

Epson products used in the Shiojiri test system

1. Accelerometer measurement system for bridge monitoring

Components	Description
Accelerometer (M-A550AR)	Resolution: $\pm 10\mu\text{G}$ (typ.) Totally protected against dust and against the effect of immersion in liquid between 15 cm and 1 m (IP67). Equipped with RS422 digital interface.
Controller	SD card-based data logging, FFT analysis function, built-in wireless data communication interface
Solar power supply unit	10 W solar panel, built-in 12 V / 10 Ah lead-acid battery and charge controller

The accelerometer-based sensing system runs continuously on a solar battery. The accelerometers continuously monitor and capture accurate data on the state of bridges. Data is automatically sent wirelessly, enabling analysis to proceed even in remote areas.

2. Inclinometer measurement system for hillside monitoring

Components	Description
Inclinometer (M-A550TR)	Resolution: 0.0001deg (typ.) Totally protected against dust and against the effect of immersion in liquid between 15 cm and 1 m (IP67). Equipped with RS422 digital interface.
Controller	SD card-based data logging, FFT analysis function, built-in wireless data communication interface
Solar power supply unit	10 W solar panel, built-in 12 V / 10 Ah lead-acid battery and charge controller

The inclinometer-based sensing system runs continuously on a solar battery. The inclinometers continuously monitor and capture accurate data on the state of hillsides. Data is automatically sent wirelessly, enabling analysis to proceed even in remote areas.