

SR-24: Ultra Low Power, 24bit Portable Seismic Recorder

24bit digitizer

Ultra Low Power Consumption

Compact Flash Data Storage

GPS Time Accuracy

1-750 samples per second

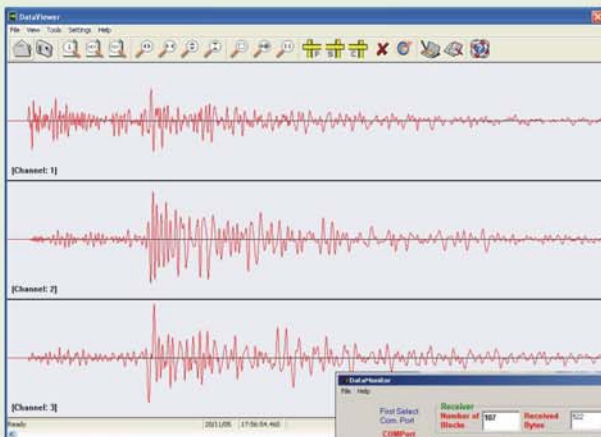
3 input channels

Continuous Recording Mode

Rugged Waterproof Housing

Operation Range: -20+70oC

Communication Plugin



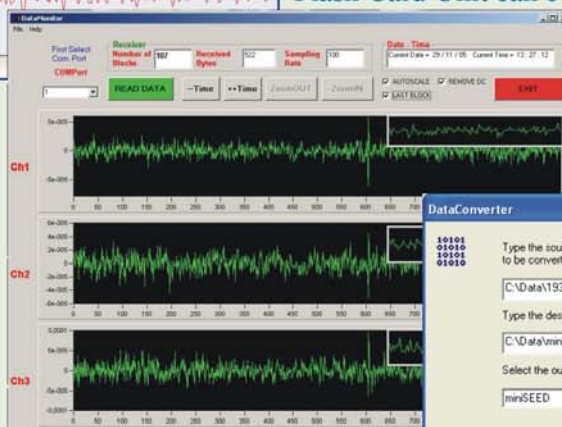
The SR-24 has 3 input channels, and capability for connection to a wide range of sensors. The digitizer is based on a powerful, wide dynamic range delta-sigma analog-to-digital converter, with very low noise characteristics and excellent power supply rejection. The sampling rate can be set to 40, 50, 60, 100, 125, 150, 200, 250, 300, 400 and 500 samples per second. Optional, sampling rates of 1, 2, 5, 10, 20, 25 and 600, 700, 750, 1000 samples per second can be supported.

Data are stored in a Compact Flash type storage unit. Maximum acceptable storage unit is 2 GB, enough to store approximately 26 days data of 3 channels @ 100 samples per second. Optional larger than 2GB Compact Flash Card Unit can be used to increase the recording period.

The power consumption is extremely low, allowing the recorder to operate for long time period connected to a typical 12V/55Ah battery without the need of recharging.

Communication plugin allows the instrument to be connected to any Seiscomp PC.

Seiscomp server collects data from the remote stations



Supported Tools:

Data Viewer

Data Monitor

Data Converter

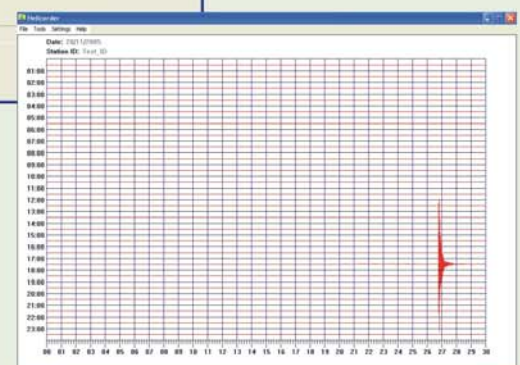
Helicorder

Communication Plugin

Processing Software

The LCD display, displays the State-of-Health, time and date and other information related to the instrument's operation.

Software tools have been also developed to support both field and base station operation. The recorder is intended for installation in harsh environments and is supplied with a portable waterproof plastic case, manufactured of HPX high performance resin, with easy press & pull latches and durable soft-grip handle with easy access to all user features.



Instrument Characteristics

GENERAL	
Number of channels:	3
A/D converter	Sigma-Delta, 312KHz base rate, 24bits resolution
CMRR	Better than -100dB
Input resistance	500kOHms
Sample rates	1-750 samples per second
Power	9-18Vdc, ~1.9W (160mA @ 12Vdc)
RMS noise	130dB @100sps 140dB @ 50sps
Input voltage	+/-10Vp-p bipolar, +/-5Vp-p bipolar, +/-0.5Vp-p bipolar
DATA RECORDING	
Media	Removable compact flash (Up to 2Gbytes, optional more than 2Gbytes)
Data file type	CORE24 format, software format converter available
Additional information	Written on file header: Battery voltage, site position
Recording mode	Continuous
Recording duration	26 days (continuous recording, 3 channels, 100 sps, 2 GBytes CF)
TIME BASE	
Type	12 channels GPS receiver
Accuracy	Time: +/-1usec to UTC time pulse, +/-5 meters to position.
COMMUNICATION	
Telemetry	Over UHF modem
Connctivity	Seiscomp plugin
Connectivity	RS232 port
PHYSICAL	
Size	300mm x 250mm x 120mm
Weight	3.2 Kgr
ENVIRONMENT	
Temperature range	-20 to +70 °C
Humidity	100%, IP67 enclosure.