DH-IPC-PFW83242-A180-S2

4 × 8 MP Multi-Sensor Panoramic Bullet WizMind Network Camera

WizMind

Launched by Dahua Technology, Dahua WizMind is a full portfolio of solutions composed of project-oriented products including IPC, IVSS,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 and traffic.

Functions

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°.

Distortion Correction

With advanced distortion correction algorithm, Dahua Distortion Correction corrects the image distortion in both horizontal and vertical directions to be consistent with the actual situation.

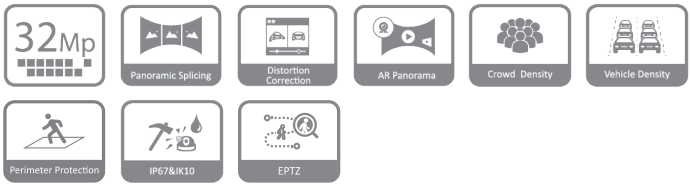
AR Panorama

Dahua AR panorama technology generates wide-field of view through panoramic merging and splicing. The software overlaps the cameras as tags in the image. Click the tag to display the corresponding camera video, which makes monitoring visual and convenient, and improves command efficiency.

EPTZ

With advanced target detection and tracking algorithms, Dahua EPTZ technology can simultaneously zoom in and track multiple humans and vehicles that trigger alarms. It provides rich details and a panoramic view at the same time.

- 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) @20 fps
- Built-in IR LED, and the max. illumination distance is 30 m.
- ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments.
- Intelligent functions: Crowd Distribution Map, Vehicle Density, Perimeter Protection, EPTZ.
- Support image correction.
- Alarm: 2 in, 2 out; audio: 1 in, 1 out; 485; BNC; supports max. 256G SD card.
- 12 VDC/24 VAC/PoE power supply; easy for installation
- IP67 and IK10 protection
- AR panorama technology; various AR tags can be overlaid.



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.

Technical Specification

Camera

Image Sensor	1/1.8" CMOS
Max. Resolution	8192 (H) × 3840 (V)
ROM	8 GB
RAM	4 GB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.005 lux@F1.6 (Color,30 IRE) 0.0005 lux@F1.6 (B/W,30 IRE) 0 Lux (Illuminator on)
S/N Ratio	>56 dB
Illumination Distance	30 m (98.43 ft) (IR LED)
Illuminator On/Off Control	Auto; Manual
Illuminator Number	8 (IR LED)
Pan/Tilt/Rotation Range	Pan: 0°–355° Tilt: 0°–90° Rotation:0°–360°

Lens

Lens Type	Fixed-focal			
Lens Mount	M16			
Focal Length	2.8 mm			
Max. Aperture	F1.6			
Field of View	H: 180°; V: 100°			
Iris Control	Fixed			
Close Focus Distance	1.8 m (5.90 ft)			
DORI Distance	Detect	Observe	Recognize	Identify
	84.0 m (275.59 ft)	33.6 m (110.24 ft)	16.8 m (55.12 ft)	8.4 m (27.56 ft)
	*DORI (Detect, Observe, Recognize, Identify) is a standard system (EN-62676-4) for defining the ability of a person viewing the video to distinguish persons or objects within a covered area. The numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and commissioning manual/project design tool.			

Intelligence

EPTZ	Yes
IVS (Perimeter Protection)	Tripwire; intrusion; parking detection
Vehicle Density	Vehicle density; parking upper limit; vehicle congestion alarm
Crowd Distribution Map	Crowd map, global people counting; people counting in area
Smart Search	Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos.

Video

Video Compression	H.265; H.264; H.264H; H.264B; MJPEG (only supported by the sub stream)
Smart Codec	Smart H.265+; Smart H.264+
Video Frame Rate	Prioritize videos: Main stream: 8192 × 3840@(1–25/30 fps) Sub stream: 1280 × 600@(1–25/30 fps) Third stream: 2304 × 1080@(1–25/30 fps) Prioritize intelligence: Main stream: 8192 × 3840@(1–20 fps) Sub stream: 1280 × 600@(1–20 fps) Third stream: 2304 × 1080@(1–20 fps) *The values above are the max. frame rates of each stream; for multiple streams, the values will be subjected to the total encoding capacity.
Stream Capability	3 streams
Resolution	8192 × 3840; 7680 × 3600; 7168 × 3360; 6720 × 3152; 5760 ×2700; 4800 × 2252; 4096 × 1920; 2880 × 1360; 2304 × 1080; 2048× 960; 1520 × 712; 1280 × 600;8192 × 3840; 7680 × 3600; 7168 × 3360; 6720 × 3152; 5760 × 2700; 4800 × 2252; 4096 × 1920; 2880 × 1360; 2304 × 1080; 2048 × 960; 1520 × 712; 1280 × 600
Bit Rate Control	CBR/VBR
Video Bit Rate	H.264: 96kbps–32768 kbps; H.265: 38kbps–32768 kbps
Day/Night	Auto(ICR)/Color/B/W
BLC	Yes
HLC	Yes
WDR	DWDR
White Balance	Auto;natural;street lamp;outdoor;manual;regional custom;Auto; natural; street lamp; outdoor; manual; custom area
Gain Control	Auto; Manual
Noise Reduction	3D NR
Motion Detection	OFF/ON (4 areas, rectangular)
Region of Interest (RoI)	Yes (4 areas)
Privacy Masking	4 areas

