



CLOUD AND FOG SPACE DETECTION LASER RADAR

Introduction

The Cloud and Fog Space Detection Laser Radar developed by Zhice Yunlian operates based on the backscattering principle. It uses laser radar to perform horizontal and vertical scanning detection of the atmosphere within a designated area, acquiring the spatial distribution of aerosol extinction along detection paths and scanning planes. Intelligent algorithms automatically identify cloud and fog distribution across scanned areas.

Features

This laser radar adopts an integrated design with compact size, light weight and easy installation. It delivers stable performance, precise data and strong environmental adaptability.

Application Fields

Widely applied to rocket launch operations, civil airports, expressways, ship ports and other scenarios.



Description



★ **Optional equipment configurable on demand**





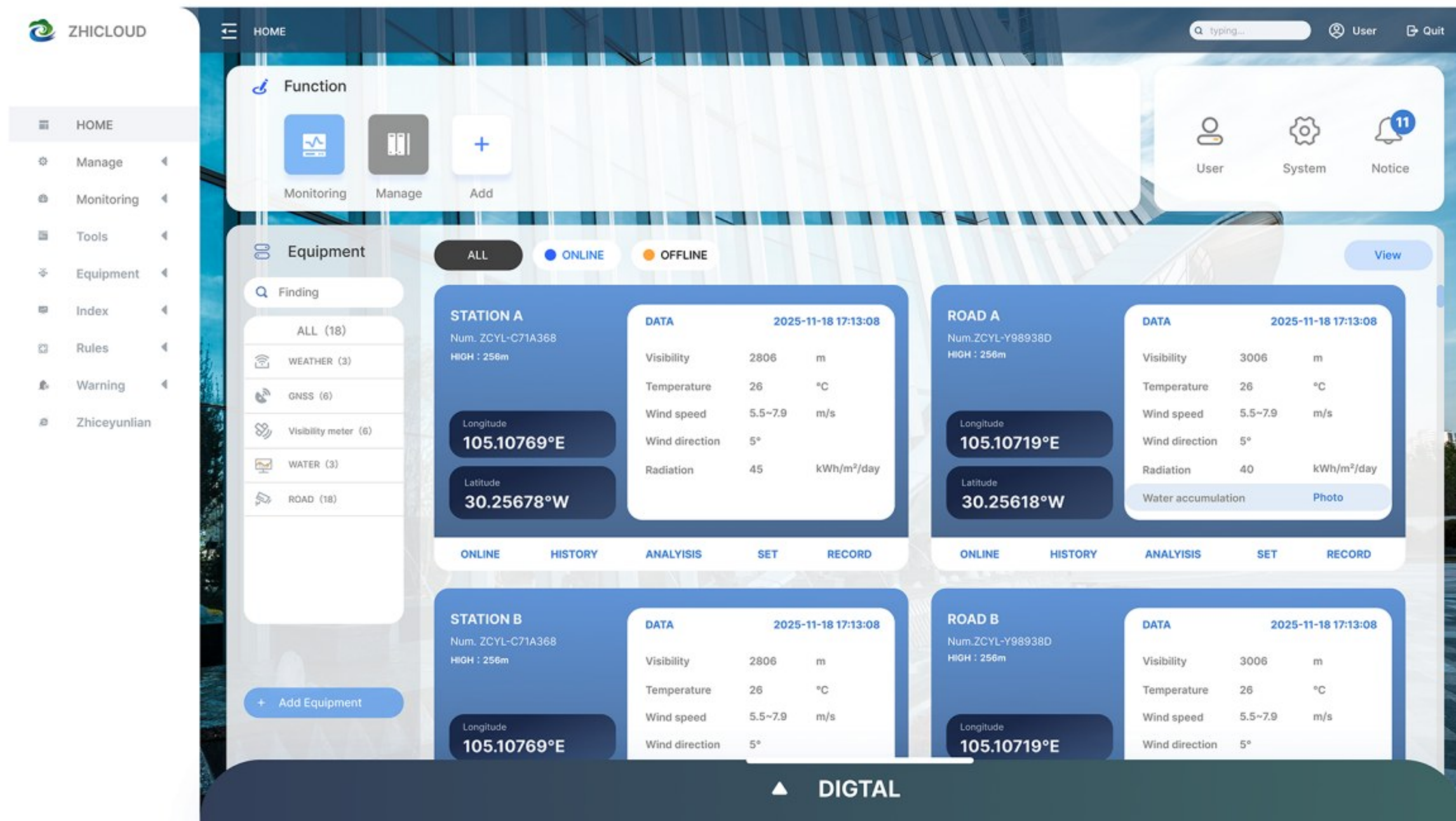
 Specifications

Category	Parameter Item	Specification Description
Environmental Adaptability	Power Consumption	40W (without heating); ≤ 150W (heating enabled)
	Interface Type	Optical fiber / RJ45 / 4G
	Operating Mode	24-hour continuous operation
	Operating Environment	Temp: -45~45℃ (standard configuration)Humidity: 0~100%RH
	Storage Environment	Temp: -50~60℃
	Overall Protection Grade	IP65 / IP67 optional, salt spray resistant & anti-corrosive
Electrical Performance	Power Supply	AC 198~242V
Physical Specifications	Dimension	(900±10) mm × (450±10) mm × (1100±10) mm
	Weight	≤ 65kg

