DH-IPC-PDBW8840-A180

4x2MP WizMind Multi-Sensor Panoramic Dome Network Camera

- Four 2MP 1/2.8" CMOS image sensor, low illuminance, high image definition
- Outputs max. 8MP (4096 × 1800) @30 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 functions: Crowd distribution map, Vehicle Density
- Abnormality detection: Motion detection, video tampering, scene changing, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection
- Alarm: 2 in, 2 out; audio: 1 in, 1 out; 485; BNC; supports max. 256 G SD card
- 12V DC/24V AC/PoE power supply; easy for installation
- Supports object tracking
- IP67,IK10 protection

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.

IVS

With advanced video algorithm, Dahua IVS technology supports intelligent functions, such as tripwire and intrusion.

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	1/2.8"4x2Megapixel progressive CMOS
Max. Resolution	4096 (H) × 1800 (V)
ROM	4 GB
RAM	2 GB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.002 Lux @F1.6
S/N Ratio	＞56dB
Illumination Distance	30 m (98.4 ft) (IR LED)
Illuminator On/Off Control	Auto/Manual
Illuminator Number	6 (IR LED)
Pan/Tilt/Rotation Range	Pan: 0° to 355° Tilt: 0° to 75° Rotation:-20° to 20°

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	0.6 m (2.0 ft)			
DORI Distance	Detect	Observe	Recognize	Identify
	38.6 m (126.6 ft)	15.4 m (50.5 ft)	7.7m (25.3 ft)	3.9 m (12.8 ft)

Artifical Intelligence

Vehicle Density	Vehicle density; parking upper limit; vehicle congestion alarm
Crowd Density	Crowd map, global people counting; people counting in area

General Intelligence

IVS	Tripwire; intrusion

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	Main stream: 4096 × 1800 (1–25/30 fps) Sub stream: 1024 × 452 (1–25/30 fps) Third stream: 1920 × 832 (1–25/30 fps)
Stream Capability	3 streams
Resolution	4096 × 1800; 3840 × 1680; 2880 × 1264; 1024 × 452; 1920 × 832; 1280 × 560
Bit Rate Control	CBR/VBR
Video Bit Rate	H.264: 9 kbps–17664 kbps H.265: 9 kbps–17664 kbps
Day/Night	Auto (ICR)/Color/B/W
BLC	Yes
HLC	Yes
WDR	DWDR
Scene Self-adaptation	Yes
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
Defog	Yes
Privacy Masking	4 areas

Audio

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

Alarm Event

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

Network

Network	RJ-45 (10/100/1000 Base-T)
SDK and API	Yes
Protocol	IPv4; 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
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone; Genetec
User/Host	20 (Total bandwidth: 80 M)
Storage	Dahua Cloud ; FTP; SFTP; Micro SD card (support max. 256 G); NAS
Browser	IE: IE9 and later Chrome: 50 and later Firefox: 48 and later
Management Software	Smart PSS; DSS; DMSS
Mobile Phone	IOS; Android

Certifications

Certifications	CE-LVD: EN62368-1 CE-EMC: Electromagnetic Compatibility Directive 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/24V AC/PoE(802.3at)
Power Consumption	<14.9W

Environment

Operating Conditions	–40°C to +60°C (–40°F to +140°F)/Less than 95% RH
Storage Temperature	–40°C to +60°C (–40°F to +140°F)
Protection Grade	IP67;IK10

Construction

Casing	Metal + plastic
Dimensions	169.5 mm × Φ212 mm (6.7" × Φ8.3")
Net Weight	3.65 kg (8.0 lb)
Gross Weight	4.37 kg (9.6 lb)

Accessories

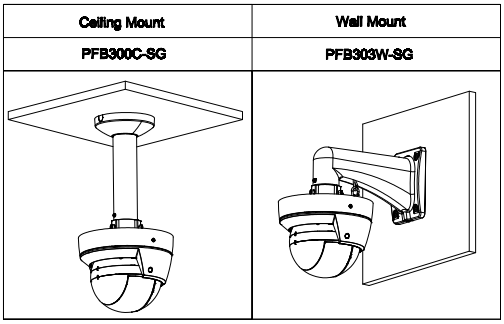
Included:

PFA111
Mount Adapter

Optional:

PFB303W-SG
Wall Mount

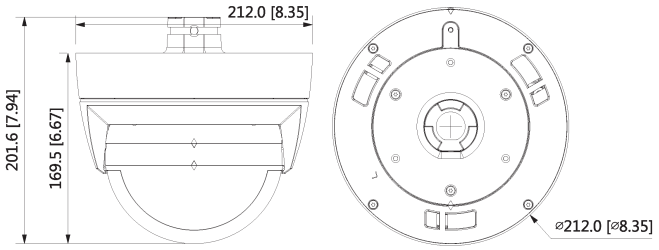
PFB300C-SG
Ceiling mount



Ordering Information

Type	Model	Description
8MP Camera	DH-IPC-PDBW8840P-A180-E4-DC12AC24	4x2MP WizMind Multi-Sensor Panoramic Dome Network Camera, PAL
	DH-IPC-PDBW8840N-A180-E4-DC12AC24V	4x2MP WizMind Multi-Sensor Panoramic Dome Network Camera,NTSC
	IPC-PDBW8840P-A180-E4-DC12AC24V	4x2MP WizMind Multi-Sensor Panoramic Dome Network Camera,PAL
	IPC-PDBW8840N-A180-E4-DC12AC24V	4x2MP WizMind Multi-Sensor Panoramic Dome Network Camera,NTSC
Accessories	PFA111	Mount Adapter
	PFB300C-SG	Ceiling mount
	PFB303W-SG	Wall Mount

Dimensions (mm[inch])



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