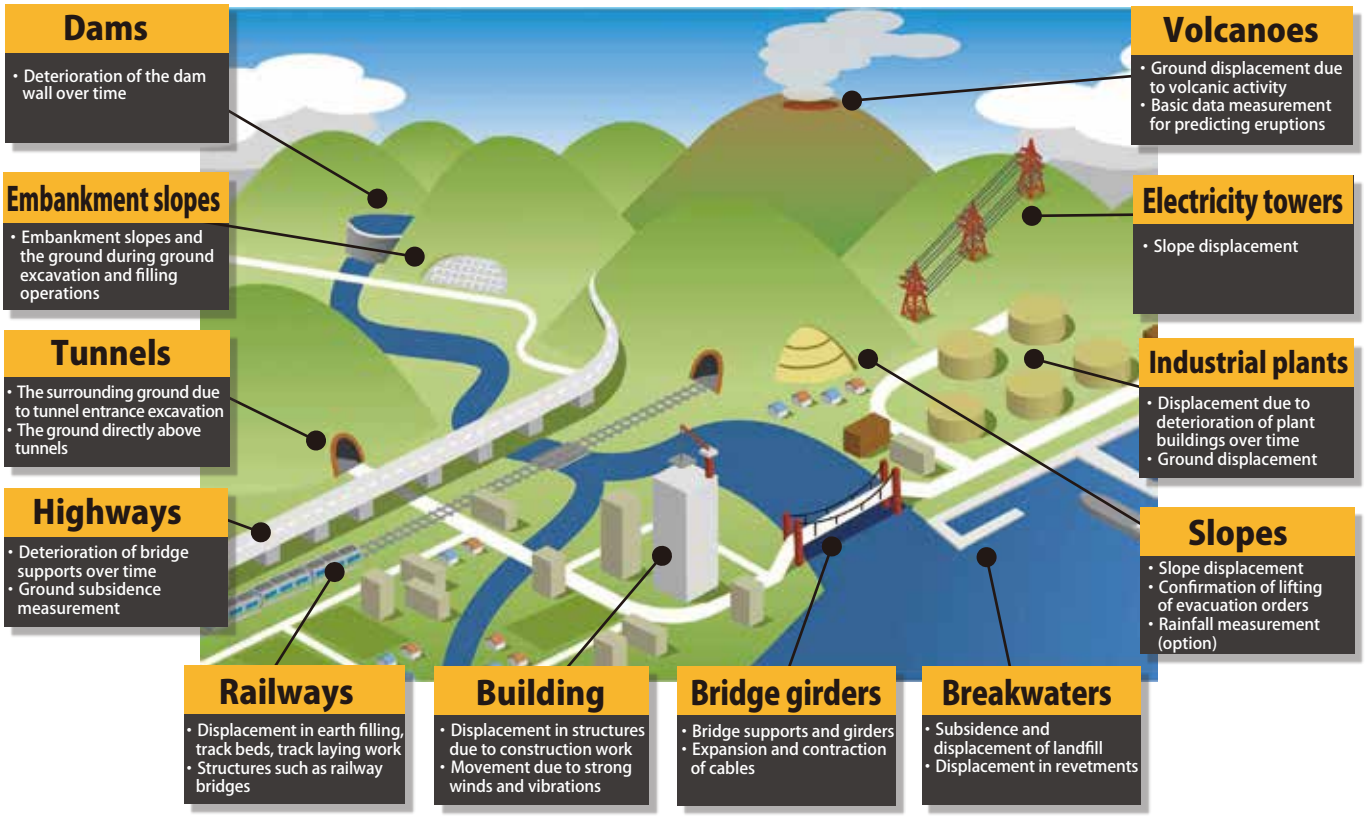
Eagle Eye®

Measures Land Slips and Structural Oscillation with Millimeter Precision

EagleEye is a static position measurement device which utilizes GNSS L1 waves. It can carry out high precision measurement with millimeter accuracy, required in such fields as land slip detection and structure oscillation.

Applicable Fields

EagleEye employs an analysis technique using static interferometric positioning method (static position measurement) based on single frequency GPS. It captures the position data of the GPS measuring point every hour in units of millimeters, and monitors displacement in position data 24 hours a day, 365 days a year.
In addition to long term displacement monitoring of slopes and inclines, it can also be used to measure displacement of large structures such as tunnels, buildings, motorways, railways, and bridges.



