

PS-SAR2000

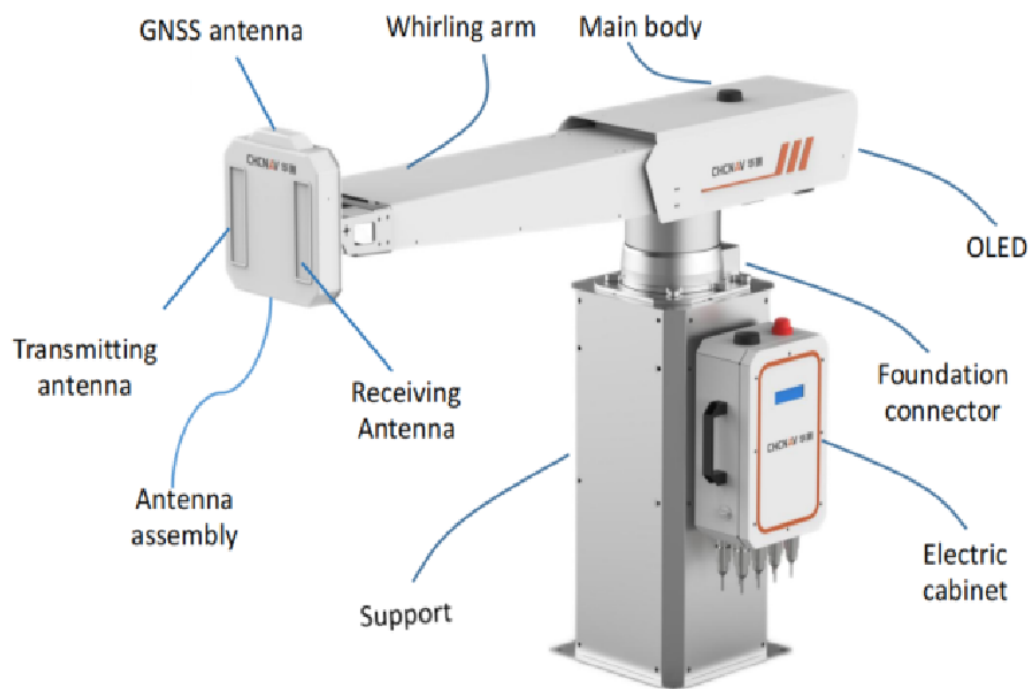
Ground-Based SAR For Monitoring



PS-SAR2000

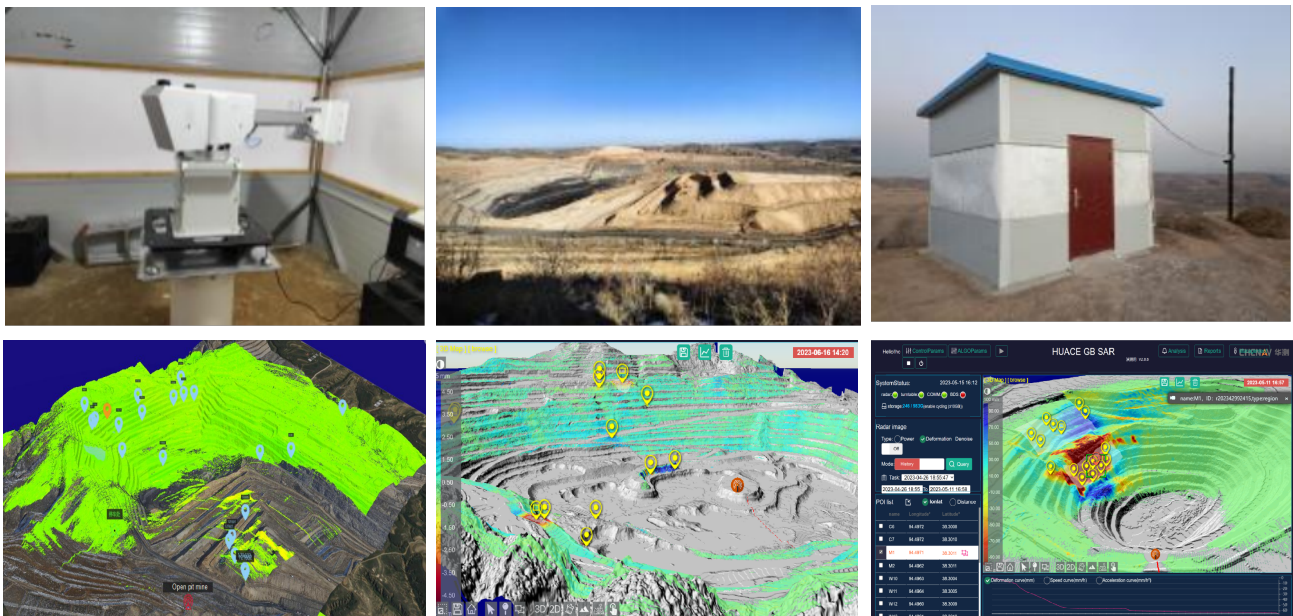
non-contact surface deformation monitoring

The PS-SAR 2000 is an omni-directional slope stability monitoring radar, which adopts active electromagnetic waves (Non-contact measurement, rain and fog penetration, independent of light, long distance) and phase interferometry technology (high sensitivity, high displacement measurement accuracy). It can achieve 360° comprehensive, contactless, all day, all-weather remote sensing measurement with high reliability and high accuracy. With fast setup, quick drawing, 3D fusion display and early warning, waterproof and shockproof design, its widely used for the micro deformation monitoring and early warning of open pit slopes and dams



- **360° view monitoring:** circular arc imaging and continuous wave radar system, comprehensive monitoring of 360° view.
- **High precision of 0.1mm:** recognize displacement change in the early stage of geological creep to provide early warning.
- **Unattended operation:** high integration, built-in data processing module and communication module, suitable for long-term and unattended monitoring.
- **High accuracy and data update rate:** update the deformation situation per minute (180° azimuth, including data processing time).
- **Compensation algorithm:** advanced adaptive atmospheric disturbance compensation algorithm, no need to set up reference points on site.
- **3D display:** support 3D terrain import to combine the deformation displacement and terrain slope, which could improve the reliability of disaster prediction.

Applications



Specifications

characteristics

Operation range	Up to 5000 m
Field of view	360° X 60°
Accuracy	0.1mm (MAX)
Resolution	@1km, 0.3 m by 5.2 m
Update rate	1 minute
Radio frequency band	24.05 - 24.25 GHz
Spurious emissions	< -30 dBm/MHz
Emission bandwidth	200 MHz
Modulation	antLinear Frequency Modulated Continuous Wave (LFMCW)enna
Max. Antenna input power	28 dBm
Maximum antenna gain (Tx)	10dB
Antenna pattern width	-6 db, azimuth 100
Communication	4G/LAN

Hardware

Size (L x W x H)	1130 mm x 420 mm x 730 mm
Weight	25 kg (without support)
Environment	Operating: -35°C to +55 °C Storage: -40°C to +60°C
Ingress protection	IP65

Electrical

Power consumption	50 W
Power supply	DC/AC; 220 V $\pm$ 10%

