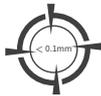
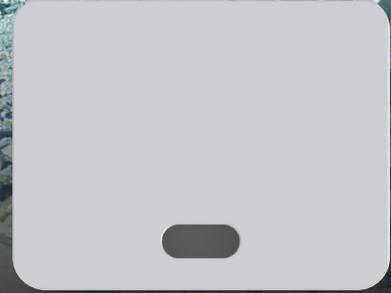
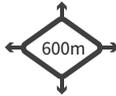


# Slope Stability Radar CR-S16



### High Precision

Monitoring accuracy < 0.1mm



### Wide Coverage

Monitoring range up to 600m



### Low Power Consumption

Average power consumption: 13.25W



### Easy Deployment

Weight of 2kg for single-person portability

## Product Introduction

The CR-S16 Slope Stability Radar utilizes advanced millimeter-wave radar technology to perform long-range, wide-area, and high-precision surface deformation monitoring of slopes, dams and similar structures. Designed for autonomous 24/7 operation in all weather conditions, it captures sub-millimeter displacement variations in real-time. By focusing on the critical pre-failure stage of slope instability, it delivers accurate and timely early warnings information for geological hazard, serving as a key sensing device for natural resource and transportation infrastructure safety monitoring.

## Function

### ■ Precise Deformation Capture

Sub-millimeter accuracy with both feature-point tracking and surface imaging monitoring.

### ■ Off-Grid Deployment

Supports solar power supply, reducing electrical infrastructure requirements and enabling long-term monitoring in remote environments without utility power.

### ■ Real-Time Monitoring & Alerts

24/7 continuous monitoring with built-in logic for timely alerts.

### ■ Wide-Area Coverage

Single-unit deployment covers large areas, reducing installation density and overall costs.

### ■ No Equipment on Slope

Rapid deployment with no embedded sensors required, eliminating the need for construction in hazardous areas.

### ■ Intelligent Monitoring Platform

Automatic multi-dimensional reporting with point-of-interest selection and real-scene visualization.

## Monitoring Platform

- **Flexible Monitoring Point Selection**

Monitoring points can be freely selected based on signal strength to ensure optimal measurement reliability.

- **Feature Tracking**

Real-time displacement and velocity analysis of selected monitoring points.

- **Surface Imaging**

Full-slope 2D point cloud scanning, monitoring and real-scene display.

- **Trend Analysis**

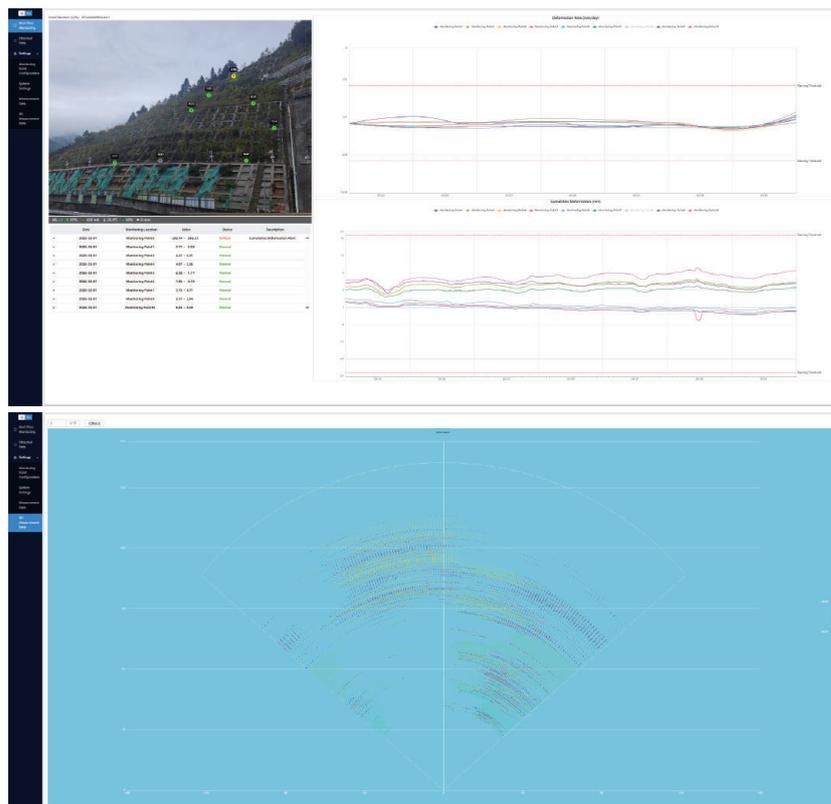
Automatically analyzes overall and localized deformation development trends.

- **Multi-Level Alert**

Built-in multi-level warning logic enables timely and reliable alert triggering.

- **Auto Reporting**

Automatic daily, weekly, monthly, and yearly monitoring reports.



## Specification

Parameter	CR-S16
Waveform	FMCW
Frequency Range(GHz)	15.7-16.7GHz
Deformation Accuracy	<0.1mm
Angular Resolution	1.9°
Range Resolution	0.15m
Detection Range	10-600m
Field of View	90° (Horizontal) × 30° (Vertical)
Data Update Rate	1D>50Hz/ 2D>20Hz
Average Power Consumption(W)	<15W
IP Rating	IP67
Operating Temperature	-20°C~+70°C
Weight (kg)	2kg
Dimensions (L×W×D)	256mm×198mm×60mm

### Chainzone Technology (Foshan) Co., Ltd.

Address: Tower 1, Chainzone Complex, No. 11 Juyuan South Road, Guicheng, Nanhai District, Foshan City, Guangdong Province  
 Website: www.chainzone.com      Tel: 0757-86393001      Email: sales@chainzone.com

