REUTECH
AUSTRALIA

MSR Modular

A Configurable Strategic & Tactical Monitoring Solution



Designed for changing monitoring requirements & flexible deployment

MSR Modular is Reutech Mining's Real Aperture Radar (RAR) platform for strategic and tactical slope stability monitoring.

With configurable scan regions, multiple monitoring range options and flexible deployment, MSR Modular can be configured around the monitoring requirements of the operation. True 3D measurement, sub-millimetre measurement accuracy and monitoring ranges of up to 4,000 m provide geotechnical teams with accurate spatial and deformation data across changing monitoring requirements.

As mining progresses and areas of concern shift, MSR Modular provides flexibility across monitoring range, scan regions and deployment. Deployed on the Reutech Eco PSU, a greener solar-first power platform, it supports continuous monitoring as operational requirements change.

Flexible Deployment as Mining Progresses

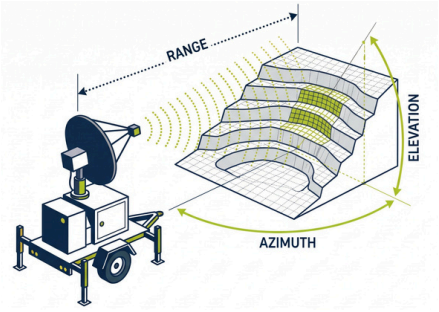
Monitoring positions can change as mining progresses, access changes or the area of concern moves. MSR Modular supports trailer-mounted deployment on the Eco PSU, vehicle-mounted and fixed configurations, as well as patented non-level deployment to within 15°.







Real Aperture Radar with True 3D Measurement



MSR Modular uses Real Aperture Radar technology to measure slope deformation in three dimensions: range, azimuth and elevation. The measured 3D point cloud enables MSR Modular to generate its own Digital Terrain Model (DTM) and position measured data accurately in three-dimensional space without requiring an external DTM. When georeferenced, these positions can be represented within the mine's reference coordinate system.

Greener Power with the Eco PSU

MSR Modular is deployed on the Eco PSU, the solar-first hybrid power platform shared across Reutech Mining's radar portfolio. By prioritising solar energy and lithium battery storage before the EPA 5 compliant generator is needed, the Eco PSU minimises engine runtime and reliance on diesel, providing a greener, more sustainable power solution.



Technical specifications

- **Radar technology**
  Real Aperture Radar (RAR)
- **Monitoring range**
  MSR060: 30 m to 600 m (98 ft to 1,969 ft)
  MSR120: 30 m to 1,200 m (98 ft to 3,937 ft)
  MSR250: 30 m to 2,500 m (98 ft to 8,202 ft)
  MSR400: 30 m to 4,000 m (98 ft to 13,123 ft)
- **Data point spacing at 1,000 m**
  Range: 0.5 m
  Azimuth: 4.4 m
  Elevation: 0.44 m
- **Scan time**
  Az 90° / El 30°: 45 seconds
  Az 60° / El 80°: 80 seconds
  Az 120° / El 45°: 90 seconds
- **Measurement accuracy**
  Sub-millimetre
- **Operating temperature**
  Standard: -30°C to +55°C (-22°F to 131°F)
  Low-temperature kit: -50°C to +55°C (-58°F to 131°F)
- **Wind**
  Up to 110 km/h (68 mph)
- **Power supply**
  Eco PSU: solar-first hybrid with lithium battery storage and EPA 5 compliant backup generator
- **Georeferencing**
  Auto Georeferencing (high-accuracy GNSS, RTK where available) or manual (total station survey control)
  Rapid Align™ database continuity after redeployment
- **Antenna movement limits**
  Azimuth: ±93°
  Elevation: -37° to +92°

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Reutech reserves the right to amend the characteristics of its products at any time.