



## + SSR-FX

## MAKING MINING SAFER

Designed to detect new risks and hazards, the SSR-FX covers vast mine areas for longer periods to provide geotechnical peace of mind.

A 2D Real Aperture Radar, the SSR-FX monitors broad areas through a thin vertical stripe that quickly sweeps around the wall of the mine site, left to right, detecting hotspots of movement, even in areas that are not critical to current mine operations.



# Features and Benefits

## FAST, BROAD COVERAGE MONITORING

For detecting new risk areas across vast areas, a broad-area monitoring strategy is required. SSR-FX does this best by generating a thin vertical strip on the wall that is rotated fast, left-to-right – like a fan.

With its 210° scan capabilities, the SSR-FX can monitor a broad 7km wide pit in an instant.

## FASTEST END-TO-END SCAN TIME

With an end-to-end scan time of less than two minutes, better data quality over a large area is ensured. The SSR-FX sweeps 210° in just 27 seconds to acquire the raw data in one data set, with no stitching required.

In-built processing at the radar ensures no latencies or delays in the transfer of data to the Primary Monitoring Point. The fully-processed data is immediately available for viewing and alarming at the end of every two-minute scan; a feature specifically unique to GroundProbe.

The SSR-FX's high-speed scanning capabilities allow the system to manage changes in the atmosphere and deliver data faster, whilst also tracking fast-moving walls.

## HIGH RESOLUTION PERFORMANCE

With a pixel resolution of over 1.4 million per scan, updated every two minutes, the SSR-FX allows its users to identify new risks and hazards to make quick and accurate in-pit decisions.

The SSR-FX is a Real Aperture Radar that generates fine azimuth angles and small range pixels, delivering real aperture radar measurements you can trust.

## ENHANCED PLAN VIEW

SSR-FX uses an intuitive, patented Plan View visualisation method that represents radar data and multiple layers of mapping data from above. At the centre of the visualisation is an eyeline that links the plan view with high-resolution photographs taken by the radar. The two projections are linked, tracking together, enabling its users to view an entire pit at a glance to instantly detect and locate any hazards.

## HIGHLY MOBILE, FAST AND FLEXIBLE DEPLOYMENT

The SSR-FX is highly mobile and quick to set up. Equipped with an in-built electric jack kit, the SSR-FX can be safely deployed by one user quickly and with minimal physical exertion or risk.

Flexible to site-specific needs, the system is also available in a fixed deployment model and as a medium-antenna solution, the SSR-FM.

## ROBUST, RUGGED AND RELIABLE IN ALL CONDITIONS

The SSR-FX is extremely durable; proven to reliably operate in inhospitable environments that have included intense sun, rain, wind, snow and humidity.

Mechanically sound and delivering reliable data, the SSR-FX can be deployed at mine sites that range in temperatures from -25°C to +55°C, and sit as high as 5000m above sea level.

## DATA AND IMAGE CO-REGISTRATION

The SSR-FX includes a high resolution, integrated imaging system for real-time photographs that are co-registered with the radar data; a technique unique to and patented by GroundProbe.

When the data is visualised, the deformation heatmap is draped over the high-resolution image. By clicking on any part of the image, movement can be reviewed and assessed live, with confidence.

## SSR-VIEWER AND MONITORIQ COMPATIBLE

The SSR-FX is fully compatible with GroundProbe's patented software, SSR-Viewer, and its entire suite of charting, analysis and alarming tools.

All data collected can also be directly imported into data aggregation software MonitorIQ, allowing users to visualise SSR-FX and other geotechnical sensor data in a standardised format to run analysis, discover trends and generate powerful reports.