**alhua** TECHNOLOGY

# DH-IPC-HDBW5242E-ZE-MF

## 2MP IR Vari-focal Dome WizMind Network Camera

· 1/1.8" 2Megapixel progressive scan CMOS

· ROI, SVC, SMART H.264 +/H.265+, AI H.264/H.265, flexible coding, applicable to various bandwidth and storage environments

· 50/60 fps@1080P (1920 × 1080)

· WDR (140 dB), Day/Night (ICR), 3D NR, AWB, AGC, BLC

· Multiple network monitoring: Web viewer, CMS (DSS/PSS) & DMSS

· 2.7 mm–12.0 mm motorized lens

· 1/1 Alarm in/out, 1/1 audio in/out

· Max. IR LEDs Length 40 m

· Micro SD memory, IP67, IK10

· SMD 3.0

ePoE    **WizMind**

| 2Mp | Face Detection | Face Attributes | Perimeter Protection | People counting | Starlight+ |
|---|---|---|---|---|---|

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 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.
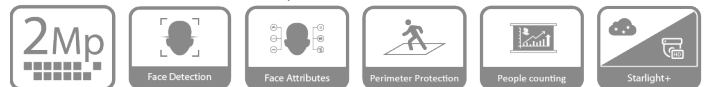
### Face Attributes

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

### 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.

### 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, IK10, 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.

IK10: The enclosure can stand the punch more than 5 times from a 5 kg hammer falling from a height of 40 cm (Impact energy is 20J).

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 | 1/1.8" CMOS |
| Max. Resolution | 1920 (H) × 1080 (V) |
| RAM | 1 GB |
| ROM | 128 MB |
| Scanning System | Progressive |
| Electronic Shutter Speed | Auto/Manual, 1/3 s– 100,000 s |
| S/N Ratio | > 56 dB |
| Minimum Illumination | 0.003 Lux@F1.8 (Color, 30IRE)<br>0.0003 Lux@F1.8 (B/W, 30IRE)<br>0 Lux (Illuminator on) |
| Illumination Distance | 40 m (131 ft) |
| Illuminator On/Off Control | Auto/Manual |
| Illuminator Number | 3 (IR LED) |

### Lens

| | |
|---|---|
| Lens Type | Motorized vari-focal |
| Mount Type | Board-in |
| Focal Length | 2.7 mm–12.0 mm |
| Max. Aperture | F1.8 |
| Angle of View | Horizontal: 114°–47°,<br>Vertical: 62°–26° |
| Aperture Type | Auto |
| Close Focus Distance | 1.2 m (3.94 ft) |

| DORI Distance | Lens | Detect | Observe | Recognize | Identify |
|---|---|---|---|---|---|
| | W | 41.0 m (134.5 ft) | 16.4m (53.8 ft) | 8.2 m (26.9 ft) | 4.1 m (13.5 ft) |
| | T | 93.4 m (306.4 ft) | 37.3 m (122.4 ft) | 18.6 m (61.0 ft) | 9.3 m (30.5 ft) |

### Pan/Tilt/Rotation

| | |
|---|---|
| Pan/Tilt/Rotation Range | Pan: 0˚–355˚; Tilt: 0˚–65˚; Rotation: 0˚–355˚ |

### Artificial Intelligence

| | |
|---|---|
| Face Detection | Face detection; track; snapshot; snapshot optimization; optimal face snapshot upload; face enhancement; face exposure; face attribute extraction including 6 attributes (gender, age, glasses, expressions, mask and beard) and 8 expressions (anger, calm, happiness, sadness, disgust, surprise, confusion and fear); mask; beard; 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 |
| Perimeter Protection | Tripwire; intrusion; fast moving (the three functions support the class ification and accurate detection of vehicle and human); loitering detection; people gathering; parking detection |

| | |
|---|---|
| People Counting | Support the counting of enter number, leave number, and pass number, and displaying and outputting yearly/monthly/daily reports.<br>Support the counting of number in area, and 4 rules configuration. Count number of people or stay time and link alarm.<br>Support queue management, and 4 rules configuration. Count number of people or stay time and link alarm |

### General Intelligence

| | |
|---|---|
| Event Trigger | Motion detection, Video tampering , Scene changing, Network disconnection , IP address conflict, Illegal Access,Storage anomaly |
| IVS | Abandoned object; missing object |
| Heat Map | Yes |

### Video

| | |
|---|---|
| Compression | H.265,H.264,H.264B,H.264H,<br>MJPEG (only supported by the sub stream) |
| Smart Codec | Smart H.265+/ Smart H.264+ |
| Streaming Capability | 3 Streams |
| Resolution | 1080P (1920 × 1080)/1.3M (1280 × 960)/720P (1280 × 720)/D1 (704 × 576/704 × 480)/VGA (640 × 480)/CIF (352 × 288/352 × 240) |
| Frame Rate | Main Stream:1920 × 1080 (1 fps–50/60 fps)<br>Sub Stream: D1 (1 fps–25/30 fps)<br>D1 (1 fps–50/60 fps)<br>Third Stream: 1080P (1 fps–25/30 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. |
| Bit Rate Control | CBR/VBR |
| Bit Rate | H.264: 32 Kbps–8192 Kbps<br>H.265: 19 Kbps–8192 Kbps |
| Day/Night | Auto(ICR)/Color/B/W |
| BLC Mode | BLC/HLC/WDR (140 dB) |
| White Balance | Auto/Natural/Street Lamp/Outdoor/Manual |
| Gain Control | Auto/Manual |
| Noise Reduction | 3D NR |
| Motion Detection | Off/On (4 areas, rectangular) |
| Region of Interest | Off/On (4 areas) |
| Electronic Image Stabilization (EIS) | Yes |
| Smart Illumination | Yes |
| Defog | Yes |
| Flip | 0°/90°/180°/270° |
| Mirror | Off/On |
| Privacy Masking | 8 areas |

