

DH-PFR4K-D450

450 Meter Area Detection Sensor



- 24/7 all-weather
- Wide-range detection
- High accuracy
- Target filtering
- Sensor-PTZ linkage
- Front-end PTZ control
- Centralized management
- Smart tracking
- IP67/IK10
- CE RED 24H



System Overview

This security sensor adopts 24 GHz sensor chip for 24/7 all-weather high-accuracy detection in the range of 450 m/90°. It supports sensor-PTZ smart tracking, compatible with common Dahua speed domes. With sensor detection and intelligent algorithms, ultra-low false alarms and zero missed alarms are achieved around the clock. Multiple PTZ cameras can be linked to one sensor, and wide range global arming and detail tracking are realized simultaneously.

The product is widely applied to various perimeter and intrusion arming sites such as farms, prisons, airports, and oilfields to provide users with safer and more valuable security protection solutions.

Functions

K-band Detection

Adopt 24 GHz sensor chip for detection with long distance, high accuracy, wide range, and 24/7 all weathers to realize ultra-low false alarms and zero missed alarms in armed regions.

Sensor+PTZ Smart Tracking

Support linkage between sensor and common Dahua speed domes. Multiple speed domes can be linked with one sensor (link up to 3 speed domes on web manager, and up to 8 on platform). Both sensor and cameras can be installed separately.

Multi Level Perimeter Protection

Support region setting with different alarm priority, external alarm linkage, human and vehicle filtering, and vehicle detection with low and medium speed.

Front-end PTZ Control

Low delay with sensor directly controlling camera tracking. Display sensor-PTZ linkage on web manager, and one sensor can link with multiple cameras. Video stream acquisition, and map and trajectory display on NVR or platform is also supported.

Intelligent Algorithm of Sensor

Support human and vehicle recognition.

Centralized Platform Management

Support configurations and management of multiple sensors on the platform. Display sensor-PTZ smart tracking on the map.

Protection and Certifications

Meet IP67 and IK10 protection grade, and CE RED standards.

Technical Specification

Performance

Max. Number of Targets	32
Detection Distance	Human: 450.0 m (1476.38 ft) Vehicle: 600.0 m (1968.50 ft)
Detection Angle	Horizontal: 90° Vertical: 13°
Max. Detection Speed	80 km/h, continuous trajectory
Min. Detection Speed	1.8 km/h, continuous trajectory
Distance Accuracy	± 1.5 m (± 4.92 ft)
Angle Accuracy	± 1°
Max. Number of Areas	10
Modulation Type	FMCW
Scan Frequency	8 Hz
Operating Frequency	24 GHz
Detection Target Type	Human and vehicle

Function

Sensor+PTZ Smart Tracking	Supported on web manager
Track Mode	Tour, distance priority, and time priority
Region Setting	Alarm area, pre-warning area, and shield area
Target Filtering	Human and vehicle filtering
Record Mode	Manual record, scheduled record, and alarm record Record priority: Manual>Alarm>Scheduled
Restore to Factory Default	Restore to default settings with one click
Security	Authorized username and password, MAC address binding, HTTPS encryption, IEEE 802.1x, and network access control
Positioning	GPS, Glonass
Map Encoding	Yes

Network

Ethernet	RJ-45 (10Base-T/100Base-TX)
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, SMTP, NTP, DHCP, DNS, PPPoE, DDNS, FTP, IP Filter, QoS, Bonjour, and 802.1x
Interoperability	ONVIF Profile S&G, CGI
User Management	19
Storage	NAS; FTP; micro SD card (256 G)
Browser	IE: Versions later than IE7 Google: Versions earlier than Chrome45 Firefox: Versions earlier than Firefox46
Management Software	DSS

Port

Alarm Input	1 channel (support 5V DC potential and 5mA current)
Alarm Output	5 channels (wet contact; support max 12V DC potential and max 300mA current)

Alarm Linkage	Snapshots, sensor-PTZ linkage, SD card record, alarm triggering output, electronic map displaying, and email sending
Alarm Event	Sensor alarm, no SD card, insufficient SD card storage, SD card error, network disconnection, IP conflict, full disk, and illegal access
SD Card	Yes
Indicator Light	Network connection: Yellow Running status: Red/Green Power: Green

Power

Power Supply	DC 12V (±30%), AC 24V (±30%), PoE (802.3at)
Power Consumption	Basic: 20W Max.: 24W

Environment

Operating Temperature	-40°C to +65°C (-40°F to +149°F)
Operating Humidity	≤95% (RH)
Storage Temperature	-40°C to +80°C (-40°F to +176°F)
Storage Humidity	≤95% (RH)
Protection Grade	IP67/IK10
ESD	Contact discharge: 6k Air discharge: 8k
Surge Protection Grade	Common mode: ± 6kV Differential Mode: ± 2kV

General

Product Color	White
Casing	ADC12+PC
Product Dimensions	244.9 mm × 184.9 mm × 61.2 mm (9.64" × 7.28" × 2.41")
Packaging Dimensions	328.0 mm × 146.0 mm × 278.0 mm (12.90" × 5.75" × 10.95")
Net Weight	2.0 kg (4.41 lb)
Gross Weight	3.2 kg (7.06 lb)
Installation Method	Wall mount, ceiling mount, pole mount
Installation Height	3.0 m to 5.0 m (3.0 m recommended) (9.84 ft to 16.40 ft) (9.84 ft recommended)
Installation Position	Separate or integrated installation

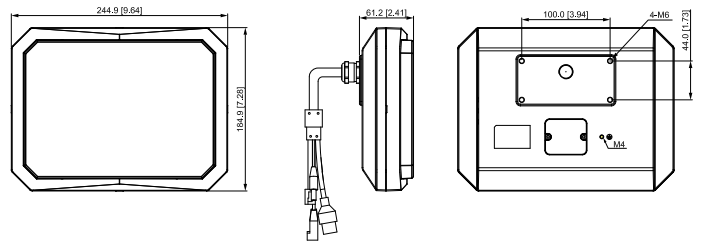
Certification

Certifications	CE: EN 50385; EN 55032; EN 55024; EN 55035; EN 50130-4; ETSI EN 301 489-1; ETSI EN 301 489-3; EN 60950-1 CE RED: EN 300440
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Ordering Information

Type	Model	Description
Sensor	DH-PFR4K-D450	450 m security Sensor
Bracket	PFB414W	Sensor-PTZ Linkage bracket, supports integrated installation of multi-type sensors and PTZ cameras
	PFB510W	Sensor bracket, supports wall mount and ceiling mount
	PFA150	Pole mount bracket, supports vertical or horizontal pole mount

Dimensions (mm[inch])



Accessories

Optional:



PFB414W
Sensor-PTZ Linkage
bracket



PFB510W
Sensor bracket



PFA150
Pole mount
bracket

Integrated Installation	Separate Installation	
<p>Wall mount</p>	<p>Ceiling mount</p>	<p>Wall mount</p>
<p>Vertical Pole Mount</p>	<p>Vertical Pole Mount</p>	<p>Horizontal Pole Mount</p>