DH-PFR4Q-E120

120 m Security Radar for Area Protection

· 24/7 all-weather
· Wide-range detection
· High accuracy
· Target filtering
· Radar-PTZ linkage
· Front-end PTZ control
· Centralized management
· Smart tracking
· IP67/IK09
· CE RED

7 x 24 H	Color Optical Defog	High Accuracy	Target Filtering	Radar-PTZ Linkage	Front-end PTZ Control	IP67

Centralized Management

System Overview

Adopt 61 GHZ radar chip for 24/7 all-weather high-accuracy detection in the range of 120 m/120°. Support radar-PTZ smart tracking, compatible with common Dahua speed domes. With radar detection and intelligent algorithms, ultra-low false positives and zero false negatives are achieved around the clock. Multiple PTZ cameras can be linked to one radar, and wide range global arming and detail tracking is realized simultaneously. The product is widely applied to various perimeter and intrusion arming sites such as villas, warehouses, prisons, airports, and oilfields to provide users with safer and more valuable security protection solutions.

Functions

Q-band Detection

Adopt 61 GHz radar chip for detection with long distance, high accuracy, wide range, and 24/7 all weathers to realize ultra-low false positives and zero false negatives in armed regions.

Radar+PTZ Smart Tracking

Support linkage between radar and common Dahua speed domes. Multiple speed domes can be linked with one radar (link up to 3 speed domes on web manager, and up to 8 on platform). Both radar 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 radar directly controlling camera tracking. Display radar-PTZ linkage on web manager, and one radar can link with multiple cameras. Video stream acquisition, and map and trajectory display on NVR or platform is also supported.

Intelligent Algorithm of Radar

Intelligent algorithm is used to identify complex scenes and achieve high accuracy in different scenarios. Alarm is triggered once radar detection range is covered or radar is rotated substantially. Support human and vehicle recognition.

Centralized Platform Management

Support radar configurations and management of multiple radars on platforms. Display radar-PTZ smart tracking on the map.

Technical Specification

Performance

Max. Target Number	64
Detection Distance	Human: 120.0 m (393.70 ft) Vehicle: 150.0 m (492.13 ft)
Detection Angle	Horizontal: 120° Vertical: 13°
Max. Detection Speed	40km/h, continuous trajectory
Min. Detection Speed	0.4km/h, continuous trajectory
Distance Accuracy	± 1.5 m (± 4.92 ft)
Angle Accuracy	± 1°
Max. Area Number	25
Modulation Type	FMCW
Scan Frequency	10 Hz
Operating Frequency	61 GHz
Transmission Power	<20 dBm (100 mW)
Detection Target Type	Human and vehicle

Function

Radar+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
Environment Mode	General, shrub, and capacious
Target Filtering	Human and vehicle filtering
Channel Selections	Yes
Record Mode	Manual record, scheduled record, and alarm record Record priority: Manual>Alarm>Scheduled
Restore Default Settings	Restore default settings with one click
Security Mode	Authorized user name and password, MAC address binding, HTTPS encryption, IEEE 802.1x, and network access control
Power Output	Support 12 VDC power output with maximum 165 mA current and 12 V voltage
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/Host	19
Storage	NAS; local PC; micro SD card (256 G)
Browser	IE: Versions later than IE7 Google: Versions earlier than Chrome45 Firefox: Versions earlier than Firefox46

Port

Alarm Input	1 channel (support 5VDC potential and 5mA current)
Alarm Output	4 channels (wet contact; support max 12V DC potential and max 300mA current) 1 channel (dry contact; support max 30V DC potential and max 2A current, and max 250V AC potential and max 2A current)
Alarm Linkage	Snapshots, radar-PTZ linkage, SD card record, alarm triggering output, and email sending
Alarm Event	Radar alarm, scene changing, no SD card, SD card capacity warning, 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	12 VDC (±30%), AC 24V (±30%), PoE (802.3at)
Power Consumption	Basic: 12W Max.: 14W

Environment

Operating Temperature	−40°C to +70°C (−40°F to +158°F)
Operating Humidity	≤95% (RH)
Storage Temperature	−40°C to +80°C (−40°F to +176°F)
Storage Humidity	≤95% (RH)
Ingress Protection	IP67/IK09
ESD	Contact discharge: 6k Air discharge: 8k
Surge Protection Grade	Common mode: ± 6kV Differential Mode: ± 2kV

Structure

Color	White
Casing	ADC12+PC
Product Dimensions	204.9 mm × 157.9 mm × 67.1 mm (8.07" × 6.22" × 2.64")
Packaging Dimensions	256.0 mm × 208.0 mm × 171.0 mm (10.08"× 8.19" × 6.73")
Net Weight	1.7 kg (2.20 lb)
Gross Weight	2.2 kg (4.85 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

Certifications

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: EN305550

Ordering Information

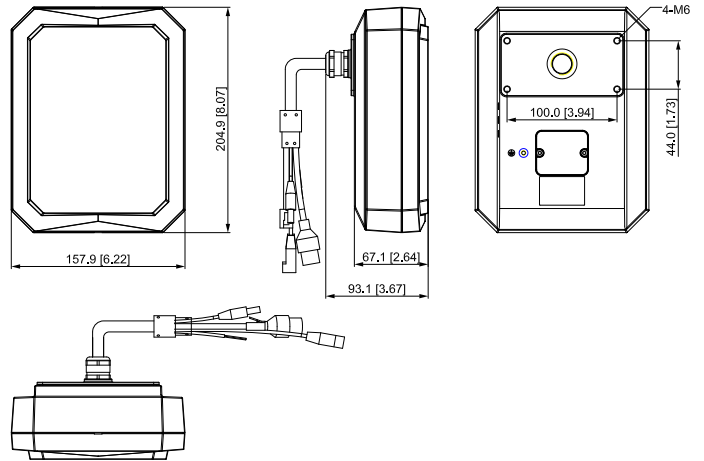| Type	Model	Description
Radar	DH-PFR4Q-E120	120 m security radar
Bracket	PFB414W	Radar-PTZ Linkage bracket, supports integrated installation of multi-type radars and PTZ cameras
	PFB510W	Radar bracket, supports wall-mounting and ceiling-mounting
	PFA150	Pole mount bracket, supports vertical or horizontal pole mounting

Accessories

Optional:

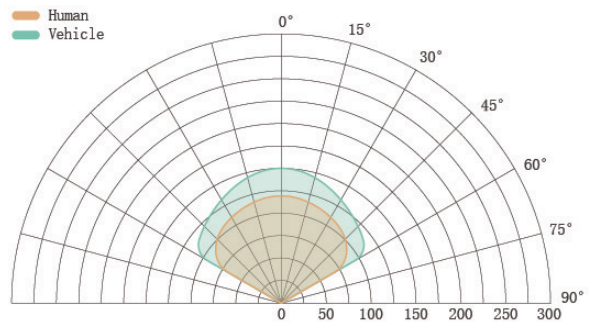
PFB414W
Radar-PTZ Linkage bracket

PFB510W
Radar bracket

PFA150
Pole mount bracket

Integrated Installtion	Separate Installtion	
Wall mount	Ceiling mount	Wall mount
Vertical Pole Mount	Vertical Pole Mount	Horizontal Pole Mount

Dimensions (mm/inch)

Range coverage diagram

* This diagram is for reference only, the detection distance depends on the actual environment.