

DH-IPC-HDBW5442E-ZE-OPAT

4 MP DHOP Vandal-proof IR Dome Network Camera



Series Overview

Dahua DHOP series network cameras adopt open application platform, allows 3rd party applications to be downloaded and installed on this series cameras. It provides end-users with the right solutions to optimize their security or IoT environment. Flexibility is also guaranteed as users can always remove existing applications and upload new solutions.

Functions

DHOP (Dahua Hardware Open Platform)

With open architecture, encapsulated hardware make it easier to develop and upgrade software this series cameras. It has a diverse ecosystem, various applications are available for the users to select the suitable solutions. Find more available applications here: <https://depp.dahuasecurity.com/OpenPlatform>.

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.

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.

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.

- 4 MP 1/1.8" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 4 MP (2688 × 1520)@25/30 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in IR LED; the max. IR illumination distance is 50 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.
- 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.
- Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card.
- 12 VDC/24V AC/PoE power supply, ePoE, transmission over long distance, easy for installations of various scenes.
- IP67/IK10 protection.



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

| Technical Specification | |
|-------------------------|---|
| DHOP | |
| Computing Power | 1T computing power for enhanced performance |
| Flash | 58M |
| System Memory | 380M |
| Multimedia Memory | 256M |
| DHOP Partners | A.I.Tech, ACIC, Grekkom, Kobi, Retailflux, Siteeye, TechnoAware, etc. (https://depp.dahuasecurity.com/OpenPlatform) |

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|----------------------------|---|
| Camera | |
| Image Sensor | 1/1.8" CMOS |
| Max. Resolution | 2688 (H) × 1520 (V) |
| ROM | 128 MB |
| RAM | 1 GB |
| Scanning System | Progressive |
| Electronic Shutter Speed | Auto/Manual 1/3 s–1/100,000 s |
| Min. Illumination | 0.003 Lux@F1.8 (Color, 30 IRE) 0.0003 Lux@F1.8 (B/W, 30 IRE) 0 lux (Illuminator on) |
| S/N Ratio | > 56 dB |
| Illumination Distance | 50 m (164 ft) (IR) |
| Illuminator On/Off Control | Auto, manual |
| Illuminator Number | 3 (IR LED) |
| Pan/Tilt/Rotation Range | Pan: 0°–355° Tilt:0°–75° Rotation:0°–355° |

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|----------------------|------|--|----------------------|---------------------|--------------------|
| Lens | | | | | |
| Lens Type | | Motorized vari-focal | | | |
| Lens Mount | | ϕ14 | | | |
| Focal Length | | 2.7 mm–12.0 mm | | | |
| Max. Aperture | | F1.8 | | | |
| Field of View | | Horizontal: 113°-46 Vertical: 61°-26° Diagonal: 134°-53° | | | |
| Iris Control | | Auto | | | |
| Close Focus Distance | | 1.2 m (3.9 ft) | | | |
| DORI Distance | Lens | Detect | Observe | Recognize | Identify |
| | W | 57.3 m (188.0 ft) | 22.9 m (75.1 ft) | 11.4 m (37.4 ft) | 5.7 m (18.7 ft) |
| | T | 130.7 m (428.8 ft) | 52.3 m (171.6 ft) | 26.1 m (85.6 ft) | 13 m (43 ft) |

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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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| Video Frame Rate | Main stream: 2688 × 1520 @(1 fps–30 fps) Sub stream: 704 × 576@(1 fps–25 fps)/704 × 480@(1 fps–30 fps) Third stream: 1920 × 1080@(1 fps–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 | 4M (2688 × 1520/2560 × 1440); 3M (2304 × 1296); 1080p (1920 × 1080); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 x 480);CIF (352 × 288/352 × 240) |
| Bit Rate Control | CBR/VBR |
| Video Bit Rate | H.264: 3 kbps–20480 kbps H.265: 3 kbps–20480 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) |
| Defog | Yes |
| Image Rotation | 0°/90°/180°/270° (Support 90°/270° with 2688 × 1520 resolution and lower) |
| Mirror | Yes |
| Privacy Masking | 8 areas |

