

DH-IPC-HDW5541T-ZE

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

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

Face Attributes

With deep learning algorithm, the network camera can recognize face attributes, such as gender, age, expression, glasses, mouth mask, and beard.

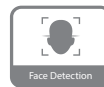
Face Detection

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.

- 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
- 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 NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes
- Supports max. 256 G Micro SD card, built-in Mic
- 12V DC/PoE power supply, ePoE network transmission over long distance, easy for installation
- 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.

ePoE

Dahua's innovative ePoE technology offers a new solution to transmit power and data over long distances between cameras and network switch, allowing more flexible design of surveillance system, improving reliability, reducing installation time and saving money. ePoE technology encompasses pure network systems where a single CAT6 cable can carry signals up to 300 m (984 ft) at 100 Mbps, 800 m (2625 ft) at 10 Mbps.

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 work 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.

Technical Specification

Camera

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|----------------------------|---|
| 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, 30IRE) 0.0005 Lux@F1.5 (B/W, 30IRE) 0 lux (Illuminator on) |
| S/N Ratio | >56 dB |
| Illumination Distance | 40 m (131.2 ft) (IR LED) |
| 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

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|----------------------|--|--------------------|-------------------|-------------------|------------------|
| Lens Type | Motorized vari-focal | | | | |
| Mount Type | φ14 | | | | |
| Focal Length | 2.7 mm-13.5 mm | | | | |
| Max. Aperture | F1.5 | | | | |
| Field of View | 2592 × 1944: Horizontal: 100°–28° Vertical: 72°–21° Diagonal: 133°–35° 2688 × 1520: Horizontal: 104°–29° Vertical: 55°–16° Diagonal: 125°–33° | | | | |
| Iris Type | Auto | | | | |
| Close Focus Distance | 0.8 m (2.6 ft) | | | | |
| DORI Distance | Lens | Detect | Observe | Recognize | Identify |
| | W | 64 m (210.0 ft) | 25.6 m (84.0 ft) | 12.8 m (42.0 ft) | 6.4 m (21.0 ft) |
| | T | 212.0 m (695.5 ft) | 84.8 m (278.2 ft) | 42.4 m (139.1 ft) | 21.2 m (69.6 ft) |

Smart Event

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

Professional, intelligent

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| IVS (Perimeter Protection) | Tripwire; intrusion; fast moving (the three functions support the classification and accurate detection of vehicle and human); loitering detection; people gathering; parking detection |
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| Face Detection | Face detection; track; optimization; snapshot; report high quality picture; face enhancement; face exposure; face attribute extract, 6 attributes and 8 expressions: Gender, age, glasses, expressions (anger, calm, happiness, sadness, disgust, surprise, confusion and fear), mask, beard; face matting setting: face, single inch photo; three snapshot methods: real-time snapshot, optimization snapshot, quality priority; 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. Support the counting of number in area, and 4 rules configuration. Count number of people or stay time and link alarm. Support queue management, and 4 rules configuration. Count number of people or stay time and link alarm |
| Intelligent Search | Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos |

Video

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|--------------------------------------|---|
| Video Compression | H.265; H.264; H.264H; H.264B; MJPEG (only supported by the sub stream) |
| Smart Codec | Smart H265+/H264+ |
| Video Frame Rate | Main stream: 2592 × 1944@(1-20 fps)/2688 × 1520@(1-25/30 fps) /1920 × 1080@(1-50/60 fps) Sub stream:D1 (1 fps–50/60 fps) Third stream: 1080p (1 fps–25/30 fps) *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 | 2592×1944; 2688 × 1520; 2560 × 1440; 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–8192 kbps H.265: 19 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/Manual |
| Noise Reduction | 3D NR |
| Motion Detection | OFF/ON (4 areas, rectangular) |
| Region of Interest (RoI) | Yes (4 areas) |
| Electronic Image Stabilization (EIS) | Yes |
| Smart Illumination | Yes |

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| Defog | Yes |
| Image Rotation | 0°/90°/180°/270° (Support with 2592×1944 resolution and lower) |
| Mirror | Yes |
| Privacy Masking | 8 areas |

Audio

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

Alarm

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|-------------|---|
| Alarm Event | No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; defocus detection; scene changing; tripwire; intrusion; abandoned object; missing object; fast moving; parking detection; loitering detection; people gathering; audio detection; people counting; face detection; voltage detection; people counting in area; stay alarm; people No. exception detection, queue management |
|-------------|---|

Network

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| Network | 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 |
| 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; P2P |
| User/Host | 20 (Total bandwidth: 80 M) |
| Storage | FTP; SFTP; Micro SD Card (support max. 256 G); NAS |
| Browser | IE: IE8 and later Chrome Firefox |
| Management Software | Smart PSS; DSS; DMSS |
| Mobile Phone | IOS; Android |

Certification

| | |
|---------------|--|
| Certification | CE-LVD: EN62368-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07 |
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Power

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| Power Supply | 12V DC (±30%)/PoE (802.3af)/ePoE |
| Power Consumption | Basic power consumption: 1.9W (12V DC); 2.2W (PoE) Max. power consumption (H.265 + max. stream + intelligent function + IR LED+focus): 6W (12V DC); 6.9W (PoE) |

Environment

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

Structure

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|--------------|---|
| Casing | Inner core: Metal Cover: Metal Decoration ring: Plastic Decoration ring |
| Dimensions | Φ122.0 mm × 108.3 mm (Φ4.8" × 4.3") |
| Net Weight | 740 g (1.6 lb) |
| Gross Weight | 910 g (2.0 lb) |

Ordering Information

| Type | Model | Description |
|------------------------|---------------------|--|
| 5MP Camera | DH-IPC-HDW5541TP-ZE | 5MP IR Vari-focal Eyeball WizMind Network Camera, PAL |
| | DH-IPC-HDW5541TN-ZE | 5MP IR Vari-focal Eyeball WizMind Network Camera, NTSC |
| | IPC-HDW5541TP-ZE | 5MP IR Vari-focal Eyeball WizMind Network Camera, PAL |
| | IPC-HDW5541TN-ZE | 5MP IR Vari-focal Eyeball WizMind 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 |
| | PFM900-E | Integrated Mount Tester |
| | TF-P100 | MicroSD Memory Card |

Accessories

Optional:



PFA130-E
Junction Box



PFB203W
Wall Mount



PFA106
Mount Adapter



PFB220C
Ceiling Mount



PFA152-E
Pole Mount



PFM321D
DC12V1A Power
Adapter



PFM900-E
Integrated Mount
tester



TF-P100
MicroSD
Memory Card

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

Dimensions (mm[inch])

