



DH-IPC-PDBW8840-A180

4x2MP WizMind Multi-Sensor Panoramic Dome Network Camera



Wiz Mind

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.

- 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
- 12V DC/24V AC/PoE power supply; easy for installation
- · Supports object tracking
- IP67,IK10 protection













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.



| Focal Length 2.8 mm Adarm Event Alarm Event Alarm Event No SD card; SD card full; SD card error; network disconnection; IP conflict; Illegal access; motion detection; wide otampening; inparties, intensity sharps and detection; wide otampening; inparties, intensity sharps are reported by the subject of view and property of the p | Technical Specification | | | | | Bit Rate Control | CBR/VBR |
|--|---|---|---------------------|----------|-----------------------|---|---|
| Mount Mou | Camera | | | | Video Bit Rate | · | |
| Mode | Image Sensor | 1/2.8"4x2Megapixel progressive CMOS | | | | Day/Night | Auto (ICR)/Color/B/W |
| Machine Mach | Max. Resolution | 4096 (H) × 1800 (V) | 4096 (H) × 1800 (V) | | | | Yes |
| Scanning System | ROM | 4 GB | | | | | |
| Scene Progressive Progressive Scene Self-adaptation Ves | RAM | 2 GB | | | | | |
| Electronic Shutter's Speed Auto/Manual 1/2 s-1/10,000 to | Scanning System | Progressive | | | | | |
| Min. Mornination | Electronic Shutter Speed | Auto/Manual 1/3 s- | 1/100,000 s | | | Scene Sen-adaptation | |
| Moster Detection | Min. Illumination | 0.002 Lux @F1.6 | | | | White Balance | |
| Mortion Detection OFF/ON (a areas, rectangular) Mortion Detection OFF/ON (a areas, rectangular) | S/N Ratio | >56dB | | | | Gain Control | Auto/Manual |
| Bluminator Number 6,6 (R (EP) Region of Interest (Rol) Yes (4 areas) | Illumination Distance | 30 m (98.4 ft) (IR LE | D) | | | Noise Reduction | 3D NR |
| Pan/Tit/Rotation Range | Illuminator On/Off Control | Auto/Manual | | | | Motion Detection | OFF/ON (4 areas, rectangular) |
| Pan/Tilt/Rotation Range Tilt: O'to 75' Rolation: 20' to 20' Lens Lens Type Fixed focal Mount Type M12 Audio Compression Audio Gompression G.711A; G.711Mu; G.726; AAC; G.723 Audio Compression G.711A; G.711Mu; G.726; AAC; G.723 Alarm Event No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access, motion of detection; wide sumpreniis traverie; intrusion: seen echanging audio detection; wide sumpreniis traverie; intrusion: seen echanging audio detection; wide sumpreniis traverie; intrusion: seen echanging; audio detection; wide sumpreniis traverie; intrusion upper limits verippe volge detection; external alarm; safety exerption upper limits upper limits upper limits upper limits upper limits upper limits upper limits; vehicle congestion alarm and provide congestion alarm. Artifical Intelligence Vehicle Density Vehicle density, parking upper limit; vehicle congestion alarm. Vehicle Density Crowd map, global people countring; people countring; people countring in area Vehicle Density Crowd map, global people countring; people countring; people countring in area Video Video Video Video Compression Alarm Event Alarm Event Network Ri-45 (10/100/1000 Base-T) Video Protocol Prot | Illuminator Number | 6 (IR LED) | | | | Region of Interest (RoI) | Yes (4 areas) |
| Defog Yes | Day/Tilt/Datation Days | | | | | Smart Illumination | Yes |
| Ensitype Fixed-focal Audio Aud | Pan/Till/Rotation Range | | | | | Defog | Yes |
| Mount Type M12 Audio Compression G.711A; G.711Mu; G.726; AAC; G.723 Alarm Event Max. Aperture F1.6 Max. Aperture F1.6 Moritorial 180°; Vertical 90° Alarm Event Size of View Horizontal 180°; Vertical 90° Alarm Event Size of View Horizontal 180°; Vertical 90° Alarm Event Size of View Horizontal 180°; Vertical 90° Alarm Event Size of View Size of Siz | Lens | ens | | | | Privacy Masking | 4 areas |
