**Typical Node Specifications**

**Seismic Data Channels:** 4  
**ADC Resolution:** 24 bits  
**Sample Interval:** 0.5, 1, 2, 4 ms  
**Preamplifier Gain**  
0 dB to 36 dB in 6 dB steps  
**Anti-Alias Filter**  
206.5 Hz (82.6% of Nyquist) @ 2 ms,  
Linear Phase or Minimum Phase  
**DC Blocking Filter**  
1 Hz to 60 Hz, 6 dB/Octave, or OUT  
**Operating Temperature Range**  
-10°C to +60°C  
**Operating Life (100% Charge)**  
30 days @ 2 ms sample interval  
**Battery**  
Charging Temperature Range  
+7.5°C to +40°C  
Recharge Time: <8 hours

**Acquisition Channel**  
(2 ms sample interval, 25°C, 31.25 Hz,  
internal test, unless otherwise indicated)  
Total Harmonic Distortion  
0.0002% @ 12 dB gain, -3 dB Full Scale  
Equivalent Input Noise  
0.8 µVrms @ 0 dB  
0.2 µVrms @ 12 dB  
0.1 µVrms @ 24 dB  
0.1 µVrms @ 36 dB  
Full Scale Input Signal  
2500 mV peak @ 0 dB  
625 mV peak @ 12 dB  
156 mV peak @ 24 dB  
39 mV peak @ 36 dB  
Gain Accuracy: 0.50%*  
Dynamic Range  
127 dB @ 0 dB Preamplifier Gain  
Crossfeed  
<-100 dB Geophone Channels  
<-80 dB Hydrophone Channel**  
Common Mode Rejection Ratio  
>+90 dB Geophone Channels  
>+40 dB Hydrophone Channel**  
DC Offset  
<10% of Input Noise with DC Blocking Filter IN  
Timing Accuracy  
CSAC clock

**Self Test Features**  
Internal Noise (preamp input terminated)  
Internal THD  
Internal Gain Accuracy  
Internal CMRR  
Internal Crossfeed  
Internal Impulse  
Sensor Impedance  
Sensor Impulse

**Sensors**  
Geophone  
3 orthogonal, omni directional,  
15 Hz @ -3 dB, 70% damped  
0.57 V/in/s (22.4 V/m/s)  
Hydrophone  
3.4 Hz @ -3 dB, 8.9 V/Bar  
Orientation  
±1.5° tilt indication  
±5° azimuth (at latitudes within ±50°  
of the Equator)

**Physical**  
Weight: 26 lb (11.8 kg) in air,  
12.3 lb (5.6 kg) in water  
Dimensions: 12 in (30.48 cm) diameter by  
4 in (10.16 cm) high  
Operating Depth: 300 m

---

* Does not include high-impedance low-cut filter for directly coupled hydrophone interface  
** Channel includes high-impedance low-cut filter for directly coupled hydrophone interface  
All specifications relate to Node Part Number 221.8072.0001 only. Fairfield Geotechnologies reserves the right to change specifications without notice to provide the best possible product.

Drawing Number 601.0015.0001 Rev. – Z100 Node Preliminary Specifications Sheet  
August 2016

fairfieldgeo.com