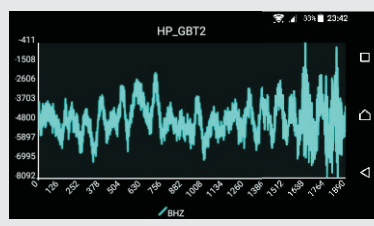


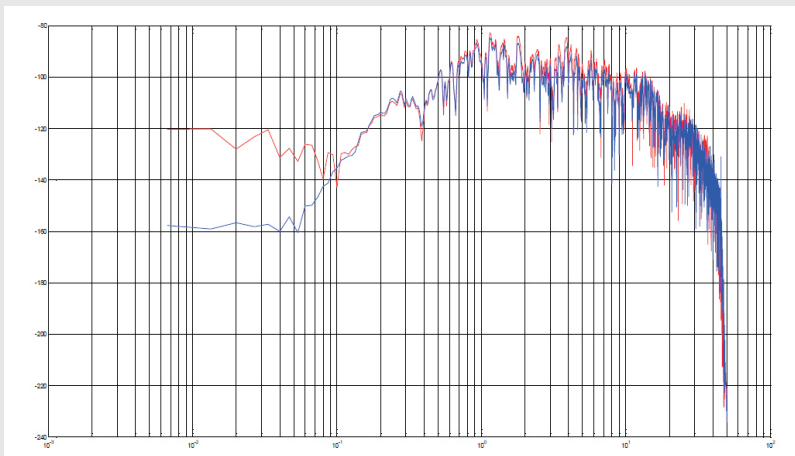
Pay less, get more!

GEObit introduces world's lowest price, compact digital seismometer which integrates seismic and acceleration sensor, 24bit digitizer, local data storage and Seedlink Server for data telemetry. Now supports 20sec sensor!

- ▶ 3 components seismic sensor
- ▶ Low power consumption
- ▶ Cost affordable design
- ▶ Only 130mm D / 155mm H
- ▶ Integrated 24bit digitizer
- ▶ Embedded Seedlink Server
- ▶ Realtime Telemetry and Local Storage
- ▶ MiniSeed data format
- ▶ Linux open source OS
- ▶ Web Interface Menu
- ▶ SSH, SFTP, Telnet
- ▶ Modular seismic sensor design
- ▶ Near Broad Band sensor 20s to 50Hz
- ▶ Customized Sensor Corner Frequency
- ▶ High Sensitivity 1500V/m/s
- ▶ Operation Range: -20 +70°C
- ▶ Waterproof IP67 Aluminum Case



GEOtiny20 is a compact miniature digital seismometer which integrates three seismic and three acceleration channels. It supports high resolution 24bit digitizer, embedded linux OS and GPS or NTP timing. Seedlink server ensures reliable real time data telemetry while large storage volume ensures long period local data recording. The instrument has very low power consumption so it can operate getting powered from a small 12Vdc battery. Due to its small size provides the ability to be buried underground. Modular sensor interface allows the user to select between a variety of sensor types and frequency corners (20sec, 10sec, 5sec, 2sec, 1sec, 2Hz, 4,5Hz), thus covering the short period and wide band seismic range. Design simplicity is the great advantage and it is reflected to the price which is only fraction of the common commercial seismometers. The user is able to deploy even 100% more units than using common seismometers at same cost.



Sensor PSD* compared to a commercial 120Sec sensor
RED= GEOtiny, BLUE = 120sec seismometer

- ▶ Aftershock monitoring
- ▶ Regional Seismicity Monitoring
- ▶ Seismic Tomography Acquisition
- ▶ Induced Seismicity Monitoring
- ▶ Volcano Monitoring
- ▶ Structural Monitoring
- ▶ HVSR, MASW surveys
- ▶ Educational Seismograph
- ▶ Personal Seismograph

*related to 10s-50Hz sensor module

Instrument Specifications

GEOtiny miniature digital seismometer	
DIGITISER	
Channels	Three seismic and three acceleration* channels
A/D converter	Fourth Generation, Delta-Sigma, 24bits
Nonlinearity	+/-0.001%
Modulator	Fourth Generation, 4th order Delta-Sigma Modulator
Filter	Programmable, FIR filtering
Analog Input	Modular sensor board
Sampling Rate	1, 50, 100, 200, 250, 500 samples per second
Power	9-16Vdc, 0.7W, 0.9 with integrated sensor board
Autonomy	One week powered from a 12V/16Ah battery, 28days powered from a 12V/65Ah car battery.
RMS noise	134dB@50sps, 129dB@100sps, 124dB@200sps
DATA RECORDING	
Media	Internal flash card up to 64GBytes
Data file type	Miniseed
Information file	System log file
Recording mode	Continuous or Trigger mode
TIME BASE	
Type	12 channels GPS receiver/DPLL
Accuracy	Time: +/-1usec to UTC time pulse, +/-5 meters to position
Timing Sources	GPS, RTC, NTP*
DPLL drift	Less than 17usec between one hour GPS cycles
COMMUNICATION	
Telemetry	Ethernet port
Connectivity	SEEDlink
LED	5 high brightness LEDs monitoring system SOH
INTEGRATED FORCE-BALANCE SENSOR ELECTONICS (modular)	
Bandwidth	20sec - 50Hz, other low corner freq. available
Technology	Force - Balance technology/ Electrodynamic
Sensitivity	1500V/m/sec
Noise Floor	<142dB
PHYSICAL (SEISMIC SENSOR)	
Type	Surface Type
Dimensions	130mm diameter X 165mm length
Cable length	Standard 5 meters, up to 50* meters
Mounting	Three adjustable legs
Weight	4.6kgr
Tilt	+/-5 degrees-20s / +/-10 degrees-other ver.
ENVIRONMENT (DIGITIZER/RECORDER)	
Temperature	-20 to +70 °C
Humidity	100%, IP67 enclosure
	* = Optional

