EXACT GLOBAL TEKNOLOGI

GEOtinyAC!
Digital Accelerograph

GEObit
Monitoring the earth

- 3 components acceleration sensor
- MEMS technology
- Low power consumption
- Only 130mm D/80mm 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

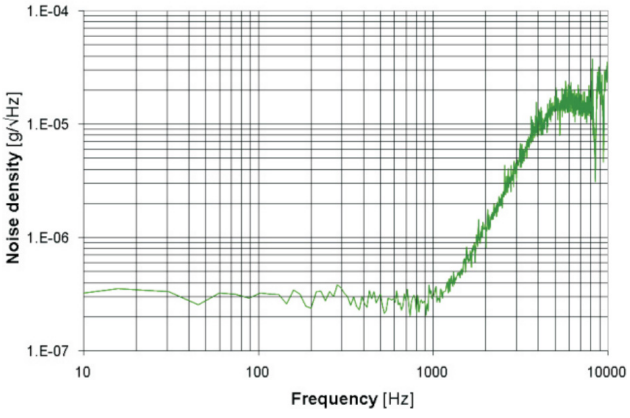


Pay Less
Get more!

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

FEATURES

GEOtinyAC! is a compact miniature digital accelerograph which integrates three acceleration channels. Actually, is a GEOtiny! seismometer equipped with acceleration sensor rather than a velocity sensor. It supports high resolution 24bit digitizer, embedded linux OS and GNSS 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 long when getting powered from a small 12Vdc battery. Due to its small size provides the ability to be buried underground. Design simplicity 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 Wi-Fi. 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 monitoring
- Vibrations monitoring
- Strong motion earthquake monitoring
- Los Angeles building code Compliant

INSTRUMENT SPECIFICATIONS

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GEOtiny MINIATURE DIGITAL SEISMOMETER

DIGITIZER

Channels	Three acceleration channels
A/D converter	Fourth Generation, Delta-Sigma, 24bits
Nonlinearity	±0.001%
Modulator	Fourth Generation, 4th order Delta-SigmaModulator
Filter	Programmable, FIR filtering
Analog Input	Modular sensor board
Sampling Rate	50-400, 500* samples per second
Power	9-18Vdc, 0.8W with integrated sensor board
Autonomy	One week powered from a 12V/9Ah battery, 36days powered from a 12V/55Ah car battery
RMS noise	< 130dB @ 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	GNSS receiver (GPS, GLONASS, WAAS, EGNOS, BeiDou, QZSS)/DPLL, GPS port
Accuracy Time	±1usec to UTC time pulse, ±5 meters to position
Timing Sources	GPS, RTC, NTP, PTP
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
Protocols	SSH, FTP, SFTP, Web Interface, TCP/IP, HTTP, HTTPS, PPP,MQTT, CoAP/CoAPS, NTP

INTEGRATED FORCE-BALANCE SENSOR ELECTONICS (acceleration)

Passband	DC–550 Hz
Noise	6ug/sqrtHz [@1Hz], 0.7ug/sqrtHz [@1Hz]
Range	±2g ±3g ±5g peak
Dynamic Range	102dB/116dB
Sensitivity	2.6 V/g(+/-2g), 0.9V/g(+/-3g)
Spurious resonance	>600Hz
Distortion	<0.03% @ 12Hz and 0.7in/s p-p
Technology	Force – Balance MEMS accelerometer
Calibration	Calibration function from web interface

PHYSICAL (SEISMIC SENSOR)

Type	Surface Type
Dimensions	130mm diameter x 80mm height
Cable length	Standard 5 meters, up to 50* meters
Mounting	Three adjustable legs
Weight	2.2kgr

ENVIRONMENT (DIGITIZER/RECORDER)

Temperature	-20 to +70°C
Humidity	100%, IP67 enclosure
	*=Optional

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