

DH-IPC-HDW4541T-ZS

5MP IR Vari-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

Powered by its advanced deep learning algorithms, Dahua WizMind 4 Series cameras are ahead of their time advancing functions such as perimeter protection, smart motion detection and face detection. With its Starlight sensors and large aperture lenses, cameras in this series deliver excellent image quality even in environments with low illuminance. This series is IP67-rated and IK10-rated (depending on the model) giving you the confidence and precision you are looking for in a camera.

Functions

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.

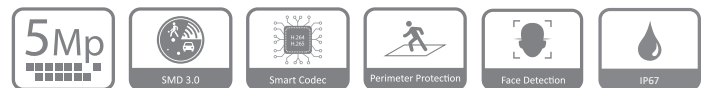
SMD 3.0

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.

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) are largely reduced.

- 5MP 1/2.7" CMOS image sensor, excellent low luminance performance and high definition of images.
- Outputs max. 5MP (2592 × 1944) @25/30 fps
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in IR LED, max. IR distance: 40 m
- ROI, SMART H.264 +/-H.265+, AI H.264/H.265, flexible coding, applicable to various bandwidth and storage
- Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes.
- Supports the AFSA (Anti-flicker Self-adaption) function, which automatically eliminates flicker.
- Intelligent detection: Intrusion, tripwire (support the classification and accurate detection of vehicle and human); face detection.
- Abnormality detection: Motion detection, privacy masking, scene changing, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection.
- max. 256 G Micro SD card. built-in Mic
- 12 VDC/PoE power supply, easy for installation.
- IP67, protection
- SMD 3.0



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.

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 $\pm 30\%$ (for some power supplies) input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

Cyber Security

Dahua network cameras employ a series of security technologies, including security authentication and authorization, access control protocols, trusted protection, encrypted transmission and encrypted storage. These technologies improve the camera's defense against external cyber threats and prevent malicious programs from comprising the device.

Technical Specification

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|----------------------------|---|
| Camera | |
| Image Sensor | 1/2.7" CMOS |
| Max. Resolution | 2592 (H) × 1944 (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@F1.5 (Color, 30 IRE) 0.0005 lux@F1.5 (B/W, 30 IRE) 0 lux (Illuminator on) |
| S/N Ratio | >56 dB |
| Illumination Distance | 40 m (131.23 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 | | | |
| Lens Mount | | ϕ14 | | | |
| Focal Length | | 2.7 mm–13.5 mm | | | |
| Max. Aperture | | F1.5 | | | |
| Field of View | | Horizontal: 99°–28° Vertical: 71°–21° Diagonal: 134°–35° | | | |
| Iris Control | | Fixed | | | |
| Close Focus Distance | | 0.8 m (2.62 ft) | | | |
| DORI Distance | Lens | Detect | Observe | Recognize | Identify |
| | W | 64.0 m (209.97 ft) | 25.6 m (83.98 ft) | 12.8 m (41.99 ft) | 6.4 m (21.00 ft) |
| | T | 210.0 m (688.98 ft) | 84.0 m (275.59 ft) | 42.0 m (137.80 ft) | 21.0 m (68.90 ft) |

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| Intelligence | |
| IVS (Perimeter Protection) | Tripwire, intrusion (support the classification and accurate detection of vehicle and human) |
| SMD 3.0 | Less false alarm, longer detection distance |
| Face Detection | Face detection; track; snapshot; snapshot optimization; optimal face snapshot upload; face enhancement; face exposure; face snapshot set as face or one-inch photo; 3 snapshot strategies (real-time snapshot, optimization snapshot, and quality priority); face angle filter; optimization time setting |
| Smart Search | Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos |

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| 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+ |

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|-----------------------------|---|
| AI Coding | AI H.265 AI H.264 |
| Video Frame Rate | Main stream: 2592 × 1944 @ (1–25/30) fps Sub stream 1: 704 × 576 @ (1–25 fps)/704 × 480 @ (1–30 fps) Sub stream 2: 1920 × 1080 @ (1–25/30 fps) Sub stream 3: 1280 × 720 @ (1–25/30 fps) |
| Stream Capability | 4 streams |
| Resolution | 5M (2592 × 1944); 4M (2688 × 1520); 3.6M (2560 × 1440); 3M (2048 × 1536); 3M (2304 × 1296); 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); CIF (352 × 288/352 × 240); VGA (640 × 480) |
| Bit Rate Control | CBR/VBR |
| Video Bit Rate | H.264: 3 kbps–8192 kbps H.265: 3 kbps–8192 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) |
| Image Stabilization | Electronic Image Stabilization (EIS) |
| Region of Interest (RoI) | Yes (4 areas) |
| Smart Illumination | Yes |
| Defog | Yes |
| Image Rotation | 0°/90°/180°/270° (support 90°/270° with 2688 × 1520 resolution and lower) |
| Mirror | Yes |
| Privacy Masking | 4 areas |
| Audio | |
| 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; scene changing; audio detection; voltage detection; defocus detection; face 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; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; SNMP |
| Cyber Security | Video encryption; Firmware encryption; Configuration encryption; Digest; WSE; Account lockout; Security logs; IP/MAC filtering; Generation and importing of X.509 certification; syslog; HTTPS; 802.1x; Trusted boot; Trusted execution; Trusted upgrade |

