# DH-IPC-PDW3849-A180-AS-PV

## 2x4MP TiOC Duo Splicing Fixed-focal Eyeball WizSense Network Camera



TiOC DUO

Launched by Dahua Technology, WizSense is a series of AI products and solutions that adopt independent AI chip and deep learning algorithm. It focuses on human and vehicle with high accuracy, enabling users to fast act on defined targets. Based on Dahua's advanced technologies, WizSense provides intelligent, simple and inclusive products and solutions.

### Series Overview

Dahua WizSense 3 Series Network Camera greatly saves on bandwidth and storage space through its AI Coding technology. Driven by its advanced deep learning algorithms, the camera supports intelligent functions such as perimeter protection, smart motion detection (SMD), Quick Pick, making it easy and convenient to use. Starlight technology and its large aperture lens also allow the camera to produce clear, vivid images even in poor lighting conditions.

### Functions

**SMD 4.0**

Dahua Smart Motion Detection technology works with intelligent algorithms to classify targets that trigger motion detection alarms. It filters out objects that are not targets, such as small and large animals, to avoid triggering false alarms. With an AI NVR, Quick Pick technology becomes available, allowing you to easily search for and pick out human and vehicle targets from SMD event videos, prioritizing the highest matches.

**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.

**Siren and Light Active Deterrence**

Dahua siren and light active deterrence network camera supports the light alarm and voice alarm when perimeter event occurs, to realize the deterrence and effective intervention. The camera is built in multiple voices for selection, and supports customized voice importing.

- Outputs 180° wide angle splicing image.
- Outputs max. 8 MP (4096 × 1860)@20 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in IR LED and warm light, the max. IR illumination distance is 25 m and warm light distance is 20 m.
- ROI, SMART H.264 +/H.265+, AI H.264/H.265, flexible coding, applicable to various bandwidth and storage environments.
- WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes.
- Intelligent monitoring: Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human), stay detection, loitering detection.
- Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 512 G Micro SD card; built in dual Mic; built in speaker, support two-way talk.
- 12 VDC/PoE power supply, easy for installation.
- IP67 protection.
- Sound and light alarm (red and blue lights).
- EPTZ: Enlarge and track the targets of intelligent alarms.
- SMD 4.0.
- One-tap arming/disarming through alarm input.




**Smart Dual Light**

Dahua Smart Dual Light technology adopts smart algorithm to detect targets. Usually, the IR illuminator is on at night; when the target appears in the monitoring area, the warm light is on, and the camera records the full-color video and information of key events. That is, the camera links snapshot and video with full-color image. When the target is out of the monitoring area, the warm light is off and the IR illuminator is on, which reduces light pollution efficiently.

**One-tap Disarming**

Dahua One-tap Disarming function, which is convenient and easy for operation, is the switch for event linkage. Customers can close and recover event linkage through mobile App, which meets multi-scenarios needs.

**Protection (IP67, 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.

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

## Technical Specification

### Camera

| | |
|---|---|
| Image Sensor | Dual 1/2.7" CMOS |
| Max. Resolution | 4096 (H) × 1860 (V) |
| ROM | 128 MB |
| RAM | 1 GB |
| Scanning System | Progressive |
| Electronic Shutter Speed | Auto/Manual 1/3 s–1/100,000 s |
| Min. Illumination | 0.005 lux@F1.4 (Color, 30 IRE)<br>0.0005 lux@F1.4 (B/W, 30 IRE)<br>0 lux (Illuminator on) |
| S/N Ratio | >56 dB |
| Illumination Distance | Up to 25 m (82.02 ft) (IR LED)<br>Up to 20 m (65.62 ft) (Warm light) |
| Illuminator On/Off Control | Auto; Manual |
| Illuminator Number | 2 (IR LED); 2 (Warm light) |
| Angle Adjustment | Pan: 0°–360°<br>Tilt: 0°–77°<br>Rotation: 0°–360° |

### Lens

| | |
|---|---|
| Lens Type | Fixed-focal |
| Lens Mount | M12 |
| Focal Length | 2.8 mm |
| Field of View | Horizontal: 180°; Vertical: 86° |
| Max. Aperture | F1.4 |
| Iris Control | Fixed |
| Close Focus Distance | 0.8 m (2.62 ft) |

| DORI Distance | Lens | Detect | Observe | Recognize | Identify |
|---|---|---|---|---|---|
| | 2.8 mm | 50.6 m (166.01 ft) | 20.2 m (66.27 ft) | 10.1 m (33.14 ft) | 5.1 m (16.73 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

| | |
|---|---|
| IVS (Perimeter Protection) | Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human), stay detection, loitering detection |
| SMD | SMD 4.0 |
| Quick Pick | With AI NVR, quickly pick up the human/vehicle targets that users are interested in from SMD events. |
| Smart Search | Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos. |
| EPTZ | Enlarge and track the targets of intelligent alarms |

### Video

| | |
|---|---|
| Video Compression | H.265; H.264; H.264H; H.264B; MJPEG (Only supported by the sub stream) |
| AI Coding | AI H.265; AI H.264<br>*Includes smart codec technology, Smart H.265+ and Smart H.264+ |
| Video Frame Rate | Main stream: 4096 × 1860@(1–20 fps )<br>Sub stream: 1200 × 530@(1–20 fps)<br>Third stream: 1920 × 860@(1–20 fps)<br>*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 | 8M (4096 × 1860); 6M (3632 × 1632); 4M (3040 × 1368); 1200 × 530; 1920 × 860; 960 × 432; D1 (704 × 576/704 × 480) |
| Bit Rate Control | CBR/VBR |
| Video Bit Rate | H.264: 6 kbps –16384 kbps<br>H.265: 6 kbps –16384 kbps |
| Day/Night | Auto(ICR)/Color/B/W |
| BLC | Yes |
| HLC | Yes |
| WDR | 120 dB |
| Scene Self-adaptation (SSA) | Yes |
| White Balance | Auto; natural; street lamp; outdoor; manual; regional custom |
| Gain Control | Auto |
| Noise Reduction | 3D NR |
| Motion Detection | OFF/ON (4 areas, rectangular) |
| Region of Interest (RoI) | Yes (4 areas) |
| Privacy Masking | 4 areas |
| Defog | Yes |

