dahua TECHNOLOGY

DH-IPC-PFW83242-A180

4x8MP WizMind Multi-Sensor Panoramic Bullet Network Camera

- 4 × 8MP, 1/1.8" CMOS image sensor, low illuminance, high image definition
- Outputs max. 32MP (8192 × 3840) @25/30 fps; with intelligent functions enabled, it can output 32MP (8192 × 3840) @25 fps
- Built-in IR LED, max. IR distance: 30 m
- ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments.
- Intelligent detection: Intrusion, tripwire
- Intelligent functions: Crowd distribution map, Vehicle situation
- Supports object tracking and image correction
- Support video clip, the image can be clipped as needed
- Supports max. 256 G Micro SD card
- 12V DC power supply
- IP67, IK10 protection

| 32Mp | Panoramic Splicing | Crowd Density | Vehicle Density | Perimeter Protection | IP67 | IK10 |

Launched by Dahua Technology, Dahua WizMind is a full portfolio of solutions composed of project-oriented products including IPC, NVR, PTZ, XVR, Thermal and software platform which adopts industry-leading deep learning algorithms. Focusing on customer's requirements, WizMind provides precise, reliable and comprehensive AI solutions for verticals.

Series Overview

The splicing camera supports a 180° panoramic view and 4-channel hardware splicing to realize HD panoramic surveillance. The camera supports crowd situation analysis, vehicle situation analysis, and perimeter protection. It is widely applied in various scenes such as squares, airports, safe city, and traffic.

Functions

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

Panoramic Splicing
With advanced splicing algorithm, Dahua Panoramic Splicing technology deletes overlapped area and splices multiple images to be a complete panorama. The field of view of the spliced image can be up to 360°, which largely improves surveillance efficiency and user experience. Generally, after splicing, the field of view of four-sensor camera can be 180°, and the field of view of eight-sensor camera can be 360°.

Crowd Density
With deep learning algorithm, Dahua Crowd Density technology can detect the crowd density on the image, and display it on heat map; it can detect people quantity and density in selected area and set threshold. When the number or density is larger or smaller than the threshold, it triggers linkage.

Vehicle Density
With deep learning algorithm, Dahua Vehicle Density technology analyses the vehicle situation in the image, such as vehicle number in selected area. You can set threshold, and when the number is larger or smaller than the threshold, it triggers linkage.

Perimeter Protection
With deep learning algorithm, Dahua Perimeter Protection technology can recognize human and vehicle accurately. In restricted area (such as pedestrian area and vehicle area), the false alarms of intelligent detection based on target type (such as tripwire, intrusion) are largely reduced.

Cyber Security
Dahua network camera is equipped with a series of key security technologies, such as security authentication and authorization, access control, trusted protection, encrypted transmission, and encrypted storage, which improve its security defense and data protection, and prevent malicious programs from invading the device.

Protection (IP67, IK10, wide voltage)

IP67: The camera passes a series of strict test on dust and soak. It has dust-proof function, and the enclosure can works normal after soaking in 1 m deep water for 30 minutes.

IK10: The enclosure can stand the punch more than 5 times from a 5 kg hammer falling from a height of 40 cm (Impact energy is 20J).

Wide voltage: The camera allows ±30% input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

Technical Specification

Camera

Image Sensor	1/1.8" 8Megapixel progressive CMOS
Max. Resolution	8192 (H) × 3840 (V)
ROM	4 GB
RAM	8 GB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.005 Lux@F1.6 (Color,30IRE) 0.0005 Lux@F1.6 (B/W,30IRE) 0 Lux (Illuminator on)
S/N Ratio	>56 dB
Illumination Distance	30 m (98.4 ft) (IR LED)
Illuminator On/Off Control	Auto/Manual
Illuminator Number	8 (IR LED)
Pan/Tilt/Rotation Range	Tilt: 0°–90° Rotation: 0°–360°

Lens

Lens Type	Fixed-focal
Mount Type	M12
Focal Length	2.8 mm
Max. Aperture	F1.6
Field of View	Horizontal: 180°; vertical: 90°
Iris Type	Fixed
Close Focus Distance	1.8 m (5.9 ft)

DORI Distance	Detect	Observe	Recognize	Identify
	84.0 m (275.6 ft)	33.6 m (110.2 ft)	16.8 m (55.1 ft)	8.4 m (27.6 ft)

Professional, intelligent

Vehicle Density	Vehicle density; parking upper limit; vehicle congestion alarm
IVS (Perimeter Protection)	Intrusion; tripwire
Crowd Distribution Map	Crowd map, global people counting; people counting in area

Video

Video Compression	H.265; H.264; H.264H; H.264B; MJPEG (only supported by the sub stream)
Smart Codec	Smart H.264+/Smart H.265+

Video Frame Rate	Main stream: 8192 × 3840 (1–25/30 fps) Sub stream: 1280 × 600 (1–25/30 fps) Third stream: 2304 × 1080 (1–25/30 fps)
Stream Capability	3 streams
Resolution	Splicing: 32M (8192 × 3840); 7680 × 3600; 7168 × 3360; 6720 × 3152; 5760 × 2700; 4800 × 2252; 4096 × 1920; 2880 × 1360; 2304 × 1080; 1280 × 600; 2408 × 960; 1520 × 712 Non-splicing: 4320 × 7680; 2880 × 5120; 2160 × 3840; 720 × 1280; 1080 × 1920
Bit Rate Control	CBR/VBR
Video Bit Rate	H.264: 96 kbps–65536 kbps H.265: 38 kbps–55612 kbps
Day/Night	Auto (ICR)/Color/B/W
BLC	Yes
HLC	Yes
WDR	DWDR
White Balance	Auto/natural/street lamp/outdoor/manual/regional custom
Gain Control	Auto/Manual
Noise Reduction	3D NR
Motion Detection	OFF/ON (4 areas, rectangular)
Region of Interest (RoI)	Yes (4 areas)
Smart Illumination	Yes
Privacy Masking	4 areas

