

TECHNICAL SPECIFICATIONS

Geode USA	JEA247 ITALY
A/D Conversion: 24 bit result using Crystal Semiconductor sigma-delta converters and Geometrics proprietary oversampling.	A/D Conversion: 24 bit real based on DSPAD BF531, one per channel, Proprietary DOLANG GEOPHYSICAL
DynamicRange: 144 dB (system), 110 dB (instantaneous, measured) at 2ms, 24dB.	Signal/Noise ratio: at 2msec 131.5dB instantaneous
Distortion: 0.0005% @ 2 ms, 1.75 to 208 Hz.	Distortion: 0.0005% average INL: typical 3 ppm max 7.6 ppm
Bandwidth: 1.75 Hz to 20 kHz. Low corner frequency option available	Bandwidth: 1Hz to 1600KHz
Common Mode Rejection: > -100 dB at <=100 Hz, 36 dB.	Common Mode Rejection: -110dB
Crosstalk: -125 dB at 23.5 Hz, 24 dB, 2 ms.	Crosstalk: Not existing
Noise Floor: 0.2uV, RFI at 2 ms, 36 dB, 1.75 to 208 Hz.	Total Noise Input: 0.8uV at 2 msec with open input
Number of channels: 24	Number of channels: Up to 255 with <i>BOXRep</i> every 24 ch
Maximum Input Signal: 2.8 VPP.	Maximum Input Signal: 10 Vpp Input saturation is very hard.
Input Impedance: 20 kOhm, 0.02 uf.	Input Impedance: 1500 ohm
Preamplifier Gains: SGOS software enables selectable gain pair of either 24 or 36 dB. MGOS software selection between jumpered gain pair 12 and 24 dB, gain pair 24 and 36 dB, or 0dB.	Gain: Autoranging
Anti-alias Filters: -3 dB at 83% of Nyquist frequency, down 90 dB.	Anti-alias Filter: 1600Hz 1st order
Sample Interval: 0.02, 0.3125, 0.0625, 0.125, 0.25, 0.5, 1.0, 2.0, 4.0, 8.0, 16.0 ms.	Sample Interval: 0.032, 0.064, 0.128, 0.256, 0.512, 1.024, 2.048, 4.096 msec (32KHz→500Hz)
Record Length: 16,000 samples standard, 64,000 samples optional 2	Record Length: 131,072 samples
Samples before trigger: -----	Samples before trigger: From 0 to half number of samples acquire
Data Transmission: Uses reliable Ethernet connections and requires no custom transmission software. Interfaces directly with network capabilities of Windows 95/98/NT.	Data Transmission: RS485 Line transmission at 3Mhz with USB interface for PC

<p>Acquisition and Display Filters: <i>LowCut:</i> OUT, 10, 15, 25, 35, 50, 70, 100, 140, 200, 280, 400 Hz, 24 or 48 dB/octave, Butterworth. <i>Notch:</i> 50, 60, 150, 180 Hz and OUT, with the 50 dB rejection bandwidth 2% of center frequency. <i>HighCut:</i> OUT, 250, 500 or 1000 Hz, 24 or 48 dB/octave.</p>	<p>On acquisition board: notch at 50Hz or 60 Hz settable filters on acquisition by software Postprocessing: Band pass settable filter Hyperbole fitting Linear velocity Normal move out Frequency Spectrum & MORE</p>
<p>Line Testing: Real time noise monitor displays real-time output from geophones. Optional geophone pulse test helps identify bad geophones and shorted or broken cables.</p>	<p>Real time noise monitor displays real-time output from geophones</p>
<p>Data Storage: Stores data locally on laptop hard drive for transfer to portable media . Additional tape options available. 2</p>	<p>Notebook HD - Gb</p>
<p>Triggering: Positive, negative or contact closure, software adjustable threshold.</p>	<p>Triggering: Contact closing or opening, software selectable</p>
<p>Data Formats: SEG-2 standard with SGOS. SEG-D and SEG-Y available. 2</p>	<p>Data Formats: SU & SEG-Y</p>
<p>Power: Requires 12V external battery. Uses 0.65 W/channel during acquisition, sleep mode reduces power consumption by 70% while in standby.</p>	<p>Power: with internal battery. 24 channes in stand by, 0.6 A consumption 24 channels in acquisition, 1,2 A consumption External aux battery terminals. For 48 ch Ext BoxRep along line</p>
<p>Plotters: Drives a variety of NT compatible printers including Printrex 4, 8 and 12 inch plotters. Consult factory.</p>	<p>Plotting – print available on post-acquisition or processing</p>
<p>Environmental: -30 to 75 degrees C. Waterproof and submersible. Withstands a 1 m drop onto concrete on 6 sides and 8 corners.</p>	<p>Environmental supporting by computers ruggedized MIL-STD 810F</p>
<p>Operating System: Windows XP/W2K/ME/98/NT. An older, limited feature version of the software is available for 95</p>	<p>Operating System: Windows 2000, XP, <i>Vista: Under testing</i></p>