

# DH-IPC-PTS2449C-4E3Z-S-PV-PRO

4MP+2MP WizColor Vari-focal Network PT Camera



WizSense

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

### WizColor Technology

Dahua WizColor Technology seamlessly combines with the powerful AI-ISP, large pixel size sensor and large aperture in cameras. This unique integration enables cameras to effortlessly capture high-quality images with vibrant colors during nighttime scenarios, ensuring fine details are preserved and minimizing motion blur. Unlike traditional self-illuminating cameras, Dahua WizColor Technology maximizes the utilization of weak light sources, such as moonlight and city lights reflected in the sky, delivering captivating full-color images of the entire scene. It also ensures that monitoring distances are not compromised at night due to limited illumination ranges, facilitating full-color image capture even over long distances.

- Displays videos in two channels at the same time
- 1/1.8" 4Megapixel CMOS and 1/2.8" 2Megapixel CMOS
- WizColor Technology
- Max. 25/30 fps@4MP and Max. 25/30 fps@2MP
- 6x Hybrid Zoom
- H.265 Encoding
- SMD 3.0
- Perimeter Protection
- Two-way Talk
- Auto Tracking Lite
- Tour



### AI-ISP

With AI ISP technology, the camera is able to easily adapt to scenes, producing high quality images that reveal the fine details of targets.

### Tap and View

Easy to use, you can tap on any spot in the live video feed from the fixed lens, allowing the PT lens to instantly rotate and focus on your selected area, delivering a clear close-up view of the target.

### SMD 3.0

Empowered by deep-learning algorithms, Dahua SMD filters out motion detection alarms triggered by targets that are not a concern. It quickly recognizes humans and vehicles, triggering alarms when an intrusion occurs.

### Smart Hybrid Zoom

By integrating multiple sensors with various fixed lenses, this camera delivers exceptional zoom performance. When the built-in AI algorithm detects a human, the lens automatically zooms in, tracks the target's movement, and effortlessly captures both close-up and distant scenes for precise monitoring.

## Technical Specification

### Camera

|                            |  |
|----------------------------|--|
| Image Sensor               | Fixed Lens: 1/1.8" CMOS<br>PT Lens: 1/2.8" CMOS  |
| Pixel                      | Fixed Lens: 4 MP<br>PT Lens: 2 MP  |
| Max. Resolution            | Fixed Lens: 2688 (H) × 1520 (V)<br>PT Lens: 1920 (H) × 1080 (V)  |
| ROM                        | 256 MB   |
| RAM                        | 512 MB   |
| Electronic Shutter Speed   | 1 s–1/100,000 s  |
| Scanning System            | Progressive  |
| Min. Illumination          | Fixed Lens:<br>0.0005 lux@F1.0 (Color, 30 IRE)<br>0 lux (Illuminator on)<br>PT Lens:<br>0.0005 lux@F1.0(Color, 30 IRE)<br>0 lux (Illuminator on) |
| Illumination Distance      | Fixed Lens: 30 m (98.43 ft)(Warm light)<br>PT Lens: 50 m (164.04 ft) (Warm light)  |
| Illuminator On/Off Control | Fixed Lens: Manual; Auto; Off<br>PT Lens: Manual; Auto; Off  |
| Illuminator Number         | Fixed Lens: 4 (Warm light)<br>PT Lens: 4 (Warm light)  |

### Lens

|   |  |                   |                   |                 |                 |
|---|--|-------------------|-------------------|-----------------|-----------------|
| Focal Length  | Fixed Lens: 2.8 mm<br>PT Lens: 3.6 mm; 8.4 mm  |                   |                   |                 |                 |
| Max. Aperture   | Fixed Lens: F1.0<br>PT Lens: 3.6 mm: F1.0; 8.4 mm: F1.0  |                   |                   |                 |                 |
| Field of View   | Fixed Lens: H:112 °; V: 60°; D: 134°<br>PT Lens: H: 81.5° – 15.1°; V: 44.3° – 8.4°; D: 96.3° – 17.88°                                  |                   |                   |                 |                 |
| Hybrid Zoom   | 6×   |                   |                   |                 |                 |
| Close Focus Distance  | Fixed Lens: 2.8 mm<br>PT Lens: 3.6 mm; 8.4 mm: Fixed Lens: 1.8 m (5.91 ft)<br>PT Lens: 3.6 mm: 1.7 m (5.58 ft); 8.4 mm: 6 m (19.69 ft) |                   |                   |                 |                 |
| Iris Control  | Fixed Lens: Fixed Iris<br>PT Lens: Fixed Iris  |                   |                   |                 |                 |
| DORI Distance   | Lens   | Detect            | Observe           | Recognize       | Identify        |
|   | Fixed Lens: 2.8 mm<br>PT Lens: 3.6 mm; 8.4 mm  | 120 m (126.71 ft) | 47.4 m (50.07 ft) | 24 m (25.33 ft) | 12 m (12.66 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 |  |                   |                   |                 |                 |

