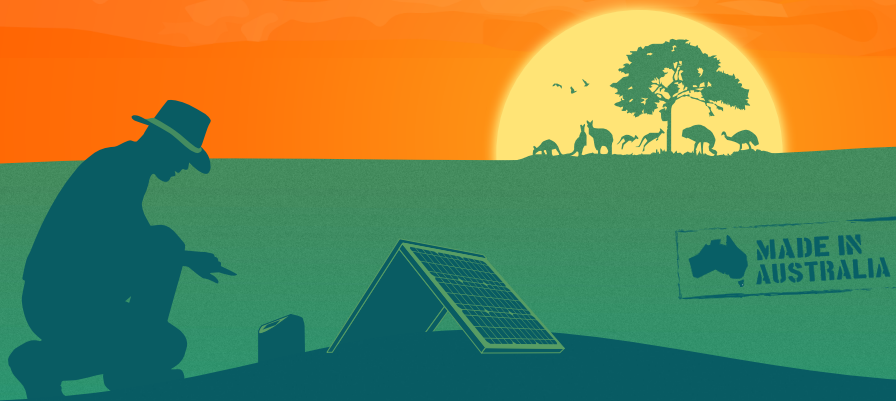




SEISMOLOGY
RESEARCH
CENTRE

GECKO BLAST Vibration Monitor Technical Specifications

Velocity Sensor	
Type	Passive geophone, triaxial
Output	28.8 V/m/s (nominal)
Clip Level	695mm/s (at gain x1)
Frequency Response	Flat from 4.5Hz to >1600Hz
Digitiser & Recording	
Digitiser Type	32-bit ADC, differential or single-ended
Data Channels	3 for internal sensor, 1 for external sensor, synchronously sampled
Full-scale 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	32GB, hot swappable. Pre-formatted cards optional (64GB, 128GB)
Continuous recording capacity	Ring buffer capacity over 1 year (3 channels @100sps)
File system	FAT32, readable by Windows, Mac & Linux OS
Data format	24-bit MiniSEED (with data-less station information files; station.xml export)
Power	
DC input voltage range	11.5 to 24V (no cost option to enable 7 to 30V range)
Consumption (LCD backlight off)	0.95W (1.45W with LCD backlight on, 2 minute backlight timeout)
Physical	
Housing	CNC milled aluminium
Dust and Water Ingression Protection	IP67
Operating Temperature (100% R/H)	-15 to +60 °C
Dimensions (without cables)	Ø 136mm, 145mm high
Weight	2.2kg
Data Telemetry	
Connectivity options	RS232 Serial, Ethernet+WiFi, USB cable, GeckoLink (each sold separately)
TCP Socket Streaming	Custom protocol to eqServer or Streams, SeedLink via GeckoLink adaptor
Remote setup and firmware upgrades	Web interface (eqServer, GeckoLink) or application (Streams)
Connectors & Cables	
Power port	2m standard length, longer cables available on request
External 1D sensor port	IP67 cap, or 4-pin cable plug with 2m cable (sold separately)
GPS connection	Antenna with 5m cable; Up to 90m with high gain aerial (sold separately)
Installation toolkit	Anchor, setting tool, threaded rod, securing nut, and drill bit included



Seismology Research Centre, a division of ESS Earth Sciences
141 Palmer Street, Richmond, Victoria 3121 Australia
sales@src.com.au www.src.com.au