br>high-sensitivity geophone      |
| Charging Temperature:   | +5 °C to + 40°C  |
| Operating Temperature:  | -40 °C to + 70 °C                                      |
| Water Immersion:        | IP68   |

## PHYSICAL

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

\*Typical specifications @ 2 ms @ 25°C

## 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<br>0.884 V @ 12 dB, 0.442 V @ 18dB<br>0.221 V @ 24 dB     |
| Equivalent Input Noise* (RMS): | 1.408 µV @ 0 dB<br>0.712 µV @ 6 dB, 0.368 µV @ 12 dB<br>0.202 µV @ 18 dB, 0.132 µV @ 24dB |
| Instantaneous Dynamic Range*:  | 128 dB @ 0 dB, 128 dB @ 6 dB<br>128 dB @ 12 dB, 127dB @ 18 dB<br>124 dB @ 24 dB           |
| System Dynamic Range*:         | 148 dB  |
| Total Harmonic Distortion:     | <0.1% with 10Hz HS phone<br><0.2% with 5Hz HS phone                                       |
| Channel Matching:              | Better than 1%  |
| Anti-Alias Filter:             | 3dB @ 0.876 fN (Nyquist)  |

## AUTOMATED TESTS

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

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