|               |   |
|---------------|---|
| DORI Distance | not reflect intelligent function distances. For intelligent function distances, refer to installation and commissioning manual/project design tool. |
|---------------|---|

### PTZ

|                      |  |
|----------------------|--|
| Pan/Tilt Range       | Fixed Lens: Pan: 0° to 285°; Tilt: -7° to +20° (manual)<br>PT Lens: Pan: 0° to 350°; Tilt: 0° to +90° (Electric)       |
| Manual Control Speed | Pan: 40°/s; Tilt: 40°/s  |
| Preset Speed         | Pan: 40°/s; Tilt: 40°/s  |
| Preset               | 80   |
| Tour                 | 8 (up to 6 presets per tour; the stay duration for each preset is 60 to 360 sec and tour interval is 900 to 3,600 sec) |
| Power-off Memory     | Yes  |
| Idle Motion          | Preset;Tour;home position(only supports setting on DMSS)   |
| PTZ Locked           | YES  |

### Smart Event

|                   |                     |
|-------------------|---------------------|
| IVS               | Tripwire; Intrusion |
| Human Detection   | Yes                 |
| Vehicle Detection | Yes                 |

### Intelligence

|                |   |
|----------------|---|
| Smart Tracking | Auto Tracking Lite; Linkage Tracking Lite |
| SMD            | SMD 3.0                                   |

### Active Deterrence

|               |   |
|---------------|---|
| Light Warning | Warm light warning; Flash duration: 5 s–30 s; Flash frequency: high, medium, low      |
| Sound Warning | Offers 3 sound alarm. Sound can be set from 0%–100%. Play times can be set from 1-10. |

### Video

|                      |  |
|----------------------|--|
| Video Compression    | Smart H.265+;H.265;Smart H.264+;H.264B;H.264M;H.264H;MJPEG(Sub Stream 1)   |
| Streaming Capability | 2 streams  |
| Resolution           | Fixed Lens: 4M (2688 × 1520); 4M (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)<br>PT Lens: 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240) |
| Video Frame Rate     | Fixed Lens:<br>Main stream: 4M/3M/1080p/1.3M/720p@(1–25/30 fps)<br>Sub stream: D1/VGA/CIF@(1–25/30 fps)<br>PT Lens:<br>Main stream: 1080p/1.3M/720p@(1–25/30 fps)<br>Sub stream: D1/VGA/CIF@(1–25/30 fps)  |
| Bit Rate Control     | CBR/VBR  |

|                          |   |
|--------------------------|---|
| Video Bit Rate           | Fixed Lens:<br>H264: 96 kbps–8192 kbps<br>H265: 38 kbps–8192 kbps<br>PT Lens:<br>H264: 64 kbps–8192 kbps<br>H265: 25 kbps–7424 kbps |
| Day/Night                | Fixed Lens: Color<br>PT Lens: Color   |
| BLC                      | YES   |
| WDR                      | Fixed Lens: 120dB<br>PT Lens: DWDR  |
| HLC                      | YES   |
| White Balance            | Auto; indoor; outdoor; tracking; manual; sodium lamp;<br>natural light; street lamp   |
| Gain Control             | Auto; Manual; Gain Priority   |
| Noise Reduction          | 2D NR; 3D NR  |
| Motion Detection         | Yes   |
| Region of Interest (RoI) | Yes   |
| Defog                    | Fixed Lens: Electronic<br>PT Lens: Electronic   |
| Image Rotation           | 180°  |
| S/N Ratio                | ≥55 dB  |

