



DATA CENTER INFRASTRUCTURE MONITORING (DCIM)

The Foundation for Intelligent and Efficient Management

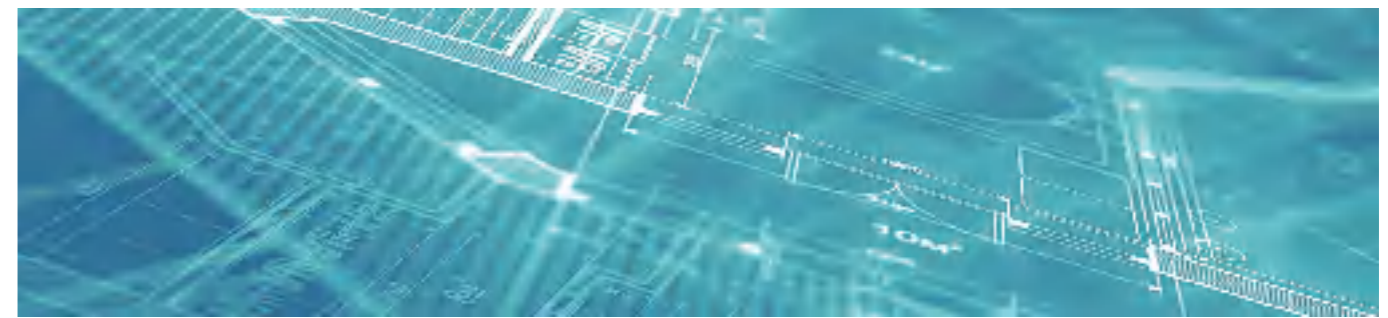


Anhui Coolnet Data Power Co.,LTD

Add:Building F1, Xingmengyuan Mansion, High-tech Zone, Hefei City, Anhui Province, China
Tel: +86-0551-65568275 Fax:+86-0551-65568275
Website: www.coolnetpower.com

The name of Coolnet and logo are the registered trademark only for Coolnet.
©2024by Coolnet company

DATA CENTER INFRASTRUCTURE MONITORING (DCIM)



Introduction

The intelligent monitoring and management platform aims to conduct telemetry, remote signaling and other collection for data center power equipment, computer room environment and security monitoring objects. It records and processes monitoring data in real time, monitors equipment operating status, detects equipment faults, and performs necessary remote control and regulation operations. It realizes centralized monitoring and management of computer room infrastructure, improves the reliability of the power supply system and the safety of communication equipment, and provides strong technical support for the automatic, intelligent and scientific management of the computer room.