Installation Example


Embankment slope displacement measurement


Measurement of ground surface displacement above tunnels


Measurement of displacement of landslide prevention walls

Remote Analysis and Monitoring

Cloud GNSS displacement measurement. Static analysis is carried out automatically at hourly intervals by the cloud server, and displacement can be checked with a web browser. An alert is sent by email if the position exceeds a threshold value.

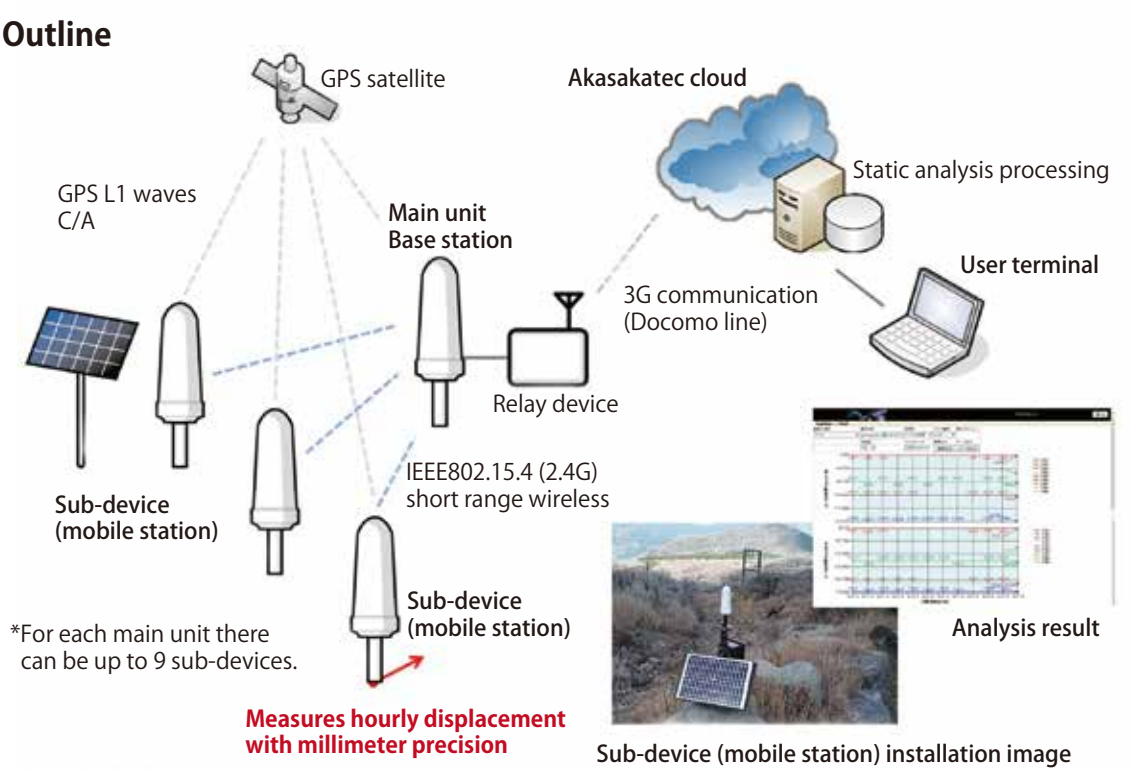
Easy Installation and Wide Area Coverage

Observation stations are powered with solar panels. Because there is no need for cables, it is possible to carry out observations over a distance of several kilometers.

Can be used with natural measurement sensors

Can be used with a variety of natural measurement sensors such as rain gauges, accelerometers and strain gauges, for simultaneous measurement and alerts.

System Outline



Main Specifications

Product name		EagleEye
Measurement specifications	Measurement method	Static interferometric positioning method using L1 waves (1575.42 MHz) (Static position measurement)
	Data epoch time	Every 15 seconds
	Analysis sessions	Every hour/ every 15 minutes (option)
	Analysis precision (estimated)	+/- 2mm rms
	Displacement observation device	For each unit (Base station), a maximum of 9 displacement observation devices (mobile stations)
Displacement measurement device pecifications	External dimensions	190 × 75 × 75mm (not including the attached pole)
	Mass (estimated)	1 kg (not including attached pole and cable)
GNSS specifications	GNSS	L1 C/A code
	Backup battery	Fitted with battery for backing up almanac data
	Raw data output	Proprietary binary format
Communications specifications	Frequency band	2.4 Ghz
	Communication range	Maximum of 500m (Between main unit and sub-devices *The range will vary depending on conditions)

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