| | |
|---------------------|---|
| Interoperability | ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone; Genetec |
| User/Host | 20 (Total bandwidth: 64 M) |
| Storage | FTP; SFTP; Micro SD card (support max. 256 G); NAS |
| Browser | IE: IE11 Chrome Firefox |
| Management Software | Smart PSS; DSS; DMSS |
| Mobile Client | iOS; Android |

Certification

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

Power

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|-------------------|---|
| Power Supply | 12 VDC/PoE (802.3af) |
| Power Consumption | Basic: 3.3 W (12 VDC); 4.6 W (PoE) Max. (WDR + IR intensity + Intelligence): 6.8 W (12 VDC); 8.9 W (PoE) |

Environment

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|-----------------------|--|
| Operating Temperature | -30 °C to +60 °C (-22 °F to 140 °F) / Less than 95% RH |
| Storage Temperature | -40 °C to +60 °C (-40 °F to 140 °F) |
| Protection | IP67 |

Structure

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|--------------------|-------------------------------------|
| Casing | Metal |
| Product Dimensions | 108.3 mm × Φ122 mm (4.26" × Φ4.80") |
| Net Weight | 715 g (1.58 lb) |
| Gross Weight | 915 g (2.02 lb) |

Ordering Information

| Type | Model | Description |
|------------------------|---------------------------|--|
| SMP Camera | DH-IPC-HDW4541TP-ZS-27135 | SMP IR Vari-focal Eyeball WizMind Network Camera |
| Accessories (Optional) | PFA137 | Junction Box Bracket |
| | PFA109 | Mount Adapter |
| | PFB220C | Ceiling Mount Bracket |
| | PFB205W | Wall Mount |
| | PFA152-E | Pole Mount |
| | PFM321D | 12 VDC 1 A Power Adapter |
| | LR1002-1ET/1EC | Single-port Long Reach Ethernet Over Coax Extender |
| | PFM900-E | Integrated Mount Tester |
| | TF-P100 | TLC SD Card |

Accessories

Optional:



PFA137
Junction
Box Bracket



PFA109
Mount
Adapter



PFB220C
Ceiling Mount
Bracket



PFM321D
12 VDC 1 A
Power Adapter



PFB205W
Wall
Mount



PFA152-E
Pole
Mount



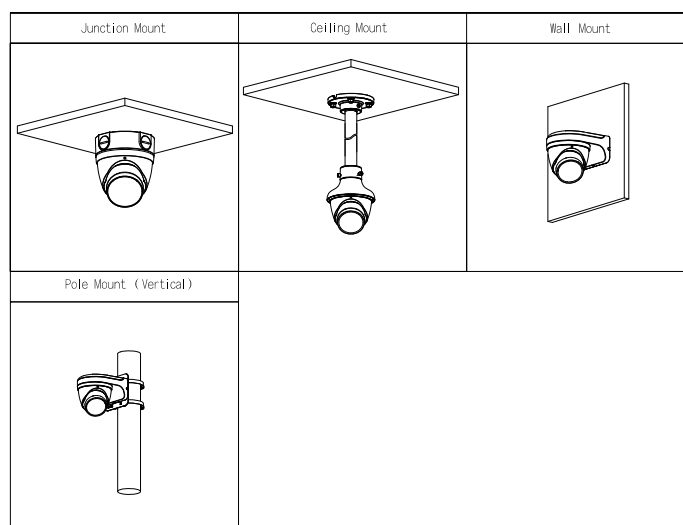
LR1002-1ET/1EC
Single-port Long Reach
Ethernet Over Coax
Extender



PFM900-E
Integrated
Mount Tester



TF-P100
TLC SD
Card



Dimensions (mm[inch])

