



Gecko Tremor Seismograph

TECHNICAL SPECIFICATIONS

Velocity Sensor	
Type	Passive geophone, triaxial
Output	22 V/m/s (nominal)
Clip Level	909mm/s (at gain x1)
Frequency Response	Flat from 2Hz to >1600Hz
Digitiser & Recording	
Digitiser Type	31-bit ADC, differential or single-ended
Data Channels	3 for internal sensor, 1 for external sensor, synchronously sampled
Input range	40Vpp ($\pm 20V$ at gain x1)
Gain settings	x1, x2, x4, x8, x16, x32, x64, x128, x256, x512
Sample rates (per second)	50, 100, 200, 250, 400, 500, 800, 1000, 2000, 4000
Recorder Noise and Dynamic Range	
Noise level (shorted input)	Less than 1 LSB RMS noise in a 24-bit system @50sps
Sensitivity	419430.4 counts per Volt
Dynamic range (RMS noise vs FS range)	138dB @ 100sps (144dB @50sps, 127dB @4000sps)
Timing	
Reference	Data is time stamped every second from GPS receiver
Accuracy	RMS 30 nanoseconds
Controls	
User Interface	In-built LCD with 4-line text display and 4-button input
File recording	Continuous (always on), Histogram (always on)
Trigger & Alarm	1x STA/LTA, 2x Level Trigger, thresholds set per channel; 2x Alarm Outputs
Pre- and Post-trigger data	Unlimited - user configurable in data extraction software
Data Storage	
Flash memory type	SD card, SLC NAND recommended
Included storage	64GB, hot swappable. Supports up to 2TB SD cards
Continuous recording capacity	Ring buffer capacity greater than 1 year @250sps
File system	FAT32, readable by Windows, Mac & Linux OS
Data format	24-bit MiniSEED (with data-less station information files)
Power	
DC input voltage range	12V DC with low voltage disconnect (optionally 7-30V DC, factory-set)
Consumption	1W
Physical	
Housing	CNC milled aluminium
Dust and Water Ingression Protection	IP68
Operating Temperature (100% R/H)	-20 to +70 °C
Dimensions (without cables)	Ø 136mm, 145mm high
Weight	2.2kg
Data Telemetry	
Connectivity options	RS232 Serial, Ethernet, USB cable, NanoLink (each sold separately)
TCP Socket Streaming	Kelunji protocol to Seismosphere or Streams, SeedLink via NanoLink
Connectors & Cables	
Power port	2-pin plug with 2m cable standard, longer cables available on request
Communications port	6-pin plug with 2m cable, includes RS232 for adaptors, alarm outputs
External 1D sensor port	4-pin plug with 2m cable, 1Hz microphones available separately
GPS connection	Antenna with 7m cable; 33m extension cable available (sold separately)
Installation toolkit	Anchor, setting tool, threaded rod, securing nut, and drill bit included