



## SSR-SARx

### LONG-RANGE, LONG-TERM SLOPE STABILITY RADAR

GroundProbe is proud to introduce the SSR-SARx; the highest resolution and longest range synthetic aperture radar (SAR) with a 4.5 kilometre range.

#### ADVANCED LONG-RANGE TECHNOLOGY

With the longest range available in the market today, SSR-SARx can monitor out to 4.5 kilometres with 50 per cent more resolution than any other SAR system. It has the ability to continuously collect years of data to detect both fast and slow moving failures, to keep your mine site safe and to maximise productivity.

#### TRUSTWORTHY AND RELIABLE PARTNERSHIP

GroundProbe has partnered with Italian radar developers, LiSALab who bring 12 years of landslide monitoring experience and reliability with SSR-SARx. LiSALab was the first company to bring SAR to the global market, meaning the SSR-SARx is a mature and reliable product that is the 6th generation of SAR hardware the company has commercialised.

#### LIGHT DATA AT LIGHTNING SPEED

GroundProbe has added its industry-leading know-how to the system, including its high resolution integrated imaging system for real-time photographs that are aligned with the radar data. The system also includes GroundProbe's renowned intelligent signal processing power, allowing SAR data to be processed at the radar. This feature gives no delay in data, meaning every scan is completed and processed in two minutes ready for viewing and alarming. The processing algorithms reduce the size of raw SAR data by 96.5 per cent, meaning you can critically monitor even over a slow WiFi link.



### MAKING MINING SAFER

#### UNRIVALLED RESOLUTION AND PROCESSING

SSR-SARx boasts stunning resolution with pixels of 0.083 degrees by 75 centimetres, and has a two minute scanning, processing and alarm time with no latencies or delays. All processing is done at the radar to maintain the smallest possible file size for easy and seamless transferrable WiFi networks. Processing is also inbuilt with no need for unreliable laptops to be left in the pit, and without the need for super computers in the office.

#### SHARED SOFTWARE AND SERVICES

SSR-SARx uses SSR-Viewer software, and is backed up by GroundProbe's global support team operating in over 25 countries with a direct presence in 11 countries. These synergies are designed to save you time and money when you need it most.



## FEATURES AND BENEFITS

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| <ul style="list-style-type: none"> <li>• SSR-SARx glides on its rail without starting and stopping in a patented “on the fly” acquisition method. This allows the fastest SAR scan speeds, with acquisition through to alarming taking only two minutes.</li> <li>• Rugged standalone system with embedded processing and analysing capabilities</li> <li>• Designed for a quick and easy installation</li> <li>• Provides data, information and alarms, and also controls from remote locations through different cabled and wireless connections</li> <li>• A small and light system with low power consumption, SSR-SARx is a highly reliable patented system</li> <li>• Three-metre rail provides the highest resolution</li> <li>• Designed for real-time, safety-critical monitoring in even the harshest environments</li> </ul> | <ul style="list-style-type: none"> <li>• Allows permanent continuous 24/7 monitoring over many years</li> <li>• Integrated visual imaging system for real-time photographs of the scan area</li> <li>• Ability to set up quickly and monitor with or without surveying or mine plan integration</li> <li>• Compatible with SSR-Viewer analysis software</li> <li>• Longest range system of 4.5 km</li> <li>• Uses GroundProbe’s stackable alarms</li> <li>• Allows monitoring campaigns and detection of very slow deformations over long periods of time through a precise redeployment technique</li> </ul> |
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## OPERATIONAL SPECIFICATIONS:

### Angle of View:

Azimuth: 60°@3dB, 110°@3dB  
Elevation: 60°

### Communications:

Integrated wireless link or connect to mine network

### Operating Range:

SSR-SAR x: 1 0 to 4,500 m

### Power Supply:

Inbuilt DC generator and batteries or connect to AC mine power

### Scan Time:

Two minutes

### Data Latency:

Nil

### Primary Monitoring Location:

At radar, in office or remote site

### Atmospheric Correction Time:

Instantaneous (no set-up delay). Corrected data available for analysis and alarming from the second scan.

### Deployment Options:

Mobile and fixed install



## ENVIRONMENTAL:

**Altitude:** 0 to 5,000 m

**Humidity:** 5% to 99%

**Rainfall:** 0 to 100 mm/hr

### Temperature:

Standard kit: -25°C to +60°C

Extreme kit: -40°C to +60°C

Cold weather shelter available

### Wind Speed:

SSR-SARx: 100 km/hr