

# DH-IPC-HDW5241H-ASE-PV

## 2MP Fixed-focal Eyeball WizMind Network Camera



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

With starlight solution and deep learning algorithm, Dahua WizMind 5 Series network camera has various intelligent functions, including face capture, perimeter protection and people counting, which greatly improve the accuracy of video analysis. The series camera supports dust-proof function, waterproof function and vandal-proof function, complying with the standards of IP67 and IK10 (Supported by some select models).

### Functions

#### Smart Dual Illumination

Dahua Smart Dual Illuminators technology adopts deep learning algorithm to detect targets. Usually, the IR illuminator is on at night; when the target appears in the monitoring area, the white 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 white light is off and the IR illuminator is on, which reduces light pollution efficiently.

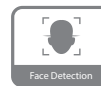
#### Face Detection

Dahua Face Detection technology can detect the face in the image. With deep learning algorithm, the technology supports detecting, tracking, capturing and selecting the best face image, and then outputs face snapshot.

#### 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, fast moving, parking detection, loitering detection and gathering detection) are largely reduced.

- 2MP 1/2.8" CMOS image sensor, low illuminance, high definition image
- Outputs max. 2MP (1920 × 1080)@30 fps
- H.265 codec, high compression rate, ultra-low bit rate
- Built-in efficient warm light and IR LED, and the Max. IR distance is 50 m
- ROI, SMART H.264 +/H.265+, AI H.264/H.265, flexible coding, applicable to various bandwidth and storage environments
- Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes
- Sound and light alarm linkage. When the alarm is triggered, the sound and light will be linked
- Supports one-tap disarming. You can disarm the events of alarm output, sending email, audio, and light during the configured period
- Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card, built-in Mic and speaker, support two-way talk.
- 12V DC/PoE power supply, easy for installation
- ePoE, IP67 protection
- SMD 3.0



#### People Counting

With deep learning algorithm, Dahua People Counting technology can track and process moving human body targets to realize the accurate statistics of enter No., leave No., and In Area No. Working with management platform, it outputs yearly/monthly/daily reports to meet your requirements.

#### 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.

#### 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.

#### 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, 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  $\pm 30\%$  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" CMOS                                                                               |
| Max. Resolution            | 1920 (H) $\times$ 1080 (V)                                                                |
| ROM                        | 128 MB                                                                                    |
| RAM                        | 512 MB                                                                                    |
| Scanning System            | Progressive                                                                               |
| Electronic Shutter Speed   | Auto/Manual 1/3 s–1/100,000 s                                                             |
| Min. Illumination          | 0.002 Lux@F1.6 (Color, 30 IRE)<br>0.0002 Lux@F1.6 (B/W, 30 IRE)<br>0 Lux (Illuminator on) |
| S/N Ratio                  | > 56 dB                                                                                   |
| Illumination Distance      | 50 m (164.0 ft)                                                                           |
| Illuminator On/Off Control | Auto/Manual                                                                               |
| Illuminator Number         | 2 (IR light); 2 (warm light)                                                              |
| Pan/Tilt/Rotation Range    | Pan: 0°–360°<br>Tilt: 0°–78°<br>Rotation: 0°–360°                                         |

### Lens

|                      |                                                                                                                                                                                                                   |                   |                   |                  |                 |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------|------------------|-----------------|
| Lens Type            | Fixed-focal                                                                                                                                                                                                       |                   |                   |                  |                 |
| Lens Mount           | M12                                                                                                                                                                                                               |                   |                   |                  |                 |
| Focal Length         | 2.8 mm; 3.6 mm; 6 mm                                                                                                                                                                                              |                   |                   |                  |                 |
| Max. Aperture        | 2.8 mm: F1.6<br>3.6 mm: F1.6<br>6 mm: F1.6                                                                                                                                                                        |                   |                   |                  |                 |
| Field of View        | 2.8 mm: Horizontal 106° $\times$ Vertical 56° $\times$ Diagonal 127°<br>3.6 mm: Horizontal 88° $\times$ Vertical 46° $\times$ Diagonal 104°<br>6.0 mm: Horizontal 54° $\times$ Vertical 29° $\times$ Diagonal 63° |                   |                   |                  |                 |
| Iris Control         | Fixed                                                                                                                                                                                                             |                   |                   |                  |                 |
| Close Focus Distance | 2.8 mm: 0.6 m (2.0 ft)<br>3.6 mm: 1.0 m (3.3 ft)<br>6.0 mm: 2.5 m (8.2 ft)                                                                                                                                        |                   |                   |                  |                 |
| DORI Distance        | Lens                                                                                                                                                                                                              | Detect            | Observe           | Recognize        | Identify        |
|                      | 2.8mm                                                                                                                                                                                                             | 43.9 m (144 ft)   | 17.5 m (57.4 ft)  | 8.8 m (28.9 ft)  | 4.4 m (14.4 ft) |
|                      | 3.6mm                                                                                                                                                                                                             | 55.2 m (181.1 ft) | 22.1 m (72.5 ft)  | 11 m (36.1 ft)   | 5.5 m (18.0 ft) |
|                      | 6mm                                                                                                                                                                                                               | 82.8 m (271.1 ft) | 33.1 m (108.6 ft) | 16.6 m (54.5 ft) | 8.3 m (27.2 ft) |

## Smart Event

|          |                                  |
|----------|----------------------------------|
| IVS      | Abandoned object; missing object |
| Heat Map | Yes                              |

