

Z700



Typical Node Specifications

Seismic Data Channels: 4

ADC Resolution: 24 bits

Sample Interval: 2, 4 milliseconds

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

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)

Up to 60 days continuous recording

Battery

Charging Temperature Range
+3 °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
0.0003% @ 12 dB gain, -3dB Full Scale

Equivalent Input Noise

1.0 μ Vrms @ 0 dB

0.4 μ Vrms @ 12 dB

0.3 μ Vrms @ 24 dB

0.3 μ Vrms @ 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

120 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

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

$\pm 1.5^\circ$ tilt indication

$\pm 5^\circ$ azimuth (at Latitudes within

$\pm 50^\circ$ of the Equator)

Physical

Weight: 65 lb (29.5 kg) in air, 40 lb
(18.1 kg) in water

Dimensions: 17 in (43.2 cm) diameter by
6 in (15.2 cm) high

Operating Depth: 700 meters

* 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 221.6862.0003 only.
FairfieldNodal reserves the right to change specifications without notice to provide the best possible product.

Drawing Number 601.0002.0003 Rev. -
Z700 Node (Version 3) Specifications Sheet

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