



The ACEBOX is an high performance accelerograph.

Our powerful SL06 recorder has, in the ACEBOX version, three embedded force accelerometers capable to record the seismic signal at high resolution in standard USB flash pen drives.

Several Internet services are provided i.e. FTP Client & Server services to transmit data, and seismic protocol like **SeedLink** for real time data flow toward the most popular recording software like Earthworm, Seislog, SeiscomP, etc..; all this thanks to the **SEISMONUX software**, flexible and ease to use.

## ACEBOX

It is a dedicated compact accelerograph. It is a reliable and flexible unit thanks to its operating system Linux Embedded and our recording software SEISMONUX.

## Flexibility

Three channels with sampling rates from 1 to 600 samples per seconds allow a variety of applications, from seismic switch to EEW. Thanks to the very high dynamic range and low noise it can be used also as seismometer.

## 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. Virtual Private Networking (VPN) also guarantee to reach the instrument even behind firewalls and NAT filters.

## Energy

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

## Synchronization

As all our instruments ACEBOX is also equipped with an embedded GPS receiver to synchronize the data flow with the UTC time worldwide used time in seismology. Additionally an NTP client (Network Time Protocol) is provided to allow units having no access to the GPS signal to be synchronized with UTC as well.

## 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

Client's feedback allow us to constantly improve the instrument and develop new firmware and its functionalities. Hundreds of geophysicists, civil engineers and seismologists are among our clients list as I.N.G.V., Civil Defense Department (DPC), ENEA., C.N.R. (in Italy) and in many other countries like: Turkey, Chile, Iran, Germany, Spain, Nicaragua, Mexico and more...

## Applications

SL06 is excellent for temporary networks, local networks, single seismic stations, structure health monitoring stations. ACEBOX is the commercial version of SL06 with embedded accelerometer especially suitable for strong-motion field of application.

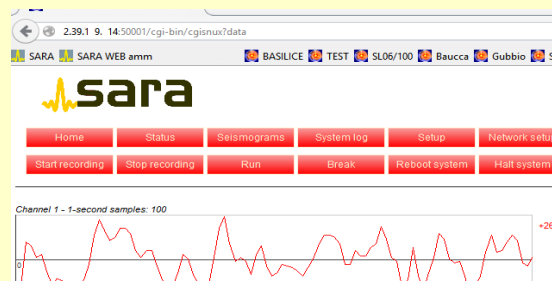
Its ultra low noise can perform background seismic noise measurement providing performance at same and sometime higher level than instrument of higher class.

The robust milled from solid block aluminum case, can resist to high loads in case bulding collapse and then protect the data memory.

With a series of trigger alorhythms it can work in network with other SL06 instruments in order to avoid false triggers or don't miss any small signal. 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).

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

Power :	10-16Vdc / 12-36V option (pws < 2.5W in recording with geophones)
Number of channel:	3 or 6 channels 24 bit ( $\Sigma\Delta$ ) 144dB
Sensitivity:	119nV/count / 238 nV/count (jumper selectable)
Sampling rates:	10,20,50,100,200,250,300,400,480,500,600 Hz
Real Time Clock:	GPS disciplined clock by modulated PPS signal
Precision:	+/- 10ppm -20/+50°C (+/- 40 $\mu$ s to the respect of UTC)
GPS Antenna:	external with coaxial cable of 10 meters and BNC connector
Main CPU:	ARM9
Mass Memory:	USB pen-drives, with EXT2 file system
Data Format:	GSE, SAC, SAF, SEED, miniSEED, SEG2
Data Links:	Ethernet 10-100 and RS232
Housing:	Milled from a solid block of aluminum, IP66/IP67, wall mounting possible
Dimensions:	205x170x107 mm
Operating temperat.:	-20/+70°C option
Sensor connector*:	MIL-C 10 o MIL-C 18

\* From 2010 our 10 poles connettors follow the Lennartz-Electronic™ standard. In this way the recorder is compatible with all this sensor series.

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