



QUAKELY-PRO

RUGGED ACCELEROGRAPH

For affordable seismic measurements earthquake early warning and structural health monitoring

- High computing power enables edge computing with open data flow, allowing you to write your own applications using the appropriate toolchain.
- Internet connectivity via LAN/WiFi, Virtual Private Network (VPN), and ModBus.
- Local data storage for continuous time series or triggered events.
- International SeedLink standard for real-time data streaming, compatible with SeismoWin, Earthworm, SeisLog, SeiscomP, and more.
- Real-time measurements according to UNI9916 standards; converts measured acceleration to velocity within the required frequency band.
- Low power consumption for remote installations powered by small accumulators and solar panels.
- Easy configuration and management through a web browser.
- Automatic position sensing and XYZ axis relocation.
- Automatic frequency peak-picking with frequency shifting alarm reports.

KEY FEATURES

- ETHERNET AND WIFI
- THREE-COMPONENTS ACCELEROGRAPH
- MEMS TECHNOLOGY
- RANGE +/-2G
- LOW POWER CONSUMPTION
- IP68 WITH INTERNAL LIPO BATTERY
- 20BIT ANALOG TO DIGITAL CONVERTER
- EMBEDDED SEEDLINK SERVER
- REALTIME TELEMETRY AND LOCAL STORAGE
- MINISEED DATA FORMAT
- LINUX OS
- WEB CONFIGURATION INTERFACE
- SSH, SFTP, HTTP, NTP, MQTT, MODBUS
- TELEGRAM ALERTING FOR GROUPS, MESSAGE BOT OR SMS
- STA/LTA, AMPLITUDE, IP VOTING, SCHEDULE, NETWORK TRIGGERING
- OPERATION RANGE: -10 to +50°C
- IP44 ALUMINUM CASE



TECHNICAL SPECIFICATIONS

Power supply:	10-36 VDC
Power consumption:	< 3W (WiFi off, LAN on)
Number of channels:	3 @ 20bit
Sampling rates:	50, 100, 200, 250, 400, 500, 1000, 1200 sample-per-second (sps)
Real Time Clock:	NTP synchronized (local NTP server available upon request), GPS
Mass memory:	microSD internal and USB pen-drives (external)
Data format:	SAC, SAF, GSEcm6, GSEint (others upon request)
Data interface:	Ethernet 10-100 / WiFi (optional with USB dongle)
Protocols:	TCP/IP, HTTP, MQTT, SSH, Telnet, FTP, Modbus, SeedLink, etc.
Messaging:	Telegram alerting for groups, message bot or SMS
Triggering:	STA/LTA, amplitude, IP voting, schedule, network
Case:	ALUMINUM IP68 WITH INTERNAL LIPO BATTERY FOR BACKUP POWER
Operative temperature:	-10 / +50°C
Accelerometer:	MEMS sensor
Noise density:	< 28 µg/√Hz
Resolution:	< 0.1 mg (sine-wave visible at sight in the time series)
Dynamic range:	> 90dB (from peak to time series noise threshold)
Bandwidth:	DC-480Hz (maximum at 1200 SPS)
Cross axis sensitivity:	< 1%
Non linearity:	< 0.1%
Control panel:	Status of health by LED coded flashes and one operating button



APPLICATIONS

- Structure Health Monitoring (SHM)
- Earthquake Early Warning (EEW)
- Seismic Switch (For industrial facility or equipment sensitive to vibrations)
- Modal Analysis (Thanks to its low-noise MEMS sensors)
- Easy Integration to Strong Motion Networks



MAIN FEATURES

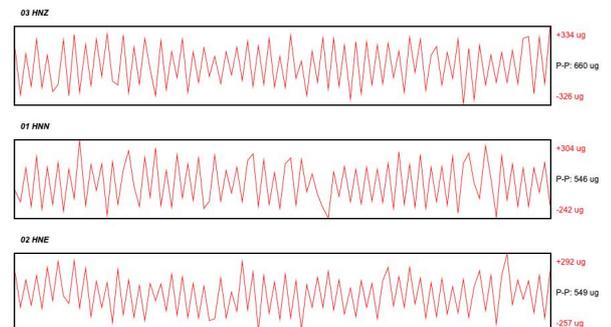
- High computing power with edge computing capabilities
- Open data flow for custom application development
- Internet connectivity via LAN/WiFi, VPN, and ModBus
- Local data storage for continuous or triggered events
- Real-time seismic streaming via SeedLink protocol
- Real-time measurements compliant with UNI9916 norm
- Low power consumption for remote installations
- Easy configuration and management through a web browser
- Automatic position sensing and axis relocation
- Frequency peak-picking with frequency shifting alarm

QUAKELOGIC

Home	Waveforms	Run	Event REC	Events	Setup	Reboot	Time adjust
Status	System log	Terminate	Event STOP	Datalogs	Network setup	Help	UNIS916

TIMESPAN 10 seconds
 VERTICAL SCALE Per channel

2024/12/12 16:57:45 - 10 seconds @ 100 Hz



Notice: This data sheet is an informational only and is published without scheduled updates. All specifications, features, and prices are subject to change without prior notice. In the event of any discrepancies between this document and a commercial offer or bidding document, the latter will take precedence.