Advantages

Ensure Computer Room Safety

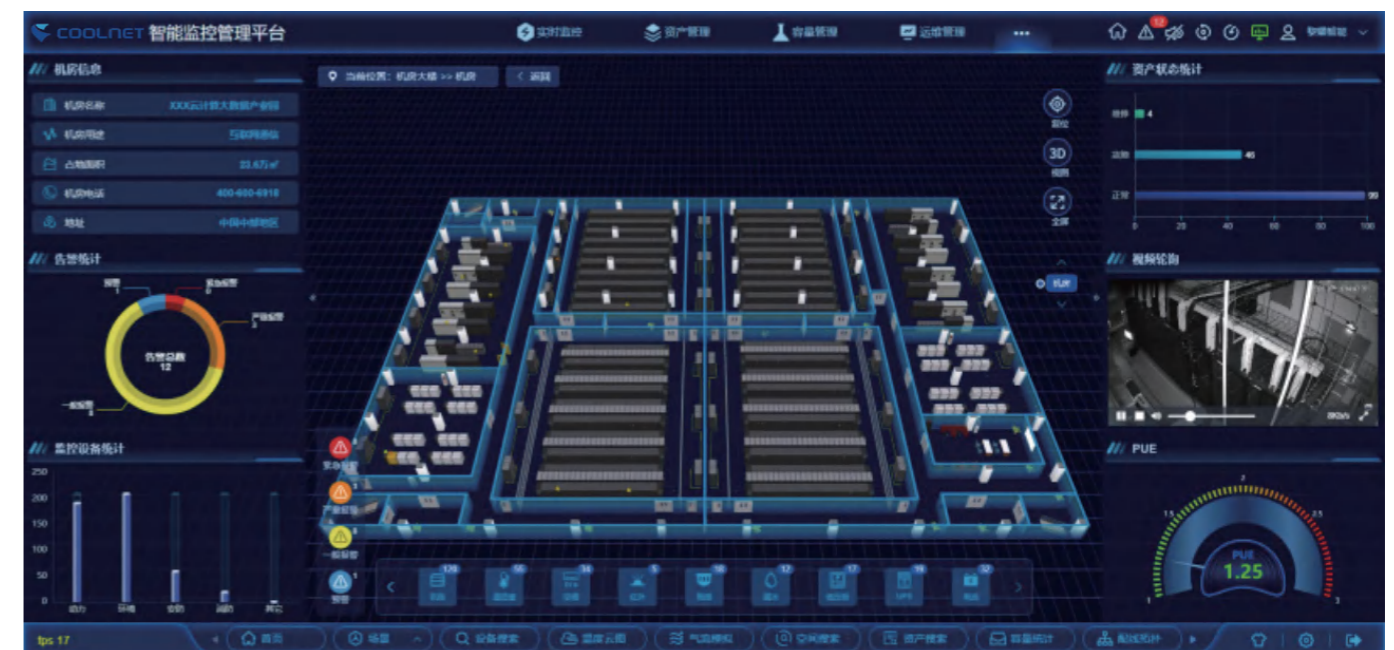
- Extensive equipment access and monitoring
- Multiple equipment alarm methods
- In-depth excavation of equipment data
- Comprehensive analysis of equipment status

Realize Unattended Operation

- Remote viewing of monitoring data
- Remote control management of monitoring equipment
- Support remote page visualization
- Remote push of system alarms

Energy & Emission Reduction

- Real-time monitoring of computer room PUE
- Monitoring of computer room load status
- Realization of automatic equipment control
- Energy efficiency management data analysis



MONITORING CONTENT

Power Monitoring ▼

- Power Distribution Cabinet Monitoring
- UPS Monitoring
- Storage Battery Monitoring
- PDU Monitoring

Environment Monitoring ▼

- Temperature & Humidity Monitoring
- Air Conditioning Monitoring
- Water Leakage Monitoring
- Gas Monitoring

Coolnet Intelligent Monitoring & Management Platform

Micro-Module Monitoring ▼

- Aisle Power & Environment Monitoring
- Skylight & Access Control
- Video Linkage Capture

