

DH-PFR5QI-E60

60 m Visual Radar



- · Radar and video integration.
- 60 GHz high frequency radar is not affected by severe weather.
- Extremely low rate of false alarms and no missing alarms.
- 4MP 1/1.8" CMOS image sensor, low illuminance, high image definition.
- Easy to calibrate: One-click auto calibration and manul calibration.
- Supports drawing protection zone on live view which can be transformed to radar protection zone automatically; applicable to various scenes.
- · Target filtering of human and vehicles.
- Speed filtering of target with a speed of 0–40 km/h, achieving accurate and efficient detection.
- Outputs max. 4MP (2560 × 1440) @30 fps.
- · H.265 codec, high compression rate, ultra-low bit rate.
- Built-in IR illuminator, and the max. illumination distance is 35 m.

System Overview

Equipped with a 60 GHz radar chip and a 4MP wide-angle lens, the visual radar realizes all-weather and high-precision detection, covering 60 m/120°. The visual radar supports speed filtering, automatic calibration, changing live view protection zone into radar protection zone. With intelligent algorithm, the visual radar achieves extremely low rate of false alarms and no missing alarms, which greatly improves the video quality in severe environment. The visual radar integrates radar detection and video playback.

Functions

60 GHz Radar & 4MP Video Integration

The self-developed Dahua 60 GHz radar algorithm combines high-quality video display, improving perimeter/area intrusion and realizing wide-range, 7/24 all-weather and high-precision detection.

One-click Calibration

Dahua intelligent algorithm realizes one-click auto/manual calibration which is easy to operate and applicable to various scenes.

Multi-level Perimeter Protection

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



Intelligent Algorithm of Radar

Intelligent algorithm is used to identify complex scenes and achieve high accuracy in different scenarios. Supports human and vehicle recognition and speed filtering of moving targets.

Smart H.265+ & Smart H.264+

With advanced scene-adaptive rate control algorithm, Dahua smart encoding technology realizes higher encoding efficiency than H.265 and H.264, provides high-quality video, and reduces the cost of storage and transmission.

Protection and Certifications

Meet IP66 and CE RED standards.

Scene

Applicable to various perimeter/area intrusion scenes, such as villa, warehouse, prison and parking lot. It provides a safer and more comprehensive solution for protection.

Technical Specification			Sub stream:
Radar			50 Hz: 25 fps (704 × 576); 25 fps (352 × 288) 60 Hz: 30 fps (704 × 480); 30 fps (352 × 240) Third stream:
Max. Target Number	64		50 Hz: 25 fps (1920 × 1080); 25 fps (1280 × 960); 25 fps (1280 × 720)
Distance	60 m (196.85 ft)		60 Hz: 30 fps (1920 × 1080); 30 fps (1280 × 960); 30 fps (1280 × 720)
Angle	Horizontal: 120° Pitch angle: 26°	Video Bit Rate	H.264: 3 Kbps-8192 Kbps; H.265: 3 Kbps-8192 Kbps
Distance Accuracy	±0.5 m (1.64 ft)	Day/Night	Color/B/W
Angle Accuracy	±1°	BLC	Yes
Max. Detection Speed	43.2 km/h, continuous trace	HLC	Yes
Min. Detection Speed	0.72 km/h, continuous trace	WDR	102 dB
Modulation Method	FMCW	White Balance	Auto/manual/natural/street lamp/outdoor
Scan Frequency	20 Hz	Gain Control	Auto/manual
Working Frequency	60 GHz–61 GHz	Noise Reduction	2D NR/3D NR
Supported Target Type	Human; vehicle	Default Bit Rate with Default Resolution	6144 Kbps (2560 × 1440)
Transmission Power	< 20 dBm (100mW)	Defog	Yes
Camera		Image Stabilization	Yes
Image Sensor	1/1.8" CMOS	LDC	Yes
Pixel	4MP	Alarm	
Max. Resolution	2560 (H) × 1440 (V)	Alarm Event	Network disconnection; IP conflict; illegal access; intrusion; tripwire
Electronic Shutter Speed	1/3 s-1/100000 s	Alarm Input	3
Min. Illumination	0.0036 Lux @F1.6 (Color); 0.0036 Lux @F1.6 (B/W); 0 Lux (IR on)	Alarm Output	2, support alarm linkage
S/N Ratio	> 56 dB	Alarm Linkage	Snapshot/SD card recording/email
Illumination Distance	35 m (114.83 ft) (0°, visible human body shape)	Network	
Illuminator Number	4		
Lens		Network Port	1 (RJ-45; support 10 M/100 M network data)
Lens Type Lens Mount	Fixed-focal M16	Network 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;
	2.8 mm (equivalent focal distance of 1/2.7")	latera a socialità	802.1x
Focal Length May Aporture	F1.6	Interoperability	ONVIF (Profile S); CGI; Imou
Max. Aperture Field of View	Horizontal: 104°; Vertical: 55°; Diagonal: 121°	Storage	NAS; FTP; Micro SD card (128 G) IE 7 and later
Iris Control	Fixed	Browser	Chrome 45 and earlier Firefox 46 and earlier
Close Focus Distance	0.2 m	User/Host	20 (total bandwidth: 64 M)
Video		SDK and API	Yes
Video Compression	H.265; H.264; H.264H; H.264B	Management Software	DSS
Smart Codec	H.264/H.265	Function	
	Main stream:	Image Setting	Brightness; Contrast; Sharpness; Saturation; Gamma
	50 Hz: 25 fps (2560 × 1440); 25 fps (2048 × 1536); 25 fps (1920 × 1080); 25 fps (1280 × 960); 25 fps (1280 × 720) 60 Hz: 30 fps (2560 × 1440); 30 fps (2048 × 1536); 30 fps (1920 × 1080); 30 fps (1280 × 960); 30 fps	OSD Overlay	Time; channel; location; custom
Video Frame Rate		Record Mode	Manual record; scheduled record; alarm record; Record priority: Manual > external > schedule
	(1280 × 720)	Default	Support one-click restoring