### Audio

| | |
|---|---|
| Built-in MIC | Yes, built-in dual Mic |
| Built-in speaker | Yes, built-in speaker |
| Audio Compression | G.711a; G.711Mu; PCM; G.726; G.723 |

### Alarm

| | |
|---|---|
| Alarm Event | No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; stay detection; loitering detection; scene changing; audio detection; voltage detection; external alarm; SMD; security exception |

### Network

| | |
|---|---|
| Network Port | RJ-45 (10/100 Base-T) |
| SDK and API | Yes |
| Security | 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 |

| | |
|---|---|
| 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; PPPoE; SNMP; P2P |
| Interoperability | ONVIF (Profile S/Profile G/Profile T); CGI |
| User/Host | 20 (Total bandwidth: 64 M) |
| Storage | FTP; SFTP; Micro SD card (support max. 512 GB); NAS |
| Browser | IE: IE 8 and later<br>Chrome<br>Firefox |
| Management Software | Smart PSS Lite; DSS; DMSS |
| Mobile Client | iOS; Android |

## Certification

| | |
|---|---|
| Certifications | CE-LVD: EN62368-1<br>CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU |

## Port

| | |
|---|---|
| Audio Input | 1 channel (RCA port) |
| Audio Output | 1 channel (RCA port) |
| Alarm Input | 1 channel in: wet contact, 5 mA 3 V–5 VDC |
| Alarm Output | 1 channel out: wet contact, 300 mA 12 VDC |

## Power

| | |
|---|---|
| Power Supply | 12 VDC (±30%); PoE (802.3af) |
| Power Consumption | Basic: 3.95 W (12 VDC); 4.95 W (PoE)<br>Max. (H.265+WDR+ warm light+siren and light active deterrence + intelligence on): 8.7 W (12 VDC); 10.85 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) |
| Protection | IP67 |

## Structure

| | |
|---|---|
| Casing | Metal |
| Product Dimensions | Φ122 mm × 135.2 mm (Φ4.80" × 5.32" ) |
| Net Weight | 990 g (2.18 lb) |
| Gross Weight | 1150 g (2.54 lb) |

## Ordering Information

| Type | Model | Description |
|---|---|---|
| 8MP Camera | DH-IPC-PDW3849-A180-AS-PV | 2x4MP TiOC Duo Splicing Fixed-focal Eyeball WizSense Network Camera |
| | IPC-PDW3849-A180-AS-PV | 2x4MP TiOC Duo Splicing Fixed-focal Eyeball WizSense Network Camera |
| Accessories (Optional) | PFA137 | Junction Box |
| | PFB205W-E | Wall Mount Bracket |
| | PFB220C | Ceiling Mount Bracket |
| | PFA109 | Mount Adapter |
| | PFA152-E | Pole Mount Bracket |
| | PFM900-E | Integrated Mount Tester |
| | TF-P100 | MicroSD Memory Card |
| | PFM321D | 12 VDC 1A Power Adapter |

## Accessories

Optional:



PFA137
Junction Box



PFB205W-E
Wall Mount Bracket



PFB220C
Ceiling Mount Bracket



PFA109
Mount Adapter



PFA152-E
Pole Mount Bracket



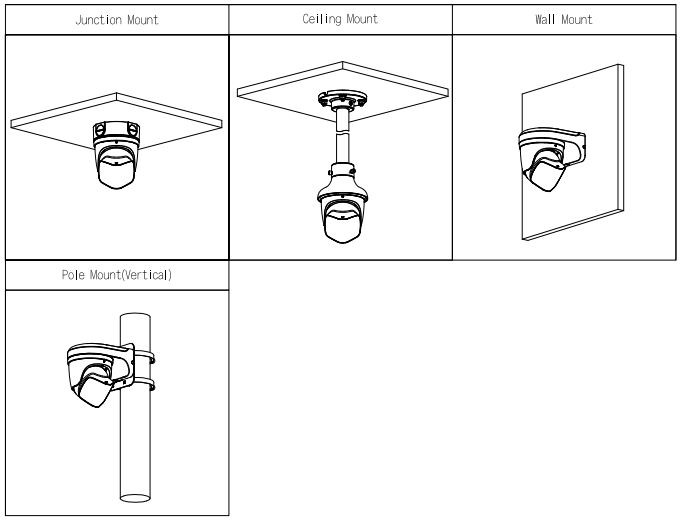
PFM900-E
Integrated
Mount Tester



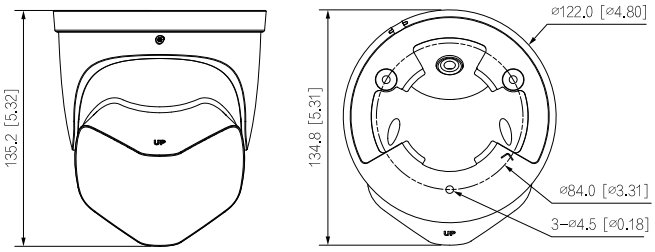
TF-P100
MicroSD
Memory Card



PFM321D
12V DC 1A
Power Adapter




## Dimensions (mm[inch])




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