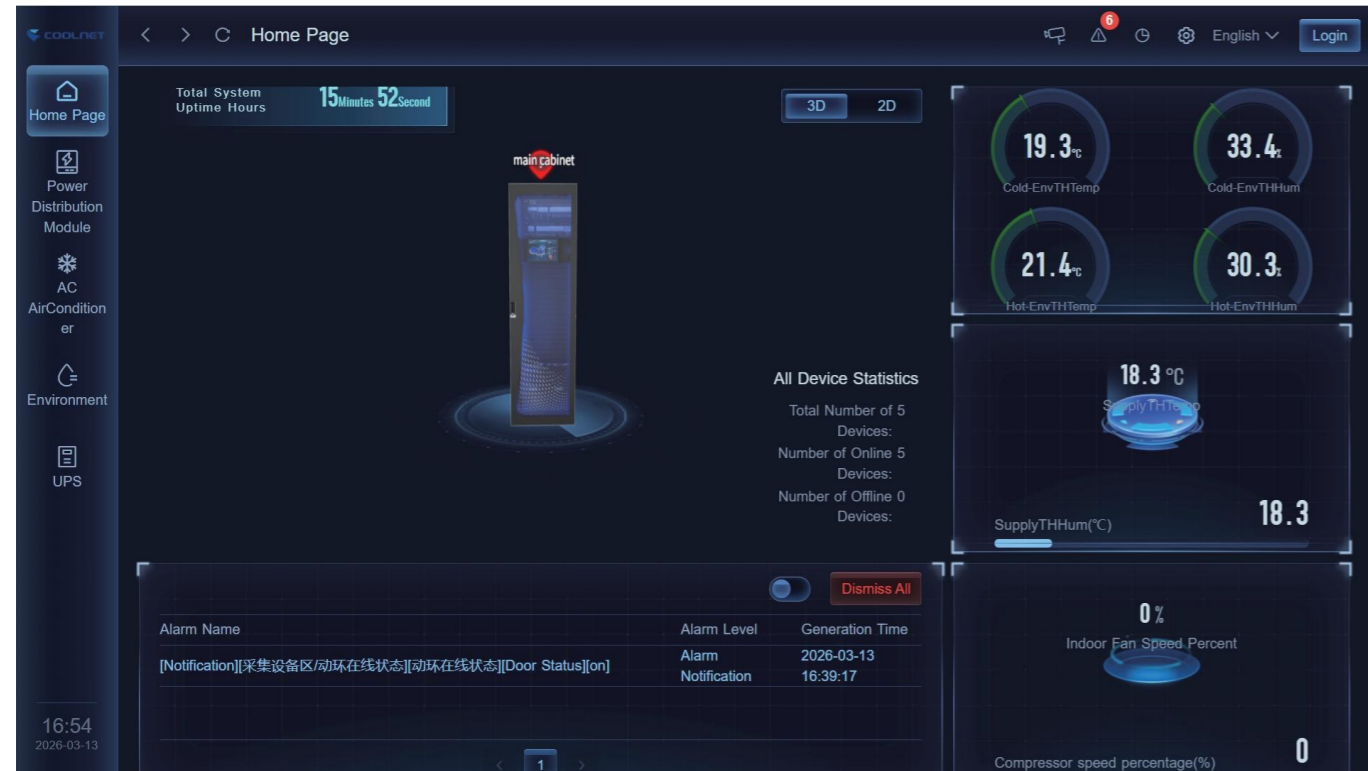
Integrated Cabinet Monitoring ▼

- Power & Environment Monitoring Inside the Cabinet
- Ambient Light Control
- Fire Alarm Linkage Control

Security Monitoring ▼

- Video Monitoring
- Access Control Monitoring
- Infrared Monitoring
- Fire Monitoring