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|-------------------|------------------------------------|
| Audio | |
| Audio Compression | PCM; G.711a; G.711Mu; G.726; G.723 |

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|-------------|--|
| Alarm | |
| Alarm Event | No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; scene changing; audio detection; voltage detection; external alarm; security exception |

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|------------------|---|
| Network | |
| Network Port | RJ-45 (10/100 Enhancement 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 |
| 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 |
| Interoperability | ONVIF (Profile S/Profile G/Profile T); CGI; Milestone;DHOP SDK |
| User/Host | 20 (Total bandwidth: 72 M) |

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| Storage | FTP; SFTP; Micro SD card (support max. 256 G); NAS |
| Browser | IE: IE8/9/11 Chrome Firefox |
| Management Software | Smart PSS; DSS |

Certification

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|---------------|--|
| Certification | CE-LVD: EN62368-1; CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU; FCC:47 CFR FCC Part 15, Subpart B |
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Port

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| Audio Input | 1 channel (RCA port) |
| Audio Output | 1 channel (RCA port) |
| Alarm Input | 1 channel in: 5mA 3V–5 VDC |
| Alarm Output | 1 channel out: 300 mA 12 VDC |

Power

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| Power Supply | 12 VDC/AC24V/PoE (802.3af) |
| Power Consumption | Basic power consumption: 4.9W (12 VDC); 5.1W (24 VAC); 5.2W (PoE) Max. power consumption (max. stream + IR LED + focus): 12.4 W (12 VDC); 11.9 W (24 VAC); 11.6 W (PoE) |

Environment

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|-----------------------|--------------------------------------|
| Operating Temperature | –30 °C to +60 °C (–22 °F to +140 °F) |
| Operating Humidity | ≤ 95% |
| Storage Temperature | –30 °C to +60 °C (–22 °F to +140 °F) |
| Protection | IP67;IK10 |

Structure

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|--------------------|-------------------------------------|
| Casing | Metal |
| Product Dimensions | 117.9 mm × Φ159.0 mm (4.6" × Φ6.3") |
| Net Weight | 0.95 kg (2.1 lb) |
| Gross Weight | 1.2 kg (2.6 lb) |

Ordering Information

| Type | Model | Description |
|------------------------|--------------------------|---|
| 5 MP Camera | DH-IPC-HDBW5442E-ZE-OPAT | 4 MP DHOP Vandal-proof IR Dome Network Camera |
| | IPC-HDBW5442E-ZE-OPAT | 4 MP DHOP Vandal-proof IR Dome Network Camera |
| Accessories (Optional) | PFA138 | Junction Box |
| | PFB211W | Wall mount |
| | PFB300C | Ceiling mount |
| | PFA152-E | Pole mount |
| | PFA101 | Mount adapter |
| | PFB201C | In-ceiling mount |

Accessories

Optional:



PFA138
Junction Box



PFB211W
Wall mount



PFB300C
Ceiling mount



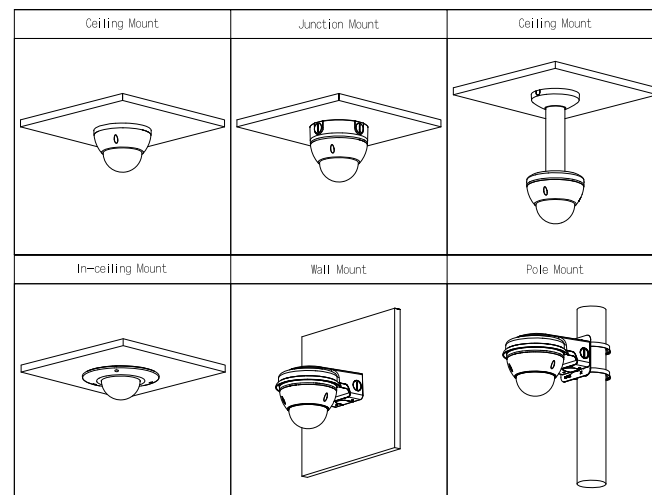
PFA152-E
Pole mount



PFA101
Mount adapter



PFB201C
In-ceiling mount



Dimensions (mm[inch])

