# S24 Seismograph

The S series of high-resolution engineering seismograph includes four models: S6, S12, S24, and S48. These instruments can be operated from the user's own tablet or laptop computer.

S6/S12/S24/S48 Seismographs

Self-organizing Network Router (Optional)

## Main Features

- **High-resolution:** Each channel features a state-of-the-art 32-bit A/D converter, a high sampling rate of up to 250 kHz, continuous long-duration sampling capability, a bandwidth significantly wider than traditional seismographs, an exceptionally large dynamic range, and channel noise as low as 0.15 μV.
- **Ultra Light-weight:** 2.8 kg (S6/12), 3.5 kg (S24), 7.6 kg (S48)
- **Expandable:** Available with 3 to 6/12/24/48 channels per module.
- **Complete Performance and Line Testing:** Built-in test finds bad geophones, cables.
- **Easy to operate:** Is operated from either Windows 11-based laptop or by tablet computer.

## Specifications

- **Channels:** Configurations available in 6, 12, 24 or 48 channels.
- **A/D Conversion:** 32-bit, one per channel.
- **Dynamic Range:** 186 dB.
- **Distortion:** ±0.05%.
- **Bandwidth:** 0 ~ 30 kHz.
- **Noise Floor:** 0.15 μV, RFI at 2 ms.
- **Maximum Input Signal:** ±10 V.
- **Preamplier Gains:** 1/4, 1, 4, 16, 64 times.
- **Sample Interval:** 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096, 8192, 16384, 32768 μs.
- **Sampling Length:** 0.5K, 1K, 2K, 4K, 8K, 16K, 32K, 64K, 128K, 256K, continuous long-term sampling.
- **Amplitude Consistency:** ±0.1%.
- **Phase Consistency:** ±0.001ms.
- **Crystal Oscillator Stability:** ±30 ppb.
- **Synchronization Method:** GPS synchronization, thermally controlled crystal oscillator quartz clock synchronization.
- **Triggering:** Hammer switch trigger, detonator trigger, GPS timing trigger, signal level trigger, STA/LTA-like algorithm for triggering on seismic waveform.
- **Communication Port:** Ethernet port, Wi-Fi.
- **Power:** Requires 12V external battery.