Node Specifications

Mechanical
Weight: 4.8 lb (2.17 Kg)
Height: 6 in (15.2 cm)
Diameter: 5 in (12.7 cm)
Detachable 5-in spike (12.7 cm)

Operating Temperature Range
-40 to +60° C
Battery Charging: +3 to +40° C

Analog
Number of channels: 1
ADC resolution: 24 bits
Sample intervals: 1/2, 1, 2 & 4 millisecond
Preamp gains: 0 - 36dB in 12dB steps
Bandpass: DC to 85.8% Nyquist
Low cut filter: Out-60 Hz in 1 Hz increments, 6dB/octave
Anti-Alias Filter: Fixed by Sample Interval (206.5 Hz @ 2ms), Linear Phase
Distortion (THD)* <0.0006%
Gain acc ch to ch: 0.50%
EIN RMS (preamps shorted)
0 dB 1.8 microvolt
12 dB 0.6 microvolt
24 dB 0.4 microvolt
36 dB 0.4 microvolt
Maximum input signal RMS
0 dB 1,767.5 millivolts
12 dB 442 millivolts
24 dB 110 millivolts
36 dB 27.5 millivolts
Common mode (CMRR)* >90dB

Electrical
Timing accuracy
GPS disciplined to +/- 100 microseconds UTC

Power
Rechargeable Lithium-ion batteries
Longevity: 12 days**
Recharge time: 5 hours - worst case

Flash memory
Capacity: 2 Gbyte
Data interface
Diagnostic: RS232
Data download: proprietary HS serial

Data recording station specifications

Data harvester

Mechanical
Weight:
Empty ~ 250 lb (113 Kg)
Full ~ 460 lb (209 Kg)
Capacity: 48 nodes
Height: 90 in (229 cm)
Width: 48 in (121.9 cm)
Depth: 21 in (53 cm)

An individual data collection and charging rack (DCCR) can process up to 48 nodes. With a five-hour turnaround, each DCCR can process up to 192 nodes per day. Multiple DCCRs can be joined together into a network to increase harvesting capacity.

Data sorter

Mechanical
Equipment rack
Height: 54.5 inch (138 cm)
Width: 24 inch (61 cm)
Depth: 29 inch (74 cm)

Multiple workstations
Flat panel display, keyboard, and mouse

Electrical
Data storage
RAID (Level 6)
Capacity: multiples of 10.5 TB

Output media
MDR, USB, eSATA disks and 3592 tapes

Output format
Receiver gather

*2-millisecond sample rate @ 12dB Preamp gain
**Continuous at 25°C

FairfieldNodal reserves the right to change specifications without notice.