Audio

Audio Compression	G.711A; G.711Mu; G.726; G.723

Alarm Event

Alarm Event	No SD card; SD card full; SD card error; service life warning; network disconnection; IP conflict; illegal access; voltage detection; safety exception; motion detection; video tampering; scene changing; Input Abnormal detection; intensity change detection; external alarm; tripwire; intrusion; crowd density detection; traffic congestion; maximum vehicle

Network

Network	RJ-45 (10/100/1000 Base-T)
SDK and API	Yes
Cyber Security	Video encryption; firmware encryption; configuration encryption; Digest; WSSE; account lockout; security logs; IP/MAC filtering; generation and importing of X.509 certification; syslog; HTTPS; 802.1x; trusted boot; trusted execution; trusted upgrade
Protocol	IIPv4; IPv6; HTTP; HTTPS; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; 802.1x; SNMP; Bonjour
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; Milestone; Genetec; RTMP
User/Host	20

Storage	FTP; SFTP; Micro SD card (support max. 256 G); NAS
Browser	IE:IE10 and later
Management Software	Smart PSS; DSS

Certification

Certifications	CE-LVD: EN62368-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07

Port

RS-485	1 (baud rate range: 1200 bps–115200 bps)
Audio Input	1 channel (RCA port)
Audio Output	1 channel (RCA port)
Alarm Input	2 channels in: 5mA 3V–5V DC
Alarm Output	2 channels out: 1,000mA 30V DC/500mA 50V DC

Power

Power Supply	12V DC
Power Consumption	Basic power consumption: 13.6W (12V DC) Max. power consumption (Intelligent functions enabled + IR full intensity + WDR): 24.3W (12V DC)

Environment

Operating Temperature	−40°C to +60°C (−40°F to +140°F)
Operating Humidity	≤ 95%
Storage Temperature	−40°C to +60°C (−40°F to +140°F)
Protection Grade	IP67; IK10

Structure

Casing	Metal
Dimensions	298.3 mm × 172.5 mm × 120.5 mm
Net Weight	3.16 kg (7.0 lb)
Gross Weight	4.06 kg (9.0 lb)
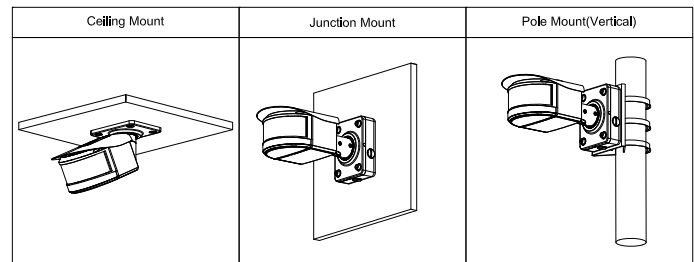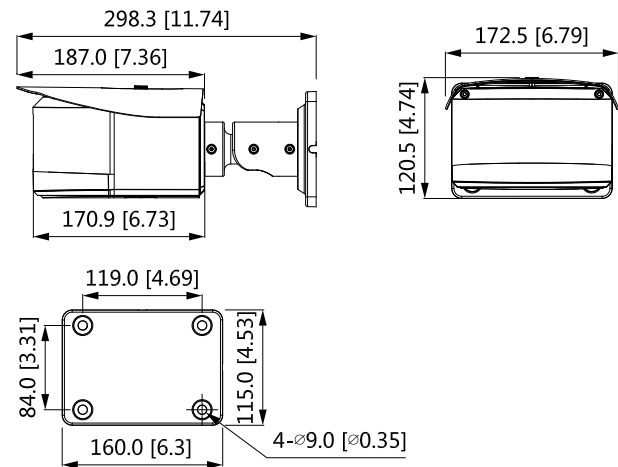
Ordering Information

Type	Part Number	Description
32M Camera	DH-IPC-PFW83242P-A180-E4	4x8MP WizMind Multi-Sensor Panoramic Bullet Network Camera
	DH-IPC-PFW83242N-A180-E4	4x8MP WizMind Multi-Sensor Panoramic Bullet Network Camera
	IPC-PFW83242P-A180-E4	4x8MP WizMind Multi-Sensor Panoramic Bullet Network Camera
	IPC-PFW83242N-A180-E4	4x8MP WizMind Multi-Sensor Panoramic Bullet Network Camera
Accessories (Optional)	PFA120-SG	Junction Box
	PFA150-SG	Pole Mount

Accessories

Optional

PFA120-SG
Junction Box

PFA150-SG
Pole Mount

Ceiling Mount	Junction Mount	Pole Mount(Vertical)

Dimensions (mm [inch])

298.3 [11.74]
187.0 [7.36]
170.9 [6.73]

172.5 [6.79]
120.5 [4.74]

119.0 [4.69]
84.0 [3.31]
115.0 [4.53]
160.0 [6.3]
4-⌀9.0 [⌀0.35]