

Leica VADASE

Autonomously detecting fast movements in real time



Unique features

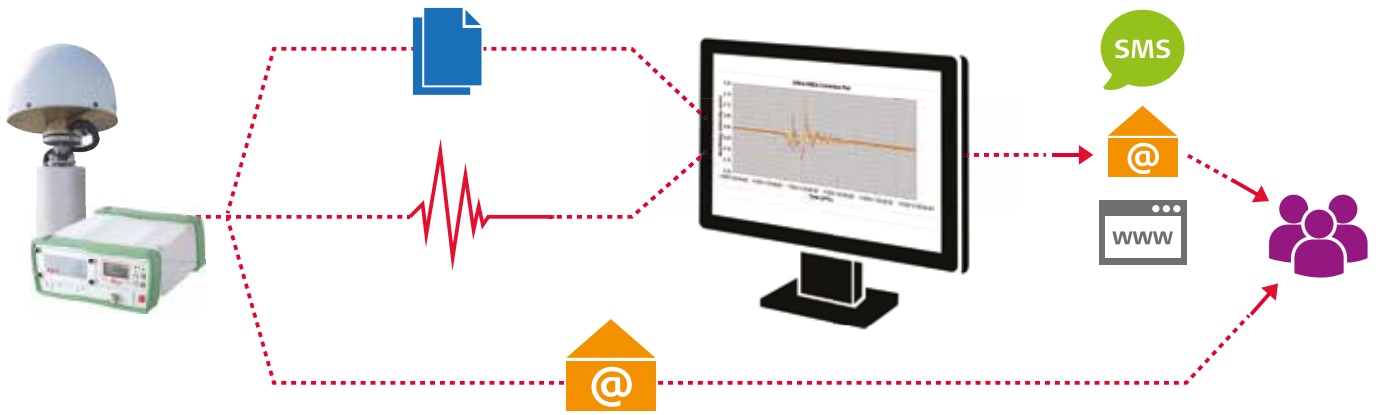
- Fully-autonomous, onboard stand-alone receiver – no GNSS RTK correction services needed
- Instant information on fast relative displacements up to 20 Hz delivered in real time
- 24/7 monitoring
- Integration into early warning systems

Benefits

- Deeper understanding of how and why movements occur to evaluate support and fortification needs
- Assist professionals to take action, to react, to mitigate damage and protect life
- Support fast decision making

The new Leica Velocity and Displacement Autonomous Solution Engine, or VADASE, provides an in-depth look into fast movements of various natural activities and man-made structures. Delivering actionable information in real time, this autonomous solution streams velocity and displacement data at a high frequency.

Leica VADASE



Delivering actionable information in real time

By using unique processing algorithms, Leica VADASE delivers actionable information about fast movements as they occur. The firmware uses standard broadcasted information and observations collected by one stand-alone receiver in real time. The estimated velocities and displacements are streamed using new NMEA messages.

Users can apply the latest version of Leica SpiderQC, Leica GeoMoS or any other customised solution for data visualisation, analysis, threshold verification and notification. As soon as pre-defined limits are exceeded, responsible parties instantly receive a notification to take necessary actions. Traditional GNSS monitoring systems require additional hardware or infrastructure for differential processing (i.e., one or more reference stations or a global correction services for precise point positioning). Leica VADASE provides autonomous processing capability without the need for this extra equipment or services.

Innovation in after-impact applications:

For applications needing instant information about the impact to nature and infrastructure after hazardous events:

Seismology

- Co-seismic displacements
- Waveforms retrieval and analysis

Early warning & safety systems

- Natural and man-made hazards (volcano, earthquake, fracking, blasting)
- Infrastructure elements close to potential hazards

Structural monitoring & reference stations

- Complements traditional monitoring methods
- Enhances structural and geotechnical engineering monitoring (buildings, pipelines, oil platforms)

Leica VADASE is available for:



Leica GR10



Leica GR25



Leica GM10



Leica AR10



Leica AR20



Leica AR25

Precise GNSS reference station antennas:



SAPIENZA
UNIVERSITÀ DI ROMA

Leica VADASE is developed in partnership with the University of Rome, La Sapienza.

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- when it has to be **right**

