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Atlas is a robust and reliable digital recorder.

The instrument is equipped with high-resolution delta-sigma 24bit ADCs, all the channels are synchronized and the sample rate is adjustable up to 1000 sps per channel.

The internal memory (up to 1TB) has two independent recording zones: the ring-buffer which is dedicated to continuous sampling, and the triggering which is used for event sampling. The data format is MiniSEED. The built-in GNSS receiver synchronizes the system clock with the absolute time so that a network of several units can be created where all the channels are synchronized. Using the trigger criteria that is available in the firmware, it is possible to distinguish environmental vibrations from seismic events.

ATLAS DIGITAL RECORDER FOR SEISMIC OR STRUCTURAL MONITORING

ADC RESOLUTION 24 bit

DYNAMIC RANGE > 136dB@100 sps

SAMPLING RATE 25, 50, 100, 200, 250, 500, 1000 sps

SYNCHRONOUS SAMPLING

LAN, WIFI

INTEGRATED 4G MODEM (OPTIONAL)

BUILT-IN GNSS RECEIVER

INTEGRATED UPS

INPUTS COMPATIBLE WITH ACCELEROMETERS VELOCIMETERS GEOPHONES MICROBAROMETERS

MINISEED DATA FORMAT

COMPATIBILE WITH EARTHWORM, SEISCOMP, GEOPSY, SEISGRAM2K

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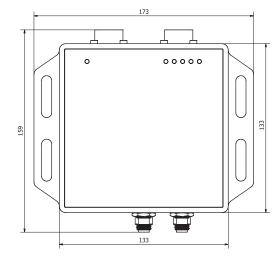
Seismological networks Structural monitoring and surveys Post-seismic damage analysis	APPLICATIONS	FILE TRANSFER Via Ethernet 1 4G modem (optional) WIFI MODE SOFT AP function METADATA RESP file available
INPUT CHANNELS 3, 6 or 9 differential SAMPLING Simultaneous	-	DATA DOWNLOAD Through SCF VPN Compatible with OpenVPN
INPUT IMPEDANCE 90KΩ or opt 2MΩ INPUT VOLTAGE 40, 20, 10, 5, 2.5Vpp SENSOR COMPATIBILITY Accelerometers (FBA, MEMS), Geophones, Seismometers and Microbarometers		FORMAT Seedlink protocol ma common seismic programs so STREAM Seismic and State-of- ALARMS Management towards
ADC Sigma-delta 24 bit synchronous sampling DYNAMIC RANGE > 136dB @ 100 sps SAMPLE RATES 25, 50, 100, 250, 500, 1000* sps *(3 ch active) ADVANCED FEATURES Dual Sampling ANTI-ALIASING FILTER FIR linear or minimum phase ADDITIONAL DIGITAL FILTERS Low-pass and High-pass filter		INTERFACE Web Server CONTROL Connection and mar UPDATES Remote software up ADVANCED FEATURES Multiple (Ethernet, WiFi or 4G) acting
TRIGGERS STA/LTA and threshold independent for each channel AND/OR configuration on all channels Trigger broadcasting towards recorders in the network	TRIGGERS	POWER SUPPLY 9 ÷ 28 Vdc - POWER CONSUMPTION < 2 W SENSOR POWER Provided fror UPS Back-up LiPO battery, aut
FORMAT MiniSEED INTERNAL MEMORY 32GB standard, optionally up to 1TB	AGE	ALARMS Remote alarms mana ACCESSORIES External batter
RING BUFFER DATA RECORDING (16 or 32 days, depending on mem. size) plus strong motion events ADV. FEAT. Periodic generation of ambient noise and post-seismic analysis		STORAGE TEMPERATURE RAN HUMIDITY 0 to 100% OPERATING TEMPERATURE RA
TIMING SOURCE GNSS or NTP - Absolute Time UTC through high sensitive integrated GNSS receiver	VIZATION	*LiPo batteries can be charged in the $$ range $0\pm+45^{\circ}$ If the temperature is out of range, the LiPo battery will b
ACCURACY in GNSS signal loss condition: ± 1 ppm (32 s/year) Accuracy with GNSS signal < 1 μ S	SVNCHROL	CASE Anodized aluminum case PROTECTION GRADE IP67, IP6 DIMENSIONS 17 x 13 x 8 cm
LEDs Heartbeat, 4G, WiFI, GNSS, Ethernet, Power		WEIGHT ≈2 Kg

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BUTTONS Power on/off and WiFi enable/disable on the same button





FILE TRANSFER Via Ethernet 10/100, WiFi (optional) or integrated 4G modem (optional) WIFI MODE SOFT AP function METADATA RESP file available on IRIS DATA DOWNLOAD Through SCP protocol based program or via web interface VPN Compatible with OpenVPN and IPSec	COMMUNICATION
FORMAT Seedlink protocol management for real-time interface with most common seismic programs such as SeisComP and Earthworm STREAM Seismic and State-of-Health ALARMS Management towards remote monitoring server	DATA STREAMING
INTERFACE Web Server CONTROL Connection and management on remote servers UPDATES Remote software update (local network or via internet) ADVANCED FEATURES Multiple units can be connected to the network (Ethernet, WiFi or 4G) acting as a single multi-channel instrument	CONFIGURATION
POWER SUPPLY 9 ÷ 28 Vdc - AC/DC adapter included POWER CONSUMPTION < 2 W (< 800 mW available on request)	- POWER SUPPLY -
STORAGE TEMPERATURE RANGE - $40 \div +85^{\circ}C$ HUMIDITY 0 to 100% OPERATING TEMPERATURE RANGE Without battery - $40 \div +85^{\circ}C^{*}$ *UP batteries can be charged in the range $0 \div +45^{\circ}C$ while discharge is allowed in the range $0 \div -20 \div +70^{\circ}C$. If the temperature is out of range, the LiPo battery will be inhibited by the electronics	OP. CONDITIONS
CASE Anodized aluminum case (AISI 316 stainless steel optional) PROTECTION GRADE IP67, IP68 optional DIMENSIONS 17 x 13 x 8 cm WEIGHT ≈2 Kg	- Physical -

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This datasheet can be reviewed or updated without notice

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