| Focal Length 2.8 mm Alarm Event Alarm Event No SD card; 5D card full; 5D card error; network disconnection; IP conflict; Illegal access, motion detection, wide outpropring; trypwer; notation detection, wide outpropring; trypwer; notation detection, search energing; subject election; per conflict; Illegal access, motion detection, with conflict; Illegal access, motion detection, with conflict; Illegal access, motion detection, search energing; subject election; per motion search energing; subject election; per motion covered distribution map; vehicle conjection; parkin upper limit Network DORI Distance Detect Observe Recognize Identify Network Network Network R-45 (10/100/1000 Base-T) SDK and API Yes Artifical Intelligence Vehicle density; parking upper limit; vehicle conjection alarm Vehicle density; parking upper limit; vehicle conjection alarm Crowd anab, global people counting; people counting; people counting in area Vehicle Density Crowd anab, global people counting; people counting in area User/Host 2.0 (Total bandwidth: 80 M) Storage Dahua Cloud; FTP; SFTP; Micro SD card (support max, 256 G); NAS Wideo Tripwire; intrusion Storage Management Software Man | Lens Type | Fixed-focal | | | | Audio | |
| Max. Aperture F1.6 Field of View Horizontal :180°; Vertical 90° Fixed Horizontal :180°; Vertical 90° Fixed Fixed Fixed Horizontal :180°; Vertical 90° Alarm Event disconnection; IP conflict; Illegal access; motion detection, wide to tampering; tripwire; intrusion, seeme changing; audio detection; intersity change voltage detection; external alarm; safety exception crow distribution map; vehicle congestion; parkin upper limit Network Network Network RJ-45 (10/100/1000 Base-T) SDK and API Ves Artifical Intelligence Vehicle Density Vehicle density; parking upper limit; vehicle congestion alarm Vehicle Density Crowd map, global people counting; people counting in area User/Host Q1 (Total bandwidth: 80 M) Video Video Compression Tripwire; intrusion Tripwire; intrusion Storage Browser Management Software Management Software Management Software Management Software Management Software Management Software Mobile Phone Certifications Certifications Certifications Certifications Certifications Certifications Proceedings access; motion detection, intensive, intrusion detection, where to detection, where the detection, intensive, through circumstance steeps without asset proper with park of the proper working through the proper intrusion and proper limit; vehicle conditions and proper limit; vehicle condi | Mount Type | M12 | | | | Audio Compression | G.711A; G.711Mu; G.726; AAC; G.723 |
| Field of View Horizontal :180°; Vertical 90° Iris Type Fixed Fixed Fixed Horizontal :180°; Vertical 90° Iris Type Fixed Fixed Horizontal :180°; Vertical 90° Iris Type Horizontal :180°; Vertical 90° Interoperability Pixed Horizontal :180°; Vertical 90° Interoperability Pixed Horizontal :180°; Pixed Horizontal :18 | Focal Length | 2.8 mm | 2.8 mm | | | Alarm Event | |
| Field of View Horizontal :180"; Vertical 90" Alarm Event Alarm Event Scene changing, audio detection; intensity change voltage detection; extensity change voltage detection; extensial alarm; safety exception crowd distribution map; vehicle congestion; parking upper limit Network | Max. Aperture | F1.6 | | | | | |
| Iris Type Fixed Close Focus Distance 0.6 m (2.0 ft) Detect Observe Recognize Identify Detect Observe Recognize Identify Network Network RU-45 (10/100/1000 Base-T) SDK and API Yes Artifical Intelligence Vehicle Density Vehicle density; parking upper limit, vehicle congestion alarm Vehicle Density Crowd map, global people counting; people counting in area Crowd map, global people counting in area User/Host Dahua Cloud; FTP; STP; Micro SD card (support max, 256 G); NAS Video Video Compression H_265; H_264; H_264H; H_264B; MJPEG (only supported by the sub stream) Video Frame Rate Main stream: 4096 x 1800; 3840 × 1680; 2880 × 1264; 1024 × Resolution Vage on the stream of the support of the sub-stream of the support of the sub-stream of the sub-stream of the support of the sub-stream of the support of the sub-stream of the sub-stream of the sub-stream of the sub-stream of the support of the sub-stream of | Field of View | Horizontal :180°; Vertical 90° | | | | Alarm Event | detection; video tampering; tripwire; intrusion; scene changing; audio detection; intensity change; voltage detection; external alarm; safety exception; crowd distribution map; vehicle congestion; parking |