## Professional, intelligent

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IVS (Perimeter Protection) | Intrusion; tripwire; fast moving (the three functions support the classification and accurate detection of vehicle and human); loitering detection; people gathering; parking detection                                                                                                                                                                                                                                                                                                             |
| Face Detection             | Face detection; track; snapshot; snapshot optimization; optimal face snapshot upload; face enhancement; face exposure; face attributes extraction including 6 attributes (gender, age, glasses, expressions, mask, and beard) and 8 expressions (angry, sad, disgusted, scared, surprised, calm, happy, confused); face snapshot set as face or one-inch photo; snapshot strategies (real-time snapshot, quality priority and optimization snapshot); face angle filter; optimization time setting. |
| People Counting            | Support the counting of enter number, leave number and pass number, and displaying and outputting yearly/monthly/daily reports<br>Support the counting of number in area, and 4 rules configuration. Count number of people and stay time, and link alarm<br>Support queue management, and 4 rules configuration. Count number of people and stay time, and link alarm                                                                                                                              |
| 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         | Main stream: 1920 $\times$ 1080 (1 fps–25/30 fps)<br>Sub stream: D1 (1 fps–25/30 fps)<br>Third stream: 1080p (1 fps–25/30 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               | 1080p (1920 $\times$ 1080); 1.3M (1280 $\times$ 960); 720p (1280 $\times$ 720); D1 (704 $\times$ 576/704 $\times$ 480); VGA (640 $\times$ 480); CIF (354 $\times$ 288/354 $\times$ 240)                                                                                         |
| Bit Rate Control         | CBR/VBR                                                                                                                                                                                                                                                                         |
| Video Bit Rate           | H.264: 32 kbps–8192 kbps<br>H.265: 12 kbps–8192 kbps                                                                                                                                                                                                                            |
| Day/Night                | Auto (ICR)/Color/B/W                                                                                                                                                                                                                                                            |
| BLC                      | Yes                                                                                                                                                                                                                                                                             |
| HLC                      | Yes                                                                                                                                                                                                                                                                             |
| WDR                      | 120 dB                                                                                                                                                                                                                                                                          |
| 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              |
| Image Rotation     | 0°/90°/180°/270° |
| Mirror             | Yes              |
| Privacy Masking    | 8 areas          |

#### Audio

|                   |                                    |
|-------------------|------------------------------------|
| Built-in MIC      | Yes                                |
| Audio Compression | PCM; G.711a; G.711Mu; G.726; G.723 |

#### Alarm

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Alarm Event | No SD card; SD card full; SD card error; service life warning; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; fast moving; abandoned object; missing object; loitering detection; people gathering; parking detection; scene changing; audio detection; voltage detection; defocus detection; external alarm; face detection; people counting in area; stay alarm; people counting; people No. exception detection; safety exception; light alarm; sound alarm (21 built-in sounds and custom voices importing) |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### Network

|                     |                                                                                                                                                                                                                                                           |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Network Port        | RJ-45 (10/100 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 |
| 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; Milestone; Genetec                                                                                                                                                                                            |
| User/Host           | 20 (Total bandwidth: 80 M)                                                                                                                                                                                                                                |
| Storage             | FTP; SFTP; Micro SD card (support max. 256 G); NAS                                                                                                                                                                                                        |
| Browser             | IE: IE8; IE9; IE11<br>Chrome<br>Firefox                                                                                                                                                                                                                   |
| Management Software | Smart PSS; DSS; DMSS                                                                                                                                                                                                                                      |
| Mobile Client       | IOS; Android                                                                                                                                                                                                                                              |

#### Mobile Client

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

#### Port

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

#### Power

|                   |                                                                                                                                                                             |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Supply      | DC 12V (±30%)/PoE (802.3af)/ePoE                                                                                                                                            |
| Power Consumption | Basic power consumption: 1.9W (12V DC); 2.2W (PoE)<br>Max. power consumption (WDR + face recognition + light and sound alarm + IR LED intensity): 8.2W (12V DC); 8.5W (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 × 110.9 mm (Φ4.8" × 4.4" ) |
| Net Weight         | 753 g (1.7 lb)                     |
| Gross Weight       | 937 g (2.1 lb)                     |

#### Ordering Information

| Type                   | Model                  | Description                                    |
|------------------------|------------------------|------------------------------------------------|
| 2MP Camera             | DH-IPC-HDW5241H-ASE-PV | 2MP Fixed-focal Eyeball WizMind Network Camera |
|                        | IPC-HDW5241H-ASE-PV    | 2MP Fixed-focal Eyeball WizMind Network Camera |
| Accessories (Optional) | PFA137                 | Junction Box                                   |
|                        | PFB205W                | Wall Mount                                     |
|                        | PFB220C                | Ceiling Mount                                  |
|                        | PFA106                 | Mount Adapter                                  |
|                        | PFA152-E               | Pole Mount                                     |
|                        | PFM321D                | 12V DC 1A Power Adapter                        |
|                        | PFM900-E               | Integrated Mount Tester                        |
|                        | TF-P100                | MicroSD Memory Card                            |

## Accessories

Optional



PFA137  
Junction Box



PFB205W  
Wall Mount



PFB220C  
Ceiling Mount



PFA106  
Mount Adapter



PFA152-E  
Pole Mount



PFM321D  
12V DC 1A Power Adapter



PFM900-E  
Integrated Mount Tester



TF-P100  
MicroSD  
Memory Card

| Junction Mount       | Wall Mount | Ceiling Mount |
|----------------------|------------|---------------|
|                      |            |               |
| Pole Mount(Vertical) |            |               |
|                      |            |               |

## Dimensions (mm[inch])

