

NuSeis™ NRU N1

Autonomous, Continuous, Nodal Recording Unit



**Smaller. Lighter.
Faster. Stronger.**

- Self-contained nodal seismic recording unit
- 1 channel, 24-bit digitization
- Internal and/or external battery
- Internal or external geophone
- Integrated, high sensitivity GNSS
- Electromagnetic wireless data download
- Robust two-part, water-tight polymer assembly
- Aluminum locking rings
- 4 stainless steel contacts for charging & data offload



Seismic Data Channel

1C

ADC Resolution

24 bit Delta Sigma

Sample Interval

0.25ms, 0.5ms, 1ms, 2ms, 4ms

Preamplifier Gain

Programmable 0dB to 42dB in 6dB steps

Anti-alias Filter

- 206.5Hz @2ms, 413 Hz @1ms
- Linear Phase or Minimum Phase

Low Cut Filter

None

Operating Temperature Range

-40° C to +75° C

Operational Autonomy

- 540 Hours
- 12 Hours per day: 40 days
- 24 Hours per day: 20 days

Weight

600 g

Dimensions

5.35 cm x 20.9 cm

Battery

- 13.4Ah Li-Ion
- Charge Temperature Range: 0° C ~ +45° C
- Cycle Life: >500 cycles to 80%

Acquisition Channel

@2ms sample interval, 25°C, 31.25 Hz

- Maximum input signal: 1768 mVrms @0dB
- Total Harmonic Distortion: 0.0001% @31.25Hz
- Instantaneous Dynamic Range: 127dB @2ms
- System Dynamic Range: 148dB
- Equivalent Input Noise:
 - 1500 nV @0dB
 - 400 nV @12dB
 - 160 nV @24dB
- Gain Accuracy: 0.25% unit to unit
- Input Impedance: 100k Ohm
- Timing Accuracy: +/- 12.5µsec customizable at client request

Instrument Test

Internal Noise, Total Harmonic Distortion, Impulse Response

Sensor Test

Resistance, Impedance, Noise

Sensor

- Internal, Single Geophone
 - 5Hz or 10 Hz +/- 3.5%
 - 85.8 V/m/s +/- 3.5%
- Other geophones available upon request

Memory

8 GB standard (expandable to 64 GB)

Learn More at geophysicaltechnology.com

