

# DH-IPC-HDW3541T-ZAS

## 5MP IR Vari-focal Eyeball WizSense Network 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.

- 5MP, 1/2.7" CMOS image sensor, low illuminance, high image definition
- Outputs max. 5MP (2592 × 1944) @20 fps, and supports 4MP (2688 × 1520) @25/30 fps
- H.265 codec, high compression rate, low bit rate
- Built-in IR LED, max. IR distance: 40 m
- ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments
- Rotation mode, WDR, 3D DNR, HLC, BLC, digital watermarking, applicable to various monitoring scenes
- Intelligent detection: Intrusion, tripwire (support the classification and accurate detection of vehicle and human)
- 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, voltage detection
- Supports max. 256 G Micro SD card, built-in Mic
- 12V DC/POE power supply
- IP67 protection
- SMD Plus



### Series Overview

With advanced deep learning algorithm, Dahua WizSense 3 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

#### 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.

#### 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.

#### 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.

#### Starlight

Dahua Starlight technology mainly applies to the environment of low illumination, and it can provide clear colorful video. Even in the environment of min. illumination, the technology can guarantee the good image effect.

#### WDR

With advanced Wide Dynamic Range (WDR) technology, Dahua network camera provides clear details in the environment of strong brightness contrast. The bright and dark area can get clear video even in high brightness environment or with backlight shadow.

#### 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 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               | 1/2.7" 5Megapixel progressive CMOS            |
| Max. Resolution            | 2592 (H) ×1944 (V)                            |
| ROM                        | 128 MB                                        |
| RAM                        | 512 MB                                        |
| Scanning System            | Progressive                                   |
| Electronic Shutter Speed   | Auto/Manual 1/3 s–1/100000 s                  |
| Min. Illumination          | 0.005 Lux@F1.5                                |
| S/N Ratio                  | > 56 dB                                       |
| Illumination Distance      | 40 m (131.2 ft)                               |
| Illuminator On/Off Control | Auto/Manual                                   |
| Illuminator Number         | 2 (IR LED)                                    |
| Pan/Tilt/Rotation Range    | Pan: 0°–360°; Tilt: 0°–78°; Rotation: 0°–360° |

### Lens

|                      |                                                                |                       |                      |                      |                     |
|----------------------|----------------------------------------------------------------|-----------------------|----------------------|----------------------|---------------------|
| Lens Type            | Motorized vari-focal                                           |                       |                      |                      |                     |
| Mount Type           | φ14                                                            |                       |                      |                      |                     |
| Focal Length         | 2.7 mm–13.5 mm                                                 |                       |                      |                      |                     |
| Max. Aperture        | F1.5                                                           |                       |                      |                      |                     |
| Field of View        | Horizontal: 99°–26°<br>Vertical: 72°–20°<br>Diagonal: 133°–33° |                       |                      |                      |                     |
| Iris Type            | Fixed                                                          |                       |                      |                      |                     |
| Close Focus Distance | 0.8 m (2.6 ft)                                                 |                       |                      |                      |                     |
| DORI Distance        | Lens                                                           | Detect                | Observe              | Recognize            | Identify            |
|                      | W                                                              | 64.0 m<br>(210.0 ft)  | 25.6 m<br>(84.0 ft)  | 12.8 m<br>(42.0 ft)  | 6.4 m<br>(21.0 ft)  |
|                      | T                                                              | 222.0 m<br>(728.3 ft) | 88.8 m<br>(291.3 ft) | 44.4 m<br>(145.7 ft) | 22.2 m<br>(72.8 ft) |

### Professional, Intelligent

|                      |                                                                                                                 |
|----------------------|-----------------------------------------------------------------------------------------------------------------|
| Perimeter Protection | Tripwire; intrusion (Recognition of human and vehicle)                                                          |
| Intelligent 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 (2592 × 1944@1–20 fps)<br>(2688 × 1520@1–25/30 fps)<br>sub stream (704 × 576@1–25 fps/704 × 480@1–30 fps)<br>third stream (1280 × 720@1–25/30 fps)                        |
| Stream Capability | 3 streams                                                                                                                                                                             |
| Resolution        | 5M (2592 × 1944); 4M (2688 × 1520); 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: 3 Kbps–8192 Kbps<br>H.265: 3 Kbps–8192 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 DNR                                                                     |
| 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 1920 × 1080 resolution and lower.) |
| Mirror                  | Yes                                                                        |
| Privacy Masking         | 4 areas                                                                    |