TYPES OF MONITORING



Micro cabinet DC monitoring



Modular DC Monitoring

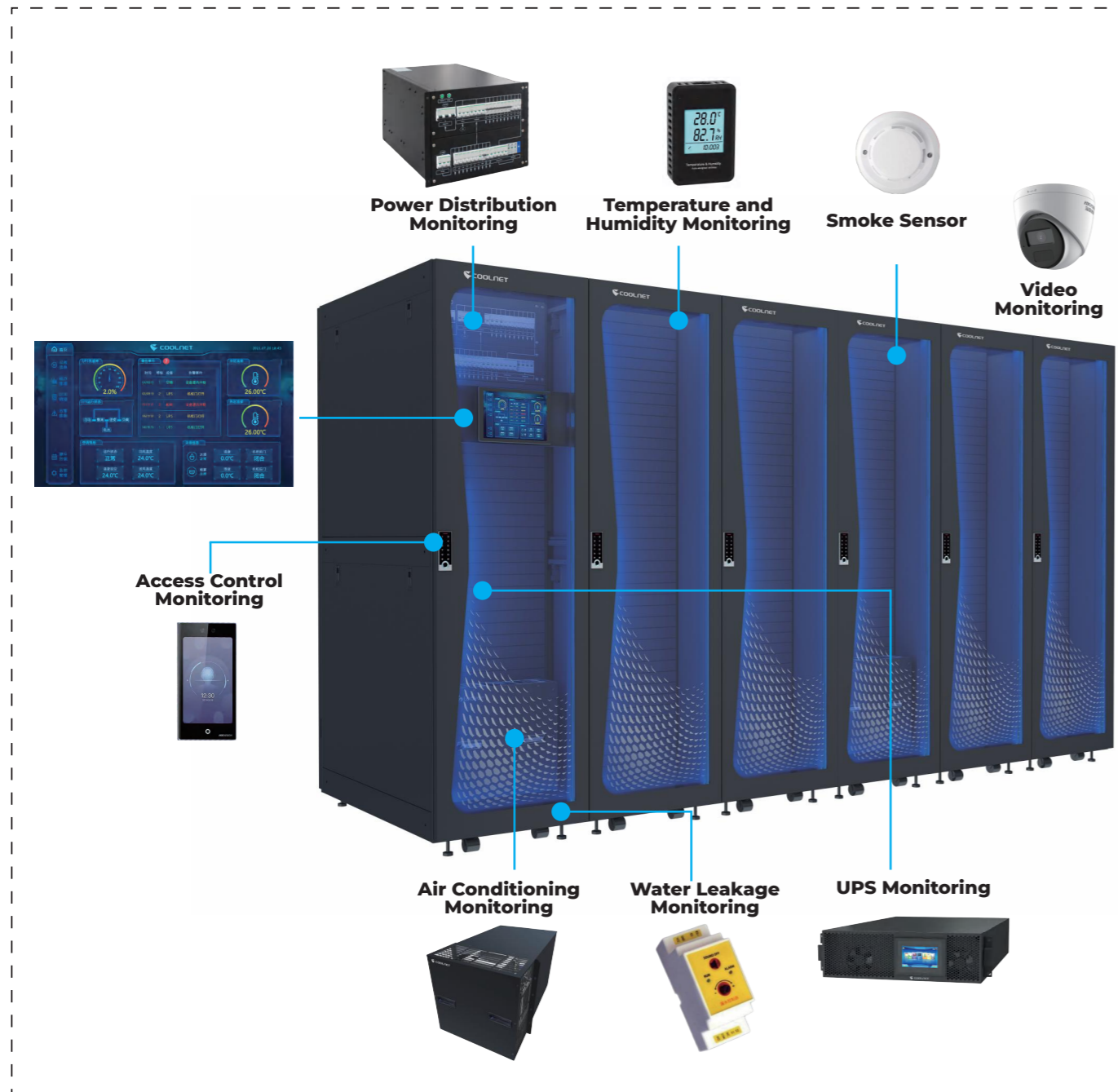


Data center integrated Power and environment Monitoring

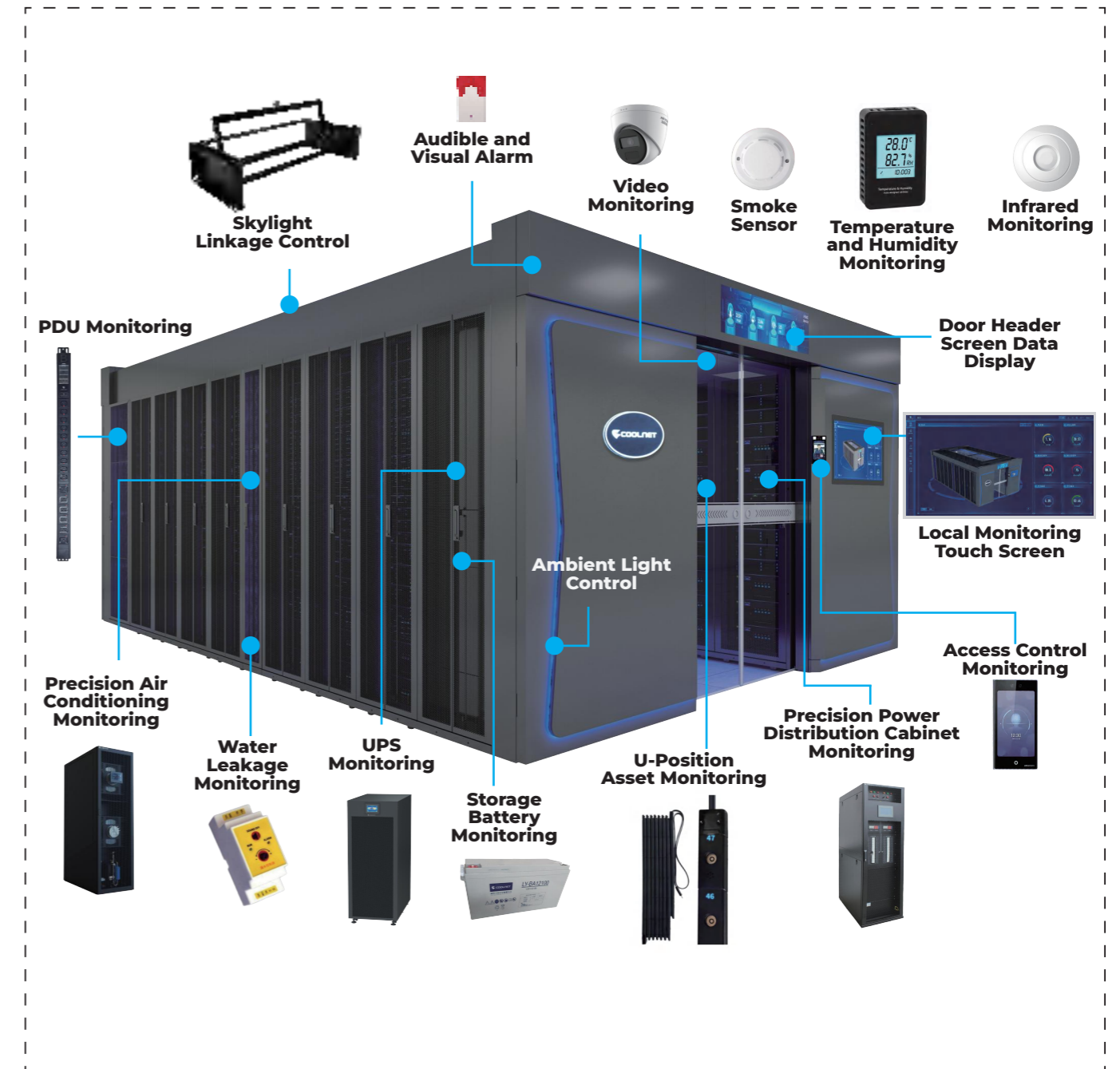


3D Visualization

MICRO CABINET DC MONITORING



MODULAR DC MONITORING



Comprehensive Monitoring

The functions fully meet the cabinet monitoring requirements and realize comprehensive monitoring of power and environment.

Intelligent Touch

User-friendly human-machine interface. Through visual operation, users enjoy a what-you-see-is-what-you-get experience.

Cabinet Micro-environment Early Warning

An early warning mechanism for cabinet-level environment and power consumption is established based on threshold alarms and change trends.

Multi-terminal Linkage

Realize a closed working loop of "multi-terminal linkage and joint response".

Real-time Control

Clear visibility of data and trends for power, environment, security, and IT facilities in the equipment room.

Precise Alarm

Fault preprocessing mechanism based on intelligent analysis, enabling fast fault location.

Full Lifecycle Management

AI-enabled full lifecycle management for cold aisle equipment.

Multi-terminal Linkage

Realize a closed working loop of "multi-terminal linkage and joint response".

