

MSR HALO™

Full scan envelope and
flexible scan selection
options



**Exceptional coverage, long
range, high resolution**

Encapsulating a full scan envelope at high speed over
long ranges, tailored to acquire data in support of
tactical and strategic monitoring campaigns

MSR Halo is a Synthetic Aperture Radar (SAR) system for slope stability monitoring, delivering 360° omnidirectional coverage with an extended range of up to 5 km. Designed to support both tactical and strategic monitoring campaigns, MSR Halo provides high spatial resolution for detecting micro-deformational ground movements. Paired with the cloud-based MSR Halo software, the system ensures complete accessibility, intuitive use, and advanced alarming capabilities, making critical insights available anywhere and anytime.

The Build

The system can be supplied in different configurations to suit site requirements. Options include mobile deployment, fixed installation, or portable deployment, with power provided through generator, battery, solar, or mains supply.



Portable deployment



Mobile deployment



Fixed Installation

Fully geo-referenced

Monitoring data from MSR Halo is fully geo-referenced to the mine's coordinate system. This ensures accurate spatial correlation and easy integration with third-party analysis tools.

Cloud-Based Software

The MSR Halo software is a cloud-based, web platform designed to give users simple and reliable access to radar data from any location. Whether on site, in the control room, or working remotely, teams can log in to view measurements, configure alarms, and track slope behaviour in real time. The system is optimised for efficiency, making it easy to stay informed and responsive even in remote areas with limited connectivity. Regular updates ensure the platform remains current and uninterrupted.



Technical specifications

- **Scan envelope**
360° azimuth and 60° elevation
- **Scan time**
1 Minute
- **Operational range**
Between 30m and 5 000 m
Between 98.4 feet - 16404.2 feet
- **Spatial resolution**
Range 0.3m, Azimuth 5.1 m @ 1 000 m
- **Accuracy**
Sub- millimete
- **Software**
Cloud-based
- **Power supply**
Portable power supply with external power
Autonomous mobile power supply
- **Deployment options**
Fixed, mobile or portable
- **Environmental specifications**
Temperature:
Standard: -30°C to +55°C
-22°F to 131°F
Wind speed: 110 km/hr (mobile or fixed)
68 mph
- **Communications**
Wi-Fi
4G
5G