 Parameters

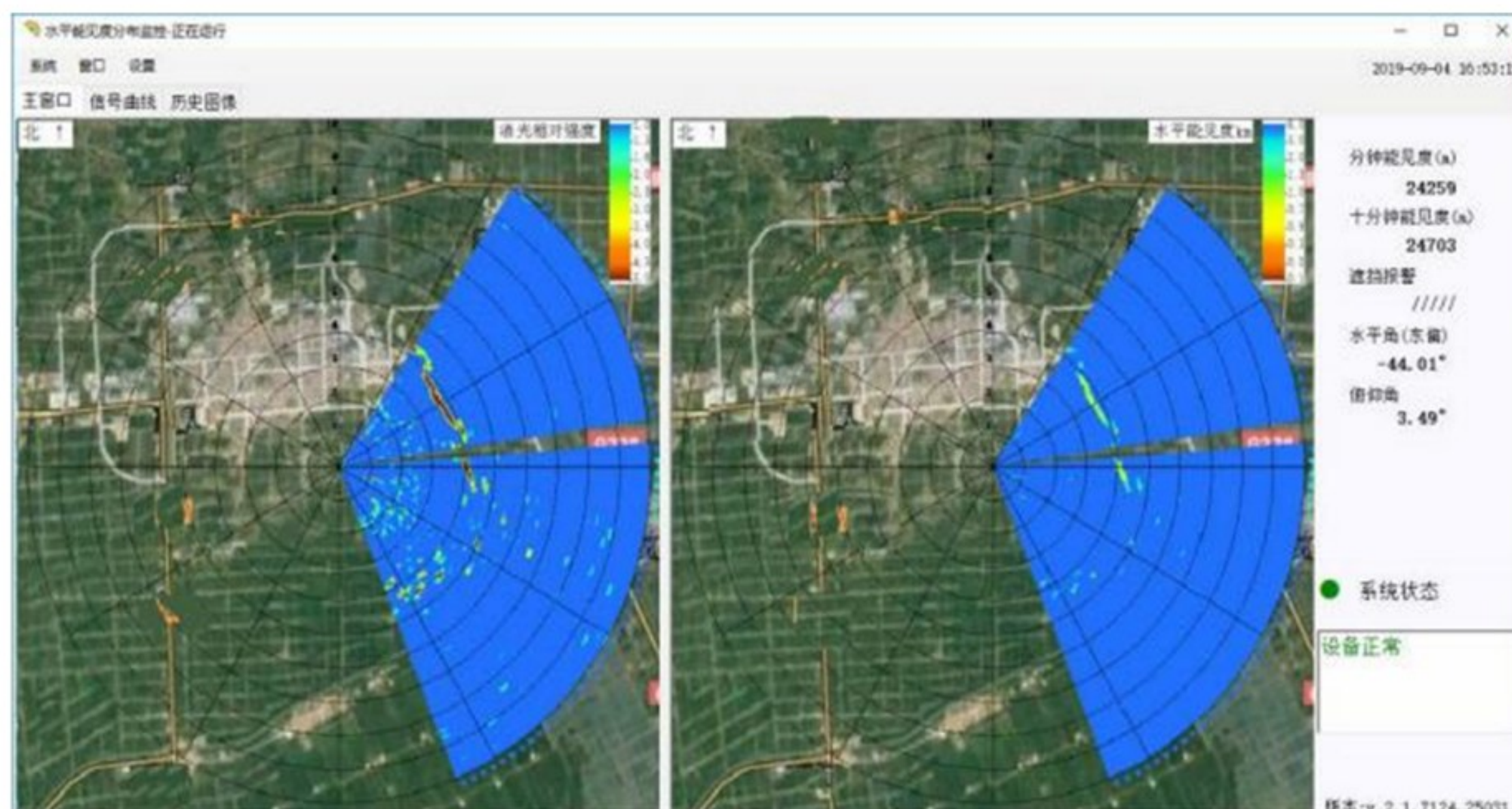
Parameter Item	Specification Description
Distance Range	50~4000m
Azimuth Scanning Range	0~360°
Elevation Scanning Range	0~90°
Distance Resolution	5m
Cloud Rotation Subdivision Accuracy	> 1°
Visibility Measuring Range	50~5000m
Visibility Resolution	Adjustable from 10~50m

Software Interface



ZhiCloud Cloud Platform

Centrally manages all types of monitoring equipment (meteorological stations, environmental monitoring stations, etc.). It displays real-time data (visibility, temperature & humidity, waterlogging status, etc.) and location information of all IoT devices on site. It also supports equipment status monitoring, historical data query, curve analysis and other functions, helping users remotely grasp environmental and equipment conditions of all monitoring points.



Real-time Monitoring Interface

The left and right dual graphs respectively display radar scanning results of "maximum detection height" and "horizontal visibility". Blue fan-shaped areas represent detection coverage; different colors matched with color bars intuitively distinguish cloud/fog intensity and height distribution.

The right panel synchronously shows real-time data such as visibility and azimuth angle, with equipment status marked at the bottom.