DATA CENTER INTEGRATED POWER AND ENVIRONMENT MONITORING

Management Content

- Power Monitoring
- Environment Monitoring
- Video Surveillance
- Access Control Monitoring
- Remote Management
- Linkage Control
- Risk Prediction

Functional Modules

- Real-Time Monitoring
- Asset Management
- Capacity Management
- Operations and Maintenance
- Energy Management
- Data Report



3D VISUALIZATION

Introduction

3D Visualization System integrates 3D modeling, 3D scene simulation, equipment monitoring and alarm management, and multi-dimensional monitoring. It is an important platform for data center data presentation and a key means of data center management visualization.

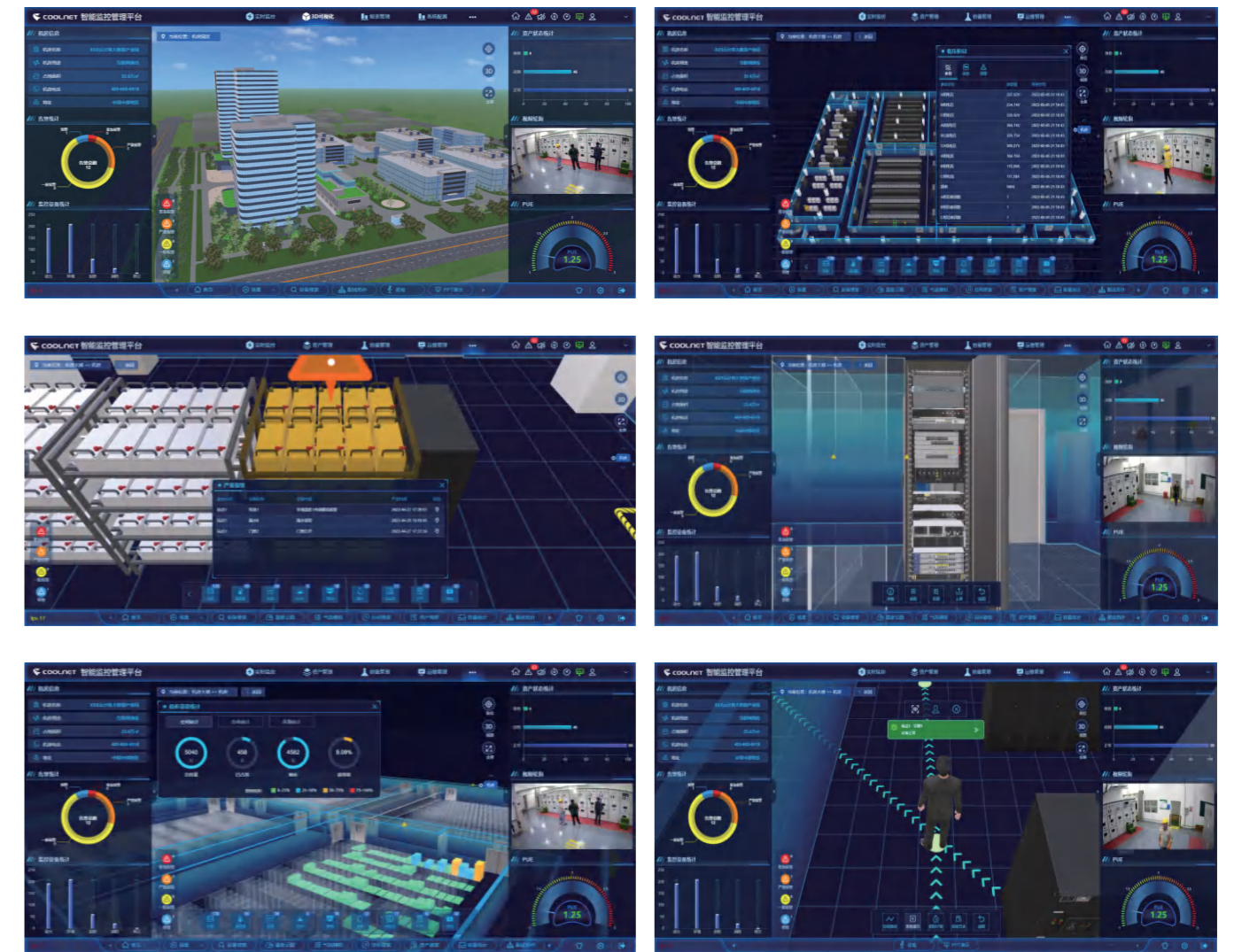
Basic Modeling & Scene Construction

Asset & Capacity Visualization

Alarm Information & Statistics Visualization

Visual O&M Inspection

Power & Environment Scene & Equipment Visualization



INTEGRATED DATA COLLECTOR

Introduction

This device integrates data collection, storage, linkage control and local display. It features a built-in functional interface and can be accessed via a local HDMI display or WEB interface. It supports customized linkage control, alarm management and historical data query. With industrial-grade hardware design, its service life is up to 10 years. It is suitable for monitoring and management in scenarios such as telecom DC warehouses and micro-modules.

