

SL06 seismograph is a high resolution recorder based on Linux o.s. working with standard flash drives. It provides several Internet services like **SeedLink**, FTP client & server to transmit data flow toward the most popular central station recording software like SeismoWin, Earthworm, Seislog, Seiscomp, etc..; Available since 2006 it is a real workhorse of dynamic monitoring; it has been continuously improved from v1, v2 and now with two new versions as v3 (which includes improved digitizer) and frame mount version for easier deployment for indoor installations.

Applications

- * Observatory grade earthquake seismology
- * Reservoir microseismic monitoring
- * Planetary seismology and geophysics
- * Operational Modal Analysis (OMA)
- * Structure Health Monitoring (SHM)

Main features

- * High sensitivity
- * Ultra low noise design
- * GPS synchronised or PPS or NTP when GPS not available
- * Broadband and accelerometer input with combo version
- * Command to broad band sensor for centering and mass lock
- * Geophones special input feature (software set in newer versions)
- * Low power consumption for use in remote installation with limited energy source
- * Wide power supply voltage range
- * Internal battery for safe shutdown on power failure
- * High computing power allowing edge-computing capabilities
- * International SeedLink streaming protocol
- * Networking: TCP, SSH, FTP, http, ModBus, MQTT, Telnet, Telegram, SMS
- * VPN ready for work behind firewalls and NAT filters
- * Temperature and Humidity sensor interface and/or meteo station integration
- * High capacity local data storage
- * Real time measurements according to the UNI9916 norm
- * Automatic frequency peak-picking with frequency shifting alarm report
- * Easy Web browser configuration and management
- * IP68 protection grade version (harsh environment) and IP44 for indoor use
- * Response file in IRIS NRL repository
- * Embedded MEMS accelerometer for extra strong motion channels (optional)
- * Substreaming capability
- * Made in EU (Italy)



Common Specifications

Power supply:	9-36Vdc,
Power consumption:	< 2.5W in standard working mode [§]
Number of channel:	3,4,6,8,9,12 channels 24 bit
Input range:	PGA with ranges 40-20,10,8 Vpp or 10, 5, 2.5 and 2 Vpp for geophones or fixed as 2Vpp or 4Vpp (jumper selectable) or custom
Dynamic range:	144dB system, true 24 bit from 0.1-10Hz @ 200 SPS 32 bit system version available with up to 162dB dynamic range
Sampling rates:	1,2,5,10,20,50,100,200,250,300,400,480,500,600,800,1000,1500 Hz*
Anti Aliasing Filter:	Analog and Digital (FIR) both customizable upon request
Real Time Clock:	GPS disciplined clock +/- 10ppm -20/+50°C
RTC Accuracy:	down to 1µs to the respect of UTC with SPLL locked and PPS available
GPS Antenna:	external with coaxial cable of 10 meters and BNC connector
Messaging:	Telegram alerting for groups, message bot or SMS
Data Links:	Ethernet 10/100, RS232, RS485 (optional)
Mass Memory:	microSD and USB
Data Format:	GSEcm6, GSEint, SAC, SAF, SEED
Recording:	continous and/or on-event trigger
Triggering:	multimode STA/LTA, amplitude, IP voting and scheduled; fully independent, high/low/band pass filter; pre/post event: 1 to 10000 seconds
Operating temperat.:	-20/+70°C
Status of health:	Memory, Power, Vref, Mass Position (for BB) with automatic recentering, peers status (if some units are connected together in voting systems)
Control panel:	LCD 16x2 + 3 buttons for system check and setup
Protection grade:	IP68 or IP44
Norms conformity:	CE, SL06C6-IP68 is also KIGAM (Korean meteo-seismic authority) approved

Broad band, Combo Version and IP68 versions

Housing:	machined out of a solid block of aluminum, wall mount possible
Connectors:	MIL-C-26842 series, with 10, 18, 19, 26 pins depending on configuration
Dimensions:	205x170x107 mm (weight: about 3 kg)

Indoor version specification IP44

Housing:	aluminum
Connector:	for indoor version DBx connectors for I/O and screw terminals for sensors
Dimensions:	177x261x66 mm (weight: about 1kg)

* The maximum sampling rate may be reduced depending on configuration channels from 4 to 12

§ This is the typical power consumption, may vary depending on nr of channels, memory size, active functions

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