User Cases













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MS-SAR5300

INTEGRATED TRAILER RADAR

All-weather, Non-contact, High-precision, Large Range

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Integrated Trailer Radar

The MS-SAR5300 is a trailer-mounted radar monitoring station designed to adapt to dynamic monitoring needs in large open-pit mines. It enables rapid deployment to rescue sites, conducting comprehensive, large-scale, high-precision, multi-modal, fast, and real-time scanning of the surrounding area.

This system monitors geological surface deformation and provides real-time audio-visual alerts, making it ideal for tracking ground displacement in disasters such as landslides, collapses, mudflows, and floods. By enhancing monitoring accuracy and early warning timeliness, the MS-SAR5300 significantly improves disaster response effectiveness.

- Non-contact Remote Sensing Monitoring
- 360° Coverage up to 5km
- Multi-Sensor Support Multiple Disasters Monitoring
- 24/7 All-Weather Operation
- Radar-3D Fusion
- Off-Road Chassis with Independent Leveling
- Real-Time Automatic Alerts
- One-key Lifting
- Rapid Standalone Deployment



MS-SAR5300 Integrated Trailer Radar

Solutions



Long-Term Fixed Monitoring

This solution provides continuous, round-the-clock monitoring of slopes and is primarily used for monitoring open-pit mine slopes and landslide-prone areas.



Emergency Rescue Monitoring

With exceptional portability, the MS-SAR5000 can be easily carried by a single person and quickly deployed. It's especially suitable for emergency rescue, playing an irreplaceable role in early warnings for secondary landslides.



Trailer-Mounted Mobile Monitoring

This solution integrates power supply, communication, and air conditioning systems, allowing fixed radar monitoring stations to be mobilized and adapted to the changing monitoring locations of large open-pit mines.



System-Level Comprehensive Monitoring

The software platform is compatible with various monitoring sensors, including GNSS, rain gauges, and inclinometers. It provides centralized displays and comprehensive analyses, offering more scientifically grounded monitoring, early warning and actionable recommendations.

SmartMonitor Cloud Platform

The SmartMonitor Cloud Platform is designed specifically for slope stability monitoring radar. Based on B/S architecture, the platform enables multiple users to operate online, enhancing collaborative monitoring efforts. Its user-friendly interface allows for seamless integration with other software platforms, facilitating data sharing and interoperability. Additionally, the platform provides robust software technical support services, ensuring that users can efficiently utilize its capabilities for effective slope stability monitoring and management. This comprehensive approach enhances situational awareness and supports timely decision-making in critical scenarios.



Main Functions

Real-time Monitoring

You can view the device status and warning status in real time.

Deformation Curve

It can draw the curve within the range according to the query conditions.

Monitoring Points Management

The addition, deletion and modification of monitoring points and monitoring surfaces can be displayed in a list.

Measuring Functions

It supports coordinate measurement, distance measurement, area measurement.

Overview of Early Warning

It provides an overview of warning statuses through chart displays, allows users to click on a list to the corresponding areas on the map for location verification.

Flexible UI

It allows users to control the display and hiding of the left and right measurement panels, as well as to open and close various layers as needed.

3D Display

It can perform deformation field imaging and display the monitoring results in 3D.

Information Retrieval

It supports coordinate extraction and matrix retrieval of image data information from radar images.

Area Shielding

It allows users to set shielding areas, excluding those regions from monitoring.

System Setting

The software can set warning rules and contacts.

Radar Images

It enables real-time map rendering and playback of radar images, allowing users to filter and query images by specific ranges.

Multiple Alarm Methods

It supports intelligent warnings, SMS/email/visual-audio alarms, scheduled monitoring reports, and enables unattended operation.