



The SL06 BB seismograph is an high performance recorder based on Linux o.s. capable to record the seismic signal at high resolution in standard USB flash pen drives.

The BB version it is specific for reading signals from our SS08 Broad Band Seismometer as well from other Broad Band sensors. Providing **SeedLink** protocol and FTP client & server it can transmit data in real time toward the most popular central station recording software like Seismowin, Earthworm, etc...

## SL06BB

This seismograph in BB version it is a dedicated recorder for Broad Band sensors. It is compact, reliable and flexible, thanks to its recording software, Linux based, SEISMONUX.

Three analogue main channels with sampling rates from 1 to 1500 samples per seconds allow a variety of applications. Auxiliary lower resolution channels allow to monitor more signals coming out from a BB sensor.

## Connectivity

The Linux o.s. offer several native protocols and we added also more protocols, among them: TCP, UDP, HTTP, FTP, SSH, Telnet, MODBUS. The unit can be accessed by console port as terminal emulator both by Ethernet and RS232; this allow fully operativity with any data carrier PSTN, GSM, GPRS, SAT, WAN, LAN, etc. VPN guarantee to reach the instrument even behind firewalls and NAT filters.

## Energy

The low power consumption allow the SL06 to be used in remote installation and powered with small accumulators and solar panels.

## Synchronization

As all our instruments SL06 is equipped with an embedded GPS receiver to synchronize the data flow with the UTC time worldwide used time in seismology.

## Modularity

In our design we always follow a modular approach allowing the instruments to be easily repaired and upgraded. This safeguard your investment and the environment from waste of equipment increasing the duration of the product.

## Development

Our softwares are always updated on a free basis allowing improvements of functionalities constantly done in cooperation with our clients as geophysicists, civil engineers and seismologists.

Among our clients we can list: INGV., Civil Defense Department (DPC), ENEA., C.N.R. (Italia), UNAM (Mexico), AFAD Turkey, and many others; our instruments are operative in all continents from Europe to China, and from Africa to the Americas.

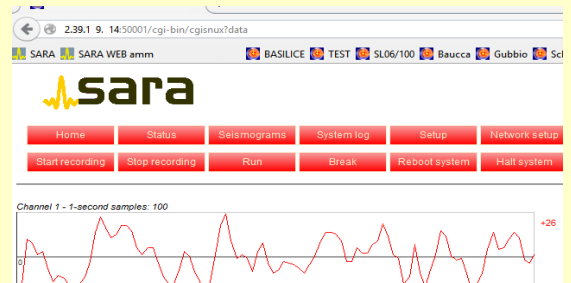
## Applications

SL06BB is excellent for Broad Band sensor recording used in permanent networks, small local networks, single stations, and microseismic networks. It can accept signals from any sensors but especially from Broad Band sensor like our SS08.

A numbers of automation are available inside and allow the automatic send to a data server of all the recorded files to be analysed with modules of SEISMONUX software suite like the DESK (for seismology) or ESCAP module (for engineering). SL06BB can be also used for Nakamura (HVSR) surveys.

Thanks to the WEB based management system you can control the SL06 in a very simple and easy manner.

Customization on the unit are possible, on both hardware and software side.



## Some technical features

- Main channels: differential 3(6) channels 26 bit ( $\Sigma\Delta$ ) achieved from 24 bit ADC with proprietary oversampling method, 6 channels optional
- Sensitivity: 596nV/count (+/-20V differential input)
- Dynamic range: nominal 156dB, effective dynamic range between 0.1 and 10Hz > 142dB
- Input impedance: matched for SS08 output to maximize SNR
- Auxiliary channels: 3 for position mass read U,V,W , 10 bit (+/-10V input span)
- Sampling rates: 10,20,50,100,125,200,250,300,400,500,800,1000,1500 Hz (maximum sampling rate is lower increasing number of active channels)
- Real Time Clock: GPS disciplined clock +/- 10ppm -20/+50°C with TXCO
- GPS Antenna: external with coaxial cable of 10 meters and BNC connector
- GPS time accuracy: < 1 $\mu$ s to the respect of UTC (when GPS active and synchronized)
- Data timing accuracy: +/- 40 $\mu$ s to the respect of UTC (when GPS active and synchronized)
- Mass Memory: USB pen-drives, with EXT2 file system up to 8 Terabytes
- Data Format: GSEcm6, GSEint, SAC, SAF, SEED, miniSEED, SEG2
- Data Links: Ethernet 10/100 and RS232
- Triggering: multimode STA/LTA, amplitude, IP voting and scheduled
- Housing: machined aluminum solid block IP68, wall mounting possible 205x170x107 mm, of weight of about 4kg
- Power supply input: 9-36Vdc (protected against reverse voltage, surge and overcurrent with self-resetting fuses)
- Power consumption: SL06BB less than 2.5W writing and with Ethernet connected @12Vdc when operated with SS08 total power consumption is about 3 Watts
- Shutdown process: battery backup for correct shutdown at sudden power failure
- Operating temperat.: -20/+70°C (humidity 0-100%)
- Sensor connector: MIL-C-26P / 18P + 10P / or other combinations of connector depending on version
- Status of health: Mass position are read and thresholds automatically perform the mass centering when necessary. Remote lock and unlock of SS08 is possible. Upon request SL06BB can be equipped with a calibration signal generator to perform system calibration even remotely.

*Important notice! This paper is an information leaflet onyl; it is published without programmed updates; with the purpose of improve the product all specifications are subjected to change without any prior notice and except error and omissions. When the product is offered in bid document or commercial offer, if differences exist between this document and the commercial or bid offer document, the bid document prevails.*