Audio

Audio Compression	G.711a; G.711Mu; G.726: G.723; PCM

Alarm

Alarm Event	No SD card; SD card full; SD card error; SD card durability warning; network disconnection; IP conflict; illegal access; motion detection; video tampering; scene changing; audio detection; voltage detection; external alarm; security exception; crowd distribution map; tripwire; intrusion; parking detection; intensity change; traffic congestion; parking upper limit

Network

Network Port	RJ-45 (10/100/1000 Base-T)
SDK and API	Yes
Network Protocol	IPv4; IPv6; HTTP;TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; SNMP
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI

User/Host	20
Storage	FTP; SFTP; Micro SD card (support max. 256 GB); NAS
Browser	IE: IE 9 and later Chrome: Chrome 86 and later Firefox: Firefox 86 and later
Management Software	DSS
Security	Trusted execution; Digest; security logs; WSSE; account lockout; syslog; 802.1x; IP/MAC filtering; HTTPS; trusted upgrade; trusted boot; generation and importing of X.509 certification

Certification

Certifications	CE-LVD: EN62368-1; CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU; FCC: 47 CFR FCC Part 15; Subpart B; UL/CUL: UL62368-1 & CAN/CSA C22.2 No. 62368-1-14

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–5 VDC
Alarm Output	2 channels out: 1,000mA 30 VDC/500 mA 50 VAC

Power

Power Supply	12 VDC/24 VAC/PoE+(802.3at)
Power Consumption	Basic power consumption: 10.6 W (12 VDC); 11.9 W(24 VAC); 11.9 W (PoE) Max. power consumption (Intelligence on +IR intensity + WDR): 22.2 W (12 VDC); 25 W (24 VAC); 25 W (PoE)

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)
Storage Humidity	≤95%
Protection	IK10; IP67
Anti-corrosion Level	Moderate Protection(Only supported by -ATC model) *The products feature high-grade anti-corrosion protection, making them well-suited for environments with standard corrosion resistance requirements. They perform reliably from 2 km (1.24 mi) and above in coastal areas and in locations prone to acid rain exposure.

Structure

Casing Material	Metal + plastic
Product Dimensions	298.3 mm × 172.5 mm × 120.5 mm (11.74" × 6.79" × 4.74") (L × W × H)
Net Weight	3.16 kg (6.97 lb)
Gross Weight	4.06 kg (8.95 lb)

Ordering Information

Type	Model	Description
32MP Camera	DH-IPC-PFW83242-A180-S2	4 × 8 MP Multi-Sensor Panoramic Bullet WizMind Network Camera
	IPC-PFW83242-A180-S2	4 × 8 MP Multi-Sensor Panoramic Bullet WizMind Network Camera
Accessories (Optional)	PFA120-SG	Junction Box
	PFA150-SG	Pole Mount Bracket
	PFM320D	12 VDC 2 A Power Adapter
	PFM900-E	Integrated Mount Tester
	TF-P100	MicroSD Memory Card

Accessories

Optional:

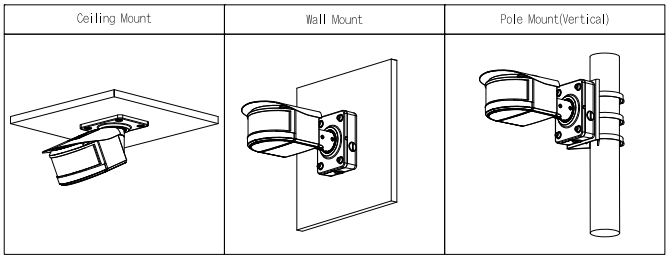
PFA120-SG
Junction Box

PFA150-SG
Pole Mount
Bracket

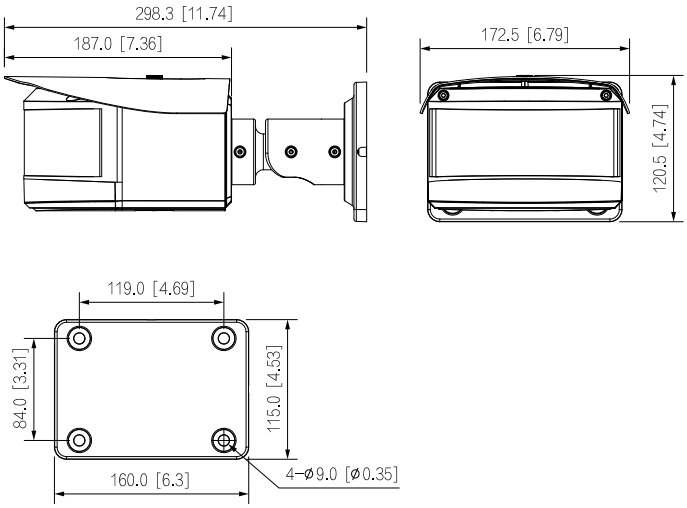
PFM320D
12 VDC 2 A
Power Adapter

PFM900-E
Integrated
Mount Tester

TF-P100
MicroSD
Memory Card



Dimensions (mm[inch])



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