

160 dB of Dynamic Range

- ◆ 3 channel sensor inputs - each channel digitized twice at different preamp gains
- ◆ 3 channels with 0 dB preamp gain
- ◆ 3 channels with 24 dB preamp gain
- ◆ Total of 6 channels stored
- ◆ Uses GPS for clock discipline and location data
- ◆ Internal or external GPS options
- ◆ Internal and external memory options
- ◆ 100K input impedance, compatible with most sensors
- ◆ Standard autonomous operation
- ◆ Optional real-time seismic data collection with SecureConnect “Internet of Things” system
- ◆ Optional external power augmentation for long term deployments
- ◆ Optional external trigger input



The DX6-160 Seismograph

Autonomous Operation Deploy a monitoring station anywhere at any time

DX6-160 seismograph nodes are equipped to record data autonomously. Each node comes with internal GPS, and 8 GB of flash memory. When equipped with optional internal sensors and battery a DX6-160 node can quickly be deployed anywhere at any time.

Autonomous Operation features:

- Internal memory plus optional external memory provides extra data security and fast data recovery.
- Four channels for 3C sensors plus one.
- Records with geophones, hydrophones, microphones and/or accelerometers.
- Includes full featured, complete software package for data collection, file creation and SEG-Y output.
- Same DX6-160 node can be used with IoT network for real-time operation.

Managed Operation Deploy a monitoring station and remotely manage it

DX6-160 seismograph nodes can be networked with cables, Wi-Fi, CDMs, or StarLink for real-time operation. Internet access provides software control from any location. This includes system status and control, plus real-time data collection, file harvesting and SEG-Y output.

Real-Time Operation features:

- Nodes can be networked using Ethernet cables, Wi-Fi transceivers, cellular data modems, or StarLink.
- Optional external power for long-term use.
- Records with geophones, hydrophones, microphones and/or accelerometers.
- Includes full featured, complete software package for data collection, file creation and SEG-Y output.
- Same DX6-160 node can be used without networking for autonomous operation.

DX6-160 Digitizer Specifications

Electrical		Performance (at 500 sps)	
A/D Converter	24 bit sigma delta (24 bits stored)	Dynamic Range	125 dB (x1 gain)
Preamplifier Gains	x1, x4, & x16 (0 dB, 12 dB, & 24 dB)		122 dB (x16 gain)
Max Input (x1 gain)	±3.25 volts (2.30v RMS)	Distortion	0.0001% (x1 gain)
Max Input (x16 gain)	±0.203 volts (0.146v RMS)		0.0001% (x16 gain)
Sample Rates	125, 250, 500, 1k, 2k, 4k, 8k & 16k SPS	Noise	1.2 µV RMS (x1 gain)
Bandwidth	DC to 85% Nyquist		0.15 µV RMS (x16 gain)
Input Impedance	100k Ohms	CMRR	> 125 dB (x1 gain)
Clock Sync	GPS (Ethernet Option)		> 123 dB (x16 gain)
Internal Mesh Radio	Optional	Trigger Accuracy	± 1 µs at all sample rates
Ethernet Network 1	100Base-T or 10Base-T (user selectable)	Physical	
Ethernet Network 2	100Base-T or 10Base-T (user selectable)	Case Type	Aluminum and ABS plastic
Network Links	Ethernet, Wi-Fi, CDM, or StarLink	Size	11.5 in x 7.25 in x 2.25 in
Memory (Internal)	8 Gb (standard, can be upgraded)		292 mm x 184 mm x 48 mm
Memory (External)	16 Gb (standard, can be upgraded)	Weight	3.1 lbs / 1.4 kg
		Power Requirement	9-28 volts DC
		Power Draw	2 watts at 12 volts