GEOtinyAC!
Digital Accelerograph

- 3 components acceleration sensor
- Low power consumption
- Only 130mm D / 115mm 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
- Bandwidth DC - 550Hz
- Sensitivity +/-2G, +/-3G**, +/-5G
- Operation Range: -20 +70°C
- Waterproof IP67 Aluminum Case

Pay less, get more!

GEObit introduces world's lowest price, compact digital accelerograph which integrates acceleration sensor, 24bit digitizer, local data storage and Seedlink Server for data telemetry.

GEOtinyAcc is a compact miniature digital accelerograph which integrates three acceleration channels. Actually is a GEOtiny! seismometer equipped with acceleration sensor. It supports high resolution 24bit digitizer (optional 32bit ADC), 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 burried underground. Design sipmplicty is the great advantage and it is reflected to the price which is only a fraction of the price of common commercial accelerographs. The sensor delivers superior signal-to-noise ratio and broadband response. The accelerograph communicates through ethernet CAT5 connection or wifi. The user has just to plug the power on and connect with the unit. The devise is compliant with the Los Angeles building code.
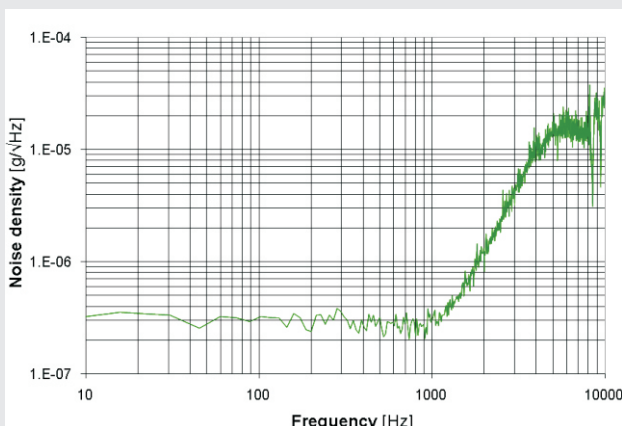
Sensor self noise

- Buildings Structural Monitoring
- Dams Structural Monitoring
- Bridges Structural GEonitoring
- Vibrations Monitoring
- Strong Motion Earthquake Monitoring
- Los Angeles building code Compliant

Monitoring the earth

Instrument Specifications

GEOtiny miniature digital seismometer	
DIGITISER	
Channels	Three acceleration channels
A/D converter	Fourth Generation, Delta-Sigma, 24bits, 32bits*
Nonlinearity	±0.001%
Modulator	Fourth Generation, 4th order Delta-Sigma Modulator
Filter	Programmable, FIR filtering
Analog Input	Modular sensor board
Sampling Rate	50 -200 , 500* samples per second
Power	9-18Vdc , 0.7W, 0.8 with integrated sensor board
Autonomy	One week powered from a 12V/9Ah battery, 36days powered from a 12V/55Ah car battery.
RMS noise	129dB @ 100sps
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, WiFi
Connectivity	SEEDlink
LED	5 high brightness LEDs monitoring system SOH
INTEGRATED FORCE-BALANCE SENSOR ELECTONICS (acceleration)	
Passband	DC – 550 Hz
Noise	6ug/sqrtHz [@1Hz]
Range	±2g ±3g** ±5g peak
Dynamic Range	98dB/114dB**
Sensitivity	2,6 V/g
Spurious resonance	>600Hz
Distortion	<0.03% @ 12Hz and 0.7in/s p-p
Technology	Force – Balance MEMS accelerometer
PHYSICAL (SEISMIC SENSOR)	
Type	Surface Type
Dimensions	130mm diameter X 115mm length
Cable length	Standard 5 meters, up to 50* meters
Mounting	Three adjustable legs
Weight	3.9kgr
ENVIRONMENT (DIGITIZER/RECORDER)	
Temperature	-20 to +70 °C
Humidity	100%, IP67 enclosure
	* = Optional, **=available from Q3 2019