EQMet’s TSA-SMA is a very cost-effective 3-channel, 24-bit Strong Motion Accelerograph based on Metrozet’s field proven TSA-100S-D24. The three channels of acceleration deliver data at sample rates up to 5000sps. With its internal TSA-100S high-performance force balance accelerometers, the TSA-SMA delivers lower-noise performance than competitive units or silicon MEMS-based accelerographs.

The TSA-SMA is easy to use and field-ready. It can be configured as an event recorder or a continuous data streamer, or to record during a specified time window. Where Internet service is provided (e.g., Broadband, GPRS, VSAT etc.), the system can be securely accessed from anywhere via a web browser. The TSA-SMA works with public domain data acquisition software such as SeedLink or Earthworm.

Customers around the world have confirmed the high-performance and ease-of-use of the TSA-100S-D24 digital sensor. If you are ready to collect high-fidelity accelerograph data, you are ready for the EQMet TSA-SMA system.

**互联网准备强震仪**

TSA-SMA

**特点**

- 高性能数字仪
- 高性能力平衡传感器
- 24位分辨率
- 非易失性内存（高达32GB）
- 多个数据格式
- 多个实时流客户端
- 通讯方式多样化
- 常用软件包支持
- 内置GPS标准

**对您的益处**

- 通过一套易于安装和使用的系统节省时间和金钱
- 记录高质量数据在适合您的预算
- 低系统噪声地板与4g范围允许一个系统在任何位置使用
- 定制化设计
- 标准用户界面、以太网和USB连接到标准电缆和设备

**操作概述**

通过互联网或LAN进行数据传输。DC电源和GPS模块。
Data Acquisition
Type: 24-bit delta-sigma ADC
Channels: 3
Dynamic Range: 125 dB (0.1 to 40 Hz RMS Noise RMS Clip)
Anti-alias filter: 144 dB Linear Phase FIR Std.
Acquisition Mode: Triggered, time windows - real-time output
Sample Rate: 50, 100, 200, 250, 500sps
Memory Buffer: 1GB standard SDHC card—up to 32GB available

Firmware
Type: Loaded with Kinemetrics limited edition Rockhound®, real-time data collection and processing software
Compatibility: Earthworm, Seedlink
Monitoring: State-of-Health monitoring; input voltage, CPU and memory usage, GPS information, and communication link diagnostics
Data Format: Kinematics EVT, miniSEED, SAC, COSMOS, MATLAB, SUDS, SEISAN, ASCII

Triggering
Type: IIR band-pass filter (three types available)
Threshold: Selectable from 0.01% to 100% full scale
Voting: Internal, external, and network trigger votes with arithmetic combination
Pre-event: Software selectable up to 100s
Post-event: Software selectable up to 65,000s

Timing
System: Internal GPS Engine with 5m Antenna
Time Base: TCXO digitally locked to GPS
Accuracy: < 5μs of UTC with GPS

Sensor
Type: TSA-100S Triaxial, force-balance accelerometer with capacitive displacement sensor, restoring coil and calibration coil
Range: +/-4g
Bandwidth: DC to 225Hz
Cross-axis: < 0.5% including misalignment
Offset: < 0.05g
Hysteresis: < 200 μg peak-to-peak with +/-1g excitation or < 0.005% of full-scale
Non-linearity: < 0.015% total
THD: < -74dB total harmonic distortion

Power
Type: 9-18VDC input, optional power supply from 100-250VAC 50/60Hz.
Battery: Optional external 12V, 35Ah or more
Total: 2W (typical)

I/O
Standard Comm Link: 10/100 Ethernet, USB (Host), USB (Device), RS232 Console

Physical
Enclosure: Aluminum baseplate, RFI-shielded cover with IP67 compliant connectors (when mated)
Weight: 2.3kg (5 lbs)
Dimensions: 20x20x8.4 cm (8 x 8 x 3 5/16 in)
Connectors: Power/Console, RJ-45 Ethernet, Type A USB host, Type B USB device, TNC/BNC GPS Antenna

Environment
Operating temperature: -20° to 60°C Operation
Humidity: 0-100% RH (Non-condensing)

*Specifications subject to change without notice