### Audio

|                   |                            |
|-------------------|----------------------------|
| Built-in MIC      | Yes                        |
| Audio Compression | G.711a; G.711Mu; G726; AAC |

### Alarm

|             |                                                                                                                                                                                                                                                                                       |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Alarm Event | No SD card; SD card full; SD card error; less service time of SD card (smart card supports); network disconnection; IP conflict; illegal access; voltage detection; security exception; motion detection; video tampering; scene changing; intensity change; tripwire; intrusion; SMD |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Network

|                       |                                                                                                                                          |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Network               | RJ-45 (10/100 Base-T)                                                                                                                    |
| SDK and API           | Yes                                                                                                                                      |
| Protocol              | IPv4;IPv6;HTTP;HTTPS;TCP;UDP;ARP;RTP;RTSP;RTCP; RTMP;SMTP;FTP;SFTP;DHCP;DNS;DDNS;QoS;UPnP;NTP; Multicast;ICMP;IGMP;NFS;PPPoE;802.1x;SNMP |
| Interoperability      | ONVIF(Profile S/Profile G);CGI;P2P;Milestone;Genetec                                                                                     |
| Scene Self-adaptation | Yes                                                                                                                                      |
| User/Host             | 20 (Total bandwidth: 64 M)                                                                                                               |
| Storage               | FTP; SFTP; Micro SD Card (support max. 256 G); Dahua Cloud; NAS                                                                          |
| Browser               | IE: IE8, IE9, IE11<br>Chrome<br>Firefox                                                                                                  |
| Management Software   | Smart PSS, DSS, DMSS                                                                                                                     |
| Mobile Phone          | IOS; Android                                                                                                                             |

### Certification

|                |                                                                                                                                                                        |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Certifications | CE-LVD: EN60950-1<br>CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU<br>FCC: 47 CFR FCC Part 15, Subpart B<br>UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07 |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Power

|                   |                      |
|-------------------|----------------------|
| Power Supply      | 12V DC/PoE (802.3af) |
| Power Consumption | <8.0W                |

## Environment

|                      |                                                |
|----------------------|------------------------------------------------|
| Operating Conditions | -30°C to +60°C (-22°F to +140°F)/less than 95% |
| Storage Conditions   | -40°C to +60°C (-40°F to +140°F)               |
| Protection Grade     | IP67                                           |

## Structure

|              |                                   |
|--------------|-----------------------------------|
| Casing       | Metal                             |
| Dimensions   | 108.3 mm × Φ122 mm (4.3" × Φ4.8") |
| Net Weight   | 685g (1.5 lb)                     |
| Gross Weight | 828 g (1.8 lb)                    |

## Ordering Information

| Type                   | Part Number          | Description                                            |
|------------------------|----------------------|--------------------------------------------------------|
| 5MP Camera             | DH-IPC-HDW3541TP-ZAS | 5MP IR Vari-focal Eyeball WizSense Network Camera,PAL  |
|                        | DH-IPC-HDW3541TN-ZAS | 5MP IR Vari-focal Eyeball WizSense Network Camera,NTSC |
| Accessories (optional) | PFA130-E             | Junction Box                                           |
|                        | PFB203W              | Wall mount                                             |
|                        | PFA106               | Mount adapter                                          |
|                        | PFB220C              | Ceiling mount                                          |
|                        | PFA152-E             | Pole Mount                                             |
|                        | PFM321D              | DC12V1A Power adapter                                  |
|                        | LR1002-1ET/1EC       | Single-port long reach ethernet over coax extender     |
|                        | PFM900-E             | Integrated mount tester                                |
|                        | PFM114               | TLC SD card                                            |

## Accessories

### Optional:



PFA130-E  
Junction Box



PFB203W  
Wall Mount



PFA106  
Mount Adapter



PFB220C  
Ceiling Mount



PFA152-E  
Pole Mount



PFM321D  
DC12V1A Power  
Adapter



LR1002-1ET/1EC  
Single-port long  
reach ethernet over  
coax extender



PFM900-E  
Integrated Mount  
tester



PFM114  
TLC SD card

| Junction Mount | Wall Mount | Ceiling Mount  | Pole Mount       |
|----------------|------------|----------------|------------------|
| PFA130-E       | PFB203W    | PFA106+PFB220C | PFB203W+PFA152-E |
|                |            |                |                  |

## Dimensions (mm[inch])