| Detect Observe Recognize Identify Detect Observe Recognize Identify 3.6 m (15.4 m (126.6 ft) (50.5 ft) (25.3 ft) (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 Crowd Density Dens | Iris Type | Fixed | | | | | |
| Detect Observe Recognize Identity 38.6 m (15.4 m (7.7m 3.9 m (12.8 ft)) Artifical Intelligence Vehicle Density Vehicle density; parking upper limit; vehicle congestion alarm Crowd map, global people counting; people counting in area Crowd map, global people counting in area User/Host User/Host Storage Browser Lie: IE9 and later Chrome: 50 and later Firefox: 48 and later Chrome: 50 and later Firefox: 48 and later Chrome: 50 and later Firefox: 48 and later Wideo Frame Rate Video Frame Rate Main stream: 4096 x 1800 (1–25/30 fps) Stream Capability Joseph NPP: More Septime (2,2 x 850 fps) Stream Capability August 280 x 1264; 1024 x Certifications Network RI-45 (10/100/1000 Base-T) Network RI-45 (10/100/1000 Base-T) Network RI-45 (10/100/1000 Base-T) Spik and API Yes SDK and API Interoperability Nolvices/Profile Tj. Pritice, Profile Tj. Pritice, Pro | Close Focus Distance | 0.6 m (2.0 ft) | | | | Notwork | upper limit |
| Artifical Intelligence Vehicle Density Vehicle density; parking upper limit; vehicle congestion alarm Crowd Density Crowd map, global people counting; people counting in area Video Compression Video Compression L25; H.264; H.264H; H.264B; MJPEG (only supported by the sub stream; 1920 × 832 (1–25/30 fps) Smart Codec Smart H.265+/ Smart H.264+ Video Frame Rate Vehicle density; parking upper limit; vehicle congestion alarm Video Frowd Density Video Frowd map, global people counting; people c | DOPI Dictance | Detect Obser | ve Recognize | Identify | | | DL 45 (40)(400)(4000 D |
| Artifical Intelligence Vehicle Density Vehicle density; parking upper limit; vehicle congestion alarm Vehicle Density Crowd map, global people counting; people counting; people counting in area User/Host ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone; Genetec User/Host Olahua Cloud; FTP; SFTP; Micro SD card (support max. 256 G); NAS Video Video Compression H.265; H.264; H.264H; H.264B; MJPEG (only supported by the sub stream) Firefox: 48 and later Management Software 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 4096 × 1800; 3840 × 1680; 2880 × 1264; 1024 × Protocol Proto | DONI DISTANCE | | | | | | |
| Vehicle Density Vehicle density; parking upper limit; vehicle congestion alarm Protocol RTCP; RTMP; SMTP; SMTP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Milcrast; ICMP; IGMP; NFS; SAMBA; PPPoE; 802.1x; SNMP Crowd Density Crowd map, global people counting; people counting in area Interoperability ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone; Genetec User/Host 20 (Total bandwidth: 80 M) Video Dahua Cloud; FTP; SFTP; Micro SD card (support max. 256 G); NAS Video Browser IE: IE9 and later Chrome: 50 and later Firefox: 48 and later Video Compression H.265; H.264; H.264H; H.264H; MJPEG (only supported by the sub stream) Management Software Smart PSS; DSS; DMSS Smart Codec Smart H.265+/ Smart H.264+ Mobile Phone IOS; Android 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) Certifications Stream Capability 3 streams CE-IVD: EN62368-1 CF-EMC: Electromagnetic Compatibility Directive FCC: 47 CFR FCC Part 15, Subpart B U/CLI: UIG0950-1-CI AN/CSA C22.2 No.60950-1-CI CAIVCSA C22.2 No.60950-1-CI CAIVC | Artifical Intelligence | | | | | SDK and API | |
