# DH-IPC-HDW2449T-S-PV

## 4MP Smart Dual Light Active Deterrence Fixed-focal Eyeball WizSense Network Camera



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

With advanced deep learning algorithm, Dahua WizSense 2 Series network camera supports intelligent functions, such as perimeter protection and smart motion detection. With starlight technology, this series camera provides a better image effect in the condition of low illuminance.

### Functions

**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.

**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 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.

**SMD Plus**

With intelligent algorithm, Dahua Smart Motion Detection technology can categorize the targets that trigger motion detection and filter the motion detection alarm triggered by non-concerned targets to realize effective and accurate alarm.

- 4-MP 1/2.9" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 4 MP (2688 × 1520)@20 fps, and 4 MP (2560 × 1440)@25/30 fps by default.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in IR LED and warm light, and the max. IR illumination distance is 30 m, the max. warm light distance is 30 m.
- ROI, SMART 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.
- Intelligent monitoring: Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human)
- Abnormality detection: Motion detection, video tampering, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection.
- Supports max. 256 G Micro SD card; built-in Mic; built-in speaker; support two-way talk.
- 12 VDC/PoE power supply, easy for installation.
- IP67 protection.
- Sound and light alarm.
- SMD Plus.
- One-tap arming/disarming.




**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.

**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 work normally 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 | 1/2.9" CMOS |
| Max. Resolution | 2688 (H) × 1520 (V) |
| ROM | 128 MB |
| RAM | 128 MB |
| Scanning System | Progressive |
| Electronic Shutter Speed | Auto/Manual 1/3 s–1/100,000 s |
| Min. Illumination | 0.004 lux@F1.0 (Color, 30 IRE)<br>0.0004 lux@F1.0 (B/W, 30 IRE)<br>0 lux (Illuminator on) |
| S/N Ratio | >56 dB |
| Illumination Distance | Up to 30 m (98.43 ft) (IR)<br>Up to 30 m (98.43 ft) (Warm Light) |
| Illuminator On/Off Control | Auto; Manual |
| Illuminator Number | 1 (IR LED); 1 (Warm light) |
| Angle Adjustment | 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 |
| Max. Aperture | F1.0 |
| Field of View | 2.8 mm: H: 101.6°; V: 54.8°; D: 122.1°<br>3.6 mm: H: 84°; V: 45.6°; D: 98.9° |
| Iris Control | Fixed |
| Close Focus Distance | 2.8 mm: 1.4 m (4.59 ft);3.6 mm: 2.0 m (6.56 ft) |

| | Lens | Detect | Observe | Recognize | Identify |
|---|---|---|---|---|---|
| DORI Distance | 2.8 mm | 63.8 m (209.32 ft) | 25.5 m (83.66 ft) | 12.8 m (41.99 ft) | 6.4 m (21.00 ft) |
| | 3.6 mm | 77.8 m (255.25 ft) | 31.1 m (102.03 ft) | 15.6 m (51.18 ft) | 7.8 m (25.59 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) |
| SMD | SMD Plus |
| 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 sub stream) |
| Smart Codec | Smart H.265+; Smart H.264+ |
| Video Frame Rate | Main stream: 2688 × 1520@(1–20 fps)/2560 × 1440@(1–25/30 fps);<br>sub stream: 704 × 576@(1–25 fps)/704 × 480@(1–30 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 | 2 streams |
| Resolution | 4M (2688 × 1520); 3.6M (2560 × 1440); 3M (2304 × 1296); 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240) |
| Bit Rate Control | CBR/VBR |
| Video Bit Rate | H.264: 32 kbps–6144 kbps<br>H.265: 12 kbps–6144 kbps |
| Day/Night | Auto(ICR)/Color/B/W |
| BLC | Yes |
| HLC | Yes |
| WDR | 120 dB |
| 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 |
| Image Rotation | 0°/90°/180°/270° (Support 90°/270° with 2688 × 1520 resolution and lower) |
| Mirror | Yes |
| Privacy Masking | 4 areas |

### Audio

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

### Alarm

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

### Network

| | |
|---|---|
| Network Port | RJ-45 (10/100 Base-T) |
| SDK and API | Yes |
| Network Protocol | IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP ; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; NTP; Multicast; ICMP; IGMP; NFS; P2P; auto registration |
| Interoperability | ONVIF (Profile S & Profile G & Profile T); CGI |
| User/Host | 6 (Total bandwidth: 36 M) |
| Storage | FTP; SFTP; Micro SD card (support max. 256 GB) |
| Browser | IE; Chrome; Firefox |
| Management Software | Smart PSS Lite; DSS; DMSS |

| | |
|---|---|
| Mobile Client | iOS;Android |
| 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;<br>CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU |

### Power

| | |
|---|---|
| Power Supply | 12 VDC/PoE |
| Power Consumption | Basic: 2 W (12 VDC), 2.6 W (PoE)<br>Max. (H.265 + intelligence on + WDR + IR intensity + warm light deterrence + speaker): 8.6 W (12 VDC), 10.1 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 | IP67 |

### Structure

| | |
|---|---|
| Casing Material | Inner core: Metal;<br>Cover: Plastic |
| Product Dimensions | 103.5 mm × Φ109.9 mm (4.07" × Φ4.33") |
| Net Weight | 0.39 kg (0.86 lb) |
| Gross Weight | 0.57 kg (1.26 lb) |

## Ordering Information

| Type | Model | Description |
|---|---|---|
| 4MP Camera | DH-IPC-HDW2449T-S-PV | 4MP Smart Dual Light Active Deterrence Fixed-focal Eyeball WizSense Network Camera |
| Accessories (Optional) | PFA13G | Junction Box |
| | PFB205W-E | Wall Mount Bracket |
| | PFA152-E | Pole Mount Bracket |
| | PFA109 | Mount Adapter |
| | PFB220C | Ceiling Mount Bracket |
| | PFM321D | 12 VDC 1A Power Adapter |
| | PFM900-E | Integrated Mount Tester |
| | TF-P100 | MicroSD Memory Card |

## Accessories

Optional:



PFA13G
Junction Box



PFB205W-E
Wall Mount Bracket



PFA152-E
Pole Mount Bracket



PFA109
Mount adapter



PFB220C
Ceiling Mount Bracket



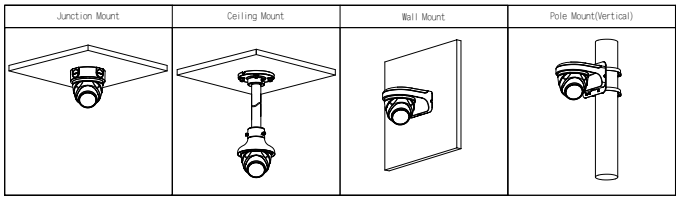
PFM321D
12 VDC 1 A Power Adapter



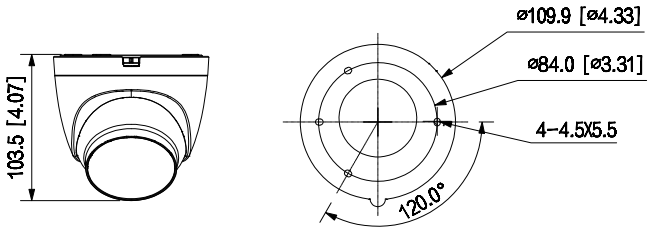
PFM900-E
Integrated Mount Tester



TF-P100
MicroSD Memory Card




## Dimensions (mm[inch])




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