## Audio

|                   |                    |
|-------------------|--------------------|
| Audio Compression | PCM; G711A; G711Mu |
| Built-in MIC      | Yes                |
| Built-in Speaker  | Yes                |

## Network

|                     |  |
|---------------------|--|
| Network Port        | RJ-45 (10/100 Base-T)  |
| Network Protocol    | HTTP;HTTPS;TCP/<br>IP;IPv4;RTSP;UDP;NTP;DHCP;DNS;DDNS;IPv6;SSL;QoS;F<br>TP;ICMP;IGMP;ARP;RTCP;RTP;RTMP                   |
| Interoperability    | ONVIF (Profile S & Profile G & Profile T);CGI;SDK  |
| Streaming Method    | Unicast/Multicast  |
| User/Host           | 20 (total bandwidth: 64 M)   |
| Storage             | Micro SD card (Up to 512 GB); FTP  |
| Browser             | IE 9 and later versions<br>Chrome 41 and later versions<br>Firefox 50 and later versions<br>Safari 10 and later versions |
| Management Software | DMSS   |
| Mobile Client       | iOS;Android  |

## Function

|                      |     |
|----------------------|-----|
| Abnormal Sound Alarm | Yes |
|----------------------|-----|

## Certification

|                |    |
|----------------|----|
| Certifications | CE |
|----------------|----|

## Port

|             |                          |
|-------------|--------------------------|
| Audio Input | 1 channel (built-in mic) |
|-------------|--------------------------|

|               |  |
|---------------|--|
| Audio Output  | 1 channel (built-in speaker)   |
| Alarm Linkage | Capture; recording; audio; light   |
| Alarm Event   | Motion/Tampering detection; audio detection; network<br>disconnection detection; IP conflict detection; memory<br>card state detection; memory space detection |

## Power

|                   |  |
|-------------------|--|
| Power Supply      | 12 VDC, 1.5A ± 25%<br>PoE ( 802.3af )  |
| Power Consumption | Basic: 3.9 W<br>Max. (Basic power consumption + WDR + intelligence<br>on + Warm light on + PTZ operation + Speaker): 12W |
| Power Adapter     | Optional   |

## Environment

|                       |  |
|-----------------------|--|
| Operating Temperature | –30 °C to +55 °C (–22 °F to +131 °F)   |
| Operating Humidity    | ≤95%   |
| Protection            | IP66;TVS 2000 V lightning proof; surge protection;<br>voltage transient protection |

## Structure

|                    |   |
|--------------------|---|
| Product Dimensions | 191 mm × 130 mm × 216.6 mm (7.52" × 5.12" × 8.53")<br>(L × W × H) |
| Net Weight         | 1.1 kg (2.43 lb)  |
| Gross Weight       | 1.7 kg (3.75 lb)  |

## Filter

|         |  |
|---------|--|
| Remarks | The precision of the presets for PTZ cameras might<br>vary depending on different series. For scenes with high<br>requirements on the precision, contact your local sales<br>representative for assistance with selecting the model. |
|---------|--|

## Ordering Information

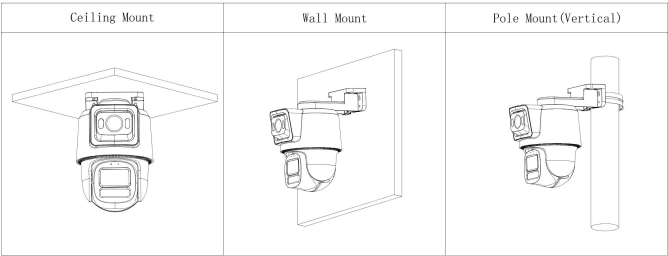
| Type                   | Model                             | Description                                       |
|------------------------|-----------------------------------|---|
| IP CAMERA              | DH-IPC-PTS2449C-4E3Z-S-<br>PV-PRO | 4MP+2MP WizColor Vari-<br>focal Network PT Camera |
| Accessories (Optional) | DH-PFA2590                        | Pole Mount Bracket                                |

## Accessories

Optional:



DH-PFA2590  
Pole Mount Bracket



Dimensions (mm[inch])