| Crowd Density Counting in area User/Host User/Host 20 (Total bandwidth: 80 M) Storage Dahua Cloud; FTP; SFTP; Micro SD card (support max. 256 G); NAS 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+ Main stream: 4096 × 1800 (1–25/30 fps) Third stream: 1920 × 832 (1–25/30 fps) Third stream: 1920 × 832 (1–25/30 fps) Stream Capability Milestone; Genetec User/Host 20 (Total bandwidth: 80 M) Dahua Cloud; FTP; SFTP; Micro SD card (support max. 256 G); NAS IE: IE9 and later Chrome: 50 and later Firefox: 48 and later Management Software Mobile Phone IOS; Android Certifications Certifications Certifications Certifications Certifications Certifications | Vehicle Density | Vehicle Density Vehicle density; parking upper limit; vehicle | | | Protocol | RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; | |
| Storage Dahua Cloud; FTP; SFTP; Micro SD card (support max. 256 G); NAS | Crowd Density | | people counting; p | eople | | Interoperability | |
| Video Video Compression H.265; H.264; H.264B; MJPEG (only supported by the sub stream) Smart Codec Video Frame Rate Main stream: 4096 × 1800 (1–25/30 fps) Sub stream: 1920 × 832 (1–25/30 fps) Third stream: 1920 × 832 (1–25/30 fps) Stream Capability Streams Certifications Storage Max. 256 G); NAS IE: IE9 and later Chrome: 50 and later Firefox: 48 and later Management Software Smart PSS; DSS; DMSS Mobile Phone IOS; Android 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-CAN/CSA C22.2 No.6095 | General Intelligence | | | | | User/Host | 20 (Total bandwidth: 80 M) |
| Video Compression H.265; H.264; H.264B; MJPEG (only supported by the sub stream) Management Software Smart PSS; DSS; DMSS Smart Codec Smart H.265+/ Smart H.264+ Mobile Phone IOS; Android 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 Certifications Certifications Certifications Certifications Certifications | | Tripwire; intrusion | | | | Storage | , |
| Video Compression H.265; H.264; H.264B; MJPEG (only supported by the sub stream) Management Software Smart PSS; DSS; DMSS Mobile Phone IOS; Android Certifications Stream: 1024 × 452 (1–25/30 fps) Third stream: 1920 × 832 (1–25/30 fps) Stream Capability 3 streams 4096 × 1800; 3840 × 1680; 2880 × 1264; 1024 × Firefox: 48 and later Management Software Smart PSS; DSS; DMSS Certifications Certifications Certifications Certifications Certifications Certifications Certifications Certifications | Video | | | | Browser | | |
| Smart Codec Smart H.265+/ Smart H.264+ Mobile Phone IOS; Android 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) Certifications Stream Capability 3 streams 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-C | | | | | Firefox: 48 and later | | |
| Video Frame Rate Main stream: 4096 × 1800 (1–25/30 fps) Certifications Sub stream: 1024 × 452 (1–25/30 fps) Certifications Stream Capability 3 streams CE-LVD: EN62368-1 CE-EMC: Electromagnetic Compatibility Directive FCC: 47 CFR FCC Part 15, Subpart B FCC: 47 CFR FCC Part 15, Subpart B UI/CUL: UI:60950-1 CAN/CSA C22.2 No.60950-1-C UI/CUL: UI:60950-1 CAN/CSA C22.2 No.60950-1-C | Smart Codec | Smart H.265+/ Smart H.264+ | | | | - | |
| Stream Capability 3 streams Certifications Certifications Certifications CE-EMC: Electromagnetic Compatibility Directive FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-0 | Video Frame Rate Sub stream: 1024 × 452 (1–25/30 fps) | | | | ios, Aliuloiu | | |
| Resolution 4096 × 1800; 3840 × 1680; 2880 × 1264; 1024 × UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-C | Stream Capability | 3 streams | | | | Contification | CE-EMC: Electromagnetic Compatibility Directive |
| | Resolution | 4096 × 1800; 3840 × 1680; 2880 × 1264; 1024 × | | | | Certifications | |

| P | O | r |
|---|---|---|
| | | |

| 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 $+60^{\circ}$ C (-40° F to $+140^{\circ}$ 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) |

Ordering Information

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

Accessories

Included:



PFA111-SG Mount Adapter

Optional:



PFB303W-SG Wall Mount



PFB300C-SG Ceiling mount

| Celling Mount | Wall Mount |
|---------------|------------|
| | |

Dimensions (mm[inch])