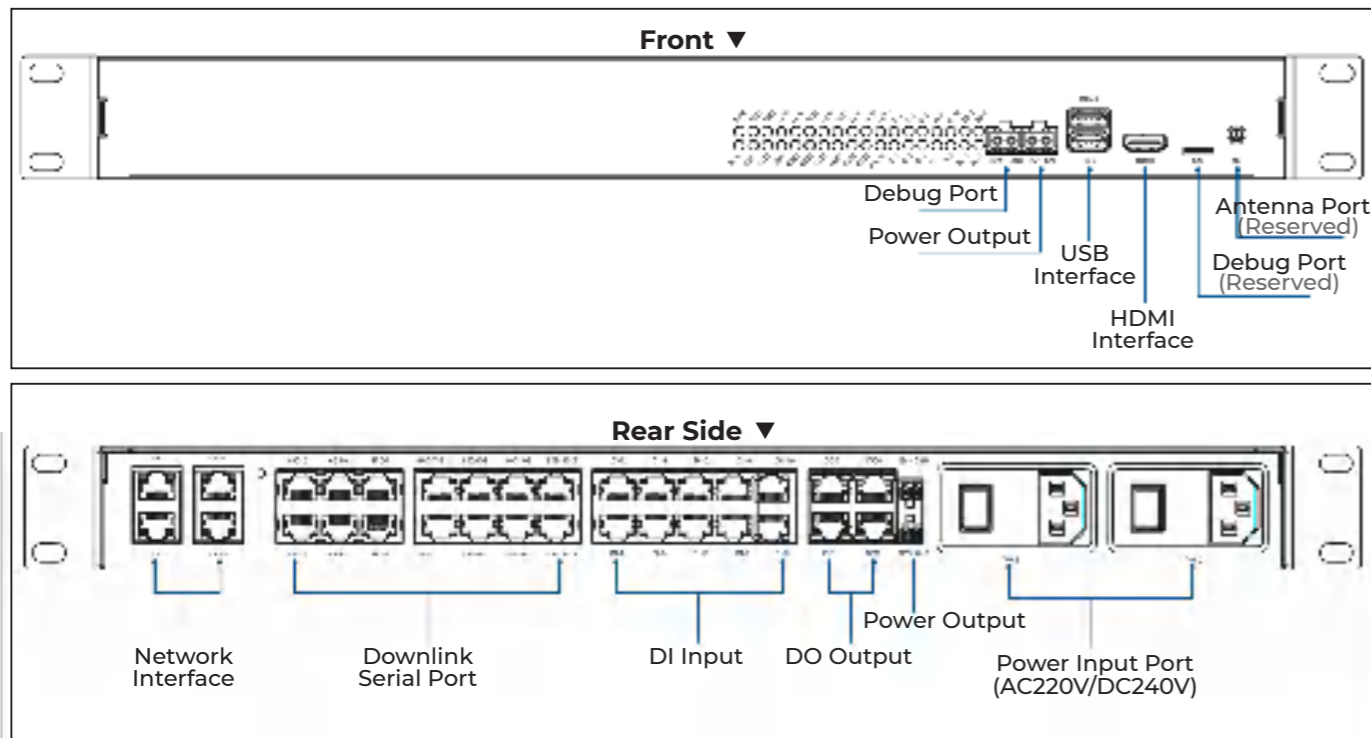


Features

Equipped with 10 serial ports, 10 DI channels, 4 DO channels, and 4 Ethernet ports (dual-network card design). Supports access to various intelligent devices via serial port or TCP. Able to connect no less than 10,000 measuring points.

Advantages

1. ARM architecture, industrial-grade hardware design, service life up to 10 years
2. Integrates data collection, storage, linkage control and local display
3. Large storage capacity, built-in 8G eMMC, supports TF card expansion (up to 128G)
4. Supports northbound interfaces such as telecom Interface B, SNMP, HTTP, Modbus
5. Serial ports 7-9 support RS485 ring connection, eliminating single point of failure affecting the entire bus communication
6. Independent dual network card design, supports two network connections for improved network stability
7. RJ45 interface with signal and power supply, simplifies cabling
8. Supports customized linkage control, alarm management and historical data query
9. Built-in buzzer
10. Port protection: each port supports over-voltage, over-current, reverse connection and wrong connection protection



TECHNICAL PARAMETERS

Basic Information	
Processor	32-bit ARM Cortex-A9
Operating System	Linux
RAM	1G
Storage	8 GB eMMC (core board), supports TF card expansion (built-in TF card)
Network Interface	
Quantity	Quantity: 4 Ethernet ports (dual network adapters), 10/100 M adaptive LAN1-LAN3: one network adapter with switch function, provides network access for other devices
Interface type	RJ45 (T568B)
Transmission distance	100 m
