



+ SSR-Omni

The SSR-Omni is a full-coverage, high-resolution monitoring solution that delivers beautiful data.

Delivering unique real aperture measurements you can trust, the SSR-Omni is a high-confidence, real-time monitoring and alarming system.

HIGHEST RESOLUTION WITH THE SHARPEST DEFINITION

With its fine spatial footprint defined by its 2.74m aperture baseline, the SSR-Omni is the highest resolution rotational radar in the market.

MAKING MINING SAFER

It is also equipped with the sharpest of definition modes; selectable between 0.08, 0.24 and 0.33 degree pixels, each at 0.1 millimetre accuracy.

Its small pixel size allows its users to confidently locate and distinguish true areas of movement, with it the ability to see smaller movement earlier.

HIGH RESOLUTION WITHOUT THE EXCESSIVE DATA SIZE

Intelligent processing algorithms reduce the size of raw data by 96.5%, ensuring the smallest possible file size.

With only 9 megabytes of data per full-coverage 360° scan at 0.24 degree pixels, the data size reduction allows for critical monitoring even over a slow Wi-Fi link.



Features and Benefits

DATA DELIVERED FASTER

The SSR-Omni has an end-to-end scan time of just two minutes for a full-coverage scan.

It sweeps 360° in just 40 seconds to acquire its raw data and processing occurs at the radar in real time.

Fully-processed, usable data is delivered with every two minute scan without latency or delay.

MECHANICALLY ROBUST AND A HISTORY OF RELIABILITY

The SSR-Omni is built on GroundProbe's latest SSR platform, backed by a long history of reliability, uptime and proven mechanical engineering.

On-board is the most reliable hybrid diesel generator system in the radar industry. It's built tough, runs independent of weather and meets all current emission standards, globally.

SUPERIOR-RESOLUTION, PANORAMIC CAMERA

The SSR-Omni's on-board imaging system is 40 megapixels in resolution, captures a full 180° panoramic view in one take and features 21 levels of zoom; able to capture the whole 360° scene fast.

High sensitivity lenses, together with true IR Cut night vision and innovative pixel binning, allow the camera to perform strongly in low-light scenes.

An IP66 rating together with internal heaters and blowers ensure condensation is managed and the system is protected from harsh mining environments.

REMOTE INSPECTION WITH DUAL-FEED, LIVE VIDEO

STREAMING

Through its imaging system, users can conduct remote, real-time inspections, 180 degrees at a time.

Its dual-feed, live video streaming and forensic zoom allows both the full panoramic and zoomed area of interest to be shown on the one screen.

Without leaving the office, users can zoom live in real-time or after an event with video playback.

ALL-ENCOMPASSING 360° SCANS

The system provides full-coverage, 360° monitoring. Completing a 360° acquisition every 40 seconds, all new risks and deformation hotspots are detected quickly so that users can act on them fast.

LONG RANGE, EXTENSIVE COVERAGE

The SSR-Omni has a range of up to 5.6km with 11.2km coverage in-pit, easily meeting the needs of the world's biggest mines. Even at its longest range, the system maintains the highest resolution qualities with a sub-bench pixel size, ensuring precise, usable data.

ULTRA-PRECISE POSITIONING, IN-BUILT TILT SENSING AND

AUTO-GEOREFERENCING

The SSR-Omni is equipped with an all-in-one GNSS, giving its users information about their radar's location, alignment and tilt with centimetre-level precision. With geospatial positioning technology built-in, the radar's location is also automatically geo-referenced in SSR-Viewer.

NEW INDUSTRY-DISRUPTING ATMOSPHERIC ALGORITHM

Three years in the making and a radical departure from current atmospheric correction methods, the new algorithm manages atmospheric better than ever before to deliver the cleanest data possible.

3D PIXEL SELECTION

Users have the ability to select individual or groups of pixels for analysis in our 3D visualisation, allowing for full analysis and charting capabilities on the one screen.

DATA AND IMAGE CO-REGISTRATION, MARKET-LEADING

VISUALISATIONS

In SSR-Viewer, the data is visualised as a deformation heatmap and linked directly to the scene, providing spatially co-located information of every point. SSR-Omni users can choose between two of our renowned data visualisation methods for analysis – 3D DTM View or Plan View.