

Geode Seismograph Data Sheet

The Geode is the most versatile seismograph currently on the market for near surface geophysics and exploration. The proven design has stood the test of time to become one of the most widely distributed seismographs in the world; simply because it is ideal for refraction, reflection, MASW, MAM, downhole, VSP or tomography- and even marine surveys. And when you are not using the Geode for exploring, use it for monitoring earthquakes, quarry blasts or vibration from heavy equipment.



A large contributing factor to the success of the Geode is the systems modularity. It is possible to initially buy a simple 24 channel refraction system and keep adding additional hardware and software options as and when they are required, making the system very cost effective.

For light-duty applications, you can run the Geode from your laptop to view, record, and process your data. The software interfaces to the Geode as a simple high-speed network device, eliminating the need for special drivers and cards. For more demanding applications where ruggedness and reliability are key, use the Geode in combination with Geometrics StrataVisor NZXP series seismographs. Geode architecture and Geometrics software lets you build seismic recording systems from 3 to 1000 channels with multiple lines and built-in roll capability.

The low power Geode even have an on-board hardware correlator that can be used for swept sources and MiniSosie (pseudo-random) surveys, compressing data before transmission. The Geode seismic modules house from 3 to 24 channels each and interconnect using inexpensive digital network cable. The Geode will run all day on a small 12v battery and sleeps when not in use. And because getting the answer is key, Geometrics bundles the Geode with a suite of no-charge industry-standard professional software that expands your capabilities for commercial or research applications.

Product Dimensions

Physical	Dimensions (L x W x H)	Weight
(instrument only)	26cm x 31cm x 18cm	3.6kg

Technical Specifications

Channels:	3, 6, 8, 12, 16 or 24. Network multiple Geode Seismographs together to achieve up to 1000 channels.
A/D Conversion:	24 bit result using Crystal Semiconductor sigma-delta converters and Geometrics proprietary oversampling.
Dynamic Range:	144 dB (system), 110 dB (instantaneous, measured) at 2 ms, 24 dB.
Distortion:	0.0005% @ 2 ms, 1.75 to 208 Hz.
Bandwidth:	1.75 Hz to 20 kHz. 0.6 and DC low frequency option available.
Common Mode Rejection:	

Gallery



Typical field set up



Geode configured with the Gisco radio trigger.



48 channel Geode system for MASW

Videos

Geode Tutorial 1

<https://www.youtube.com/watch?v=QN7AN9whlIE>

Geode Tutorial 2

<https://www.youtube.com/watch?v=rtUcHgYNLKQ>

Geode tutorial 3

<https://www.youtube.com/watch?v=HdxG-Vt0S2A>

SeismicTraining Field Setup 1 0

https://www.youtube.com/watch?v=gukNZW_Wh2M

SeismicTraining Field Acquisition software setup 1 1

<https://www.youtube.com/watch?v=EPlikOmg8vw>

SeismicTraining Software Analysis 1 2

https://www.youtube.com/watch?v=TK1_apQ2hQI

SeismicTraining Software Analysis 1 3

<https://www.youtube.com/watch?v=DwAU3AzhbDU>