4G	1 port
Protection	PPTC+TVS
Surge protection	600W
Downlink Serial Port	
Channels	10 Serial ports 7-9 support RS485 ring connection Serial port 10: RS232/RS485 multiplexing
Type	RS485/232
Interface	RJ45 (T568B), with DC12V power output, max. 500 mA
Transmission distance	100 m
Protection	PPTC+TVS
Over-voltage & over-current protection	Power: 30 V / 500 mA Signal: 30 V / 200 mA
Surge protection	600W
DI Input	
Channels	10
Interface	RJ45 (T568B), with DC12V power output, max. 100 mA
Transmission distance	100 m
Protection	PPTC+TVS
Over-voltage & over-current protection	Power: 30 V / 100 mA Signal: 30 V / 50 mA
Surge protection	600W
DO Output	
Channels	4
Interface	RJ45 (T568B)
Transmission distance	100 m
Output type	Type C relay
Contact rating	30V/3A
Protection	PPTC+TVS
Over-voltage & over-current protection	30V/1350mA
Surge protection	600W
Power Input Port	
Channels	2 (dual AC/DC input)
Input voltage	AC220V/DC240V
Voltage range	AC100-240V, DC150-330V
Power consumption	≤10 W (excluding external power supply)
Power Output Port	
Channels	3 groups
Interface	Phoenix terminal
Output voltage	DC12V/3A
Other Interfaces	
Debug port	1 channel, Phoenix terminal, for debugging and log printing
USB interface	2 × standard USB2.0, for external U disk, USB network adapter, etc.
HDMI interface	1 × HDMI, for external HDMI display
Operating Environment	
Operating temperature	-20°C ~ 70°C
Operating humidity	5% ~ 95% RH (non-condensing)
Mechanical Characteristics	
Installation	Standard 1U rack-mounted
Dimensions	483 mm × 208 mm × 44.4 mm (±2 mm, with mounting ears, excluding antenna)