User Management	Up to 20
Security	Username and password; MAC address; HTTPS; IEEE 802.1x; network access control
Region Management	Pre-warning zone; alarm zone; shield zone
Target Filtering	Yes, human/vehicle
Speed Filtering	Yes, 0–40 km/h (Objects whose speeds are not within the target speed range will not trigger alarms)
Recognition Sensitivity	Yes, human, vehicle recognition sensitivity configurable
Radar Structuring	Yes, target track displayed on live view, including distance, angle, speed and type
Radar OSD Detection Overlay	Yes, 8 positions
Device Attitude	Yes, display pitch angle and roll angle
Protection Zone Mapping	Yes, draw on live view to define actual radar protection zone
Auto Calibration	Yes, automatically calibrate radar and image
Manual Calibration	Yes, manually calibrate radar and image

Power

Operating Voltage	12V DC (±30%); PoE (802.3at)
Power Supply	12V DC/POE
Power Consumption	Basic power consumption: 10W; Max. power consumption: 22W
Port	Terminal block

Port

SD Card	Yes
Indicator Light	Yes. Network indicator (yellow); operation indicator (red and green); power indicator (green)
Audio Input	1 × 3.5 mm port
Audio Output	1 × 3.5 mm port
RS-485	1 (baud rate range: 1200 bps–115200 bps)

Environment

Operating Temperature	-40°C to +70°C (-40°F to +158°F)
Operating Humidity	≤ 95%
Protection	IP66

Structure

Casing	Metal + plastic
Product Dimensions	160.0 mm × 194.4 mm × 160.0 mm (6.30" × 7.65" × 6.30") (L × W × H)
Packaging Dimensions	277.0 mm × 274.0 mm × 224.0 mm (10.91" × 10.79" × 8.82") (L × W × H)
Packaging Method	4 in one package
Net Weight	2.17 kg (4.78 lb)
Gross Weight	2.80 kg (6.17 lb)
Installation	Pole mount; wall mount

Bracket	PFA154
Power Adapter	Optional

Certifications

	CE: EN 50385; EN 55032; EN 55024; EN 55035; EN
Certifications	50130-4; ETSI EN 301 489-1; ETSI EN 301 489-3; EN
	62368-1

Ordering Information		
Туре	Model	Description
Visual Radar	DH-PFR5QI-E60	4MP IR 60 m visual radar
Accessory	PFA154	Pole mount bracket

Accessory



PFA154 Pole mount bracket

Wall Mount	Pole Mount

Dimensions (mm [inch])

