

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. It is now deployed on the Reutech Eco PSU, a trailer-based hybrid power supply system designed to provide fully autonomous operation for MSR Halo™.

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.



Rapid Deployment. Dependable Uptime.

The Eco PSU combines solar energy, lithium battery storage and automatic generator backup to provide dependable power to the radar and approved ancillary products.

By prioritising solar energy before generator backup is required, the Eco PSU reduces reliance on diesel and provides a greener, more sustainable power solution for the MSR Halo™.

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 0.3 m (11.8 in), azimuth 5.1 m (16 ft 9 in) @ 1,000 m (3,280.8 ft)
- **Hybrid energy sources**
3 × 450 W solar (1.35 kWp) fixed at 10°;
optional 500 W wind turbine; 15 kWh lithium bank (3 × 5 kWh); 100-litre (26 gal) diesel with auto-start at 20% battery state of charge; 110/220 V external charging
- **Communications**
Wi-Fi, 4G, 5G, Starlink
- **Power supply**
Reutech Eco PSU hybrid: solar, optional wind, lithium battery storage, EPA 5 compliant generator, or external mains
- **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 (68 mph) [mobile or fixed]
- **Accuracy**
Sub- millimete
- **Software**
Cloud-based