### Audio

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|---|---|
| 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;intrusion;tripwire;abandoned object;missing object;fast moving;parking detection;loitering detection;people gathering;audio detection;people counting;face detection;People counting in area;Stay alarm;People No. exception detection;Queue Management |

## Network

| | |
|---|---|
| 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; PPPoE; SNMP |
| Interoperability | ONVIF (Profile S/Profile G/Profile T); CGI; Milestone; Genetec; P2P |
| User/Host | 20 Users |
| Storage | NAS; FTP; SFTP; Micro SD card (support max. 256 G) |
| Browser | IE: IE8 and later<br>Chrome<br>Firefox |
| Management Software | Smart PSS; DSS; DMSS |
| Mobile Phone | iOS; Android |

## Certifications

| | |
|---|---|
| Certifications | CE-LVD: EN62368-1<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 |

## Interface

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|---|---|
| Audio Interface | 1/1 channel In/Out |

| | |
|---|---|
| Alarm | 1 channel In: 5mA 5V DC<br>1 channel Out: 300mA 12V DC |

## Electrical

| | |
|---|---|
| Power Supply | DC 12V (±30%)/AC 24V (±30%)/PoE (802.3af)/ePoE |
| Power Consumption | Basic power consumption: 4.9W (12V DC); 5.1W (24V AC); 5.2W (PoE)<br>Max. power consumption (max. stream + intelligent function + IR LED + focus): 12.4W (12V DC); 11.9W (24V AC); 11.6W (PoE) |

## Environmental

| | |
|---|---|
| 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; IK10 |

## Construction

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|---|---|
| Casing | Metal |
| Dimensions | Φ159.0 mm × 117.9 mm (6.26" × 4.64") |
| Net Weight | 0.95 kg (2.09 lb) |
| Gross Weight | 1.20 kg (2.65 lb) |

## Ordering Information

| Type | Part Number | Description |
|---|---|---|
| 2MP camera | DH-IPC-HDBW5242EP-ZE-MF | 2MP IR Vari-focal Dome WizMind Network Camera, PAL |
| | DH-IPC-HDBW5242EN-ZE-MF | 2MP IR Vari-focal Dome WizMind Network Camera, NTSC |
| | IPC-HDBW5242EP-ZE-MF | 2MP IR Vari-focal Dome WizMind Network Camera, PAL |
| | IPC-HDBW5242EN-ZE-MF | 2MP IR Vari-focal Dome WizMind Network Camera, NTSC |
| Accessories (optional) | PFA138 | Junction Mount |
| | PFB211W | Wall Mount |
| | PFB300C | Ceiling Mount |
| | PFA152-E | Pole Mount |
| | PFA101 | Mount Adapter |
| | PFB201C | In-ceiling Mount |
| | TF-P100 | MicroSD Memory Card |

## Accessories

### Optional:

PFA138
Junction Mount

**PFB211W**
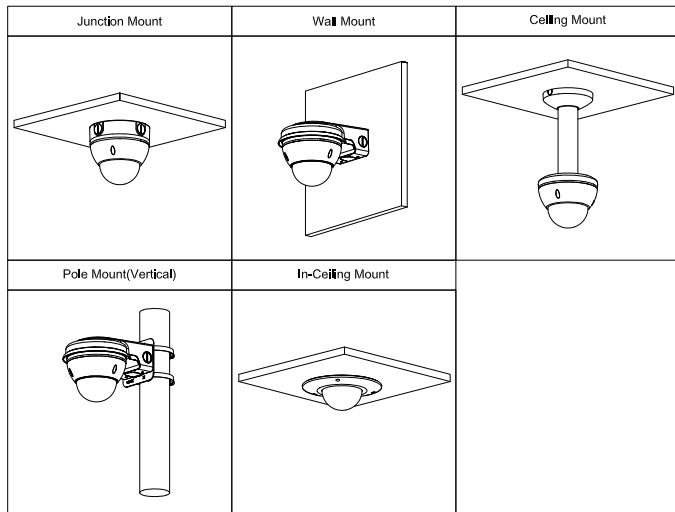Wall Mount

PFB300C
Ceiling Mount

PFA152-E
Pole Mount

PFA101
Mount Adapter

PFB201C
In-ceiling Mount

TF-P100
MicroSD
Memory Card

| Junction Mount | Wall Mount | Ceiling Mount |
|---|---|---|
| | | |
| Pole Mount(Vertical) | In-Ceiling Mount | |

## Dimensions (mm[inch])

∅159.1 [∅6.26]
∅140.0 [∅5.51]
3-∅4.7 [∅0.19]

118.1 [4.65]
63.5 [2.5]