

DH-IPC-HFW7442H-Z

4MP IR Bullet 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 advanced deep learning algorithm, Dahua WizMind 7 Series network camera supports various intelligent functions and satisfies the requirements in different scenes. The camera can accurately recognize person, vehicle, and non-motor vehicle, face, ANPR, and liveness. This series camera has ultra starlight night version effect, and works with ultra-low stream. It 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.

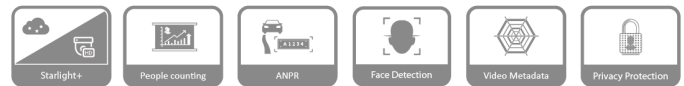
People Counting

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 reports to meet your requirements.

Video Metadata

With deep learning algorithm, Dahua Video Metadata technology can detect, track, capture vehicle, non-motor vehicle and people, and select the best images, and extract attributes.

- 4MP, 1/1.8" CMOS image sensor, low illuminance, high image definition
- Max outputs 4MP (2688 × 1520) @50 fps/60 fps
- H.264/H.265 coding, high compression ration · Wide dynamic, day/night, 3D NR, AWB, HLC, BLC
- ROI, SVC, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments
- With deep learning algorithm, it supports people counting, face detection, perimeter protection etc
- Alarm: 3 in, 2 out; audio: 1 in, 1 out; RS-485; BNC; supports max. 256 G SD card
- 24V AC/12V DC/PoE power supply (the power ports are different depending on the power supply)
- Five streams for three-channel HD video
- IP67, IK10 protection grade
- Anti-corrosion coating(optional)
- 12V DC power output, max. current 165mA , easy for installation



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.

ePoE

Dahua ePoE technology provides a new way to accomplish long distance transmission between IP camera and network switch. It allows more flexible surveillance system design, improves reliability and saves construction and wiring cost.

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.

Privacy Protection

Dahua Privacy Protection technology can mask the detected face and human body to protect the privacy of some special targets.

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.

ANPR

With high-performance GPU chip, deep learning algorithm, and lots of sample training learning, Dahua ANPR technology can automatically collect and recognize the vehicle information, including license plate, logo, vehicle type, and vehicle color.

Technical Specification

Camera

| | |
|----------------------------|---|
| Image Sensor | 1/1.8" 4Megapixel progressive CMOS |
| Max. Resolution | 2688 (H) × 1520 (V) |
| ROM | 4 GB |
| RAM | 2 GB |
| Scanning System | Progressive |
| Electronic Shutter Speed | Auto/Manual 1/3 s–1/100000 s |
| Min. Illumination | 0.001 Lux@F1.2 (Color, 30IRE) 0.0002 Lux@F1.2 (B/W, 30IRE) 0 Lux (Illuminator on) |
| S/N Ratio | > 56 dB |
| Illumination Distance | 60m (196.85 ft) |
| Illuminator On/Off Control | Auto/Manual |
| Illuminator Number | 4 (IR LED) |
| Pan/Tilt/Rotation Range | Pan: 0°–360° Tilt: 0°–90° Rotation: 0°–360° |

Lens

| | | | | | |
|----------------------|---|---------------------|--------------------|-------------------|-------------------|
| Lens Type | Motorized vari-focal | | | | |
| Mount Type | Module interface | | | | |
| Focal Length | 2.7mm–12 mm | | | | |
| Max. Aperture | F1.2 | | | | |
| Field of View | Horizontal: 114°(W)–47°(T) Vertical: 59°(W)–27°(T) Diagonal: 141° (W–55°(T) | | | | |
| Iris Type | Auto; Precise iris control | | | | |
| Close Focus Distance | W: 1 m (3.28ft) T: 2.5 m (8.20ft) | | | | |
| DORI Distance | Lens | Detect | Observe | Recognize | Identify |
| | W | 60.1 m (187.19 ft) | 24 m (78.74 ft) | 12 m (39.37 ft) | 6 m (19.69 ft) |
| | T | 128.6 m (421.92 ft) | 51.4 m (168.64 ft) | 25.7 m (84.32 ft) | 12.8 m (41.99 ft) |

Smart event

| | |
|-----|---------------------------------|
| IVS | Abandoned object, moving object |
|-----|---------------------------------|

Professional, intelligent

| | |
|----------------------------|--|
| IVS (Perimeter Protection) | Tripwire, intrusion, fast moving (the three functions support the classification and accurate detection of vehicle and human); parking detection, loitering detection, and people gathering. |
|----------------------------|--|

| | |
|--------------------|--|
| Face Detection | Face detection, track, priority, snapshot, Upload Optimized snapshot picture; face enhancement, face exposure, face attribute extract, 6 attributes and 8 expressions: Gender, age, glasses, expressions (anger, sadness, disgust, fear, surprise, calm, happiness and confusion), Mouth mask, beard; Face matting setting: face, single inch photo Three snapshot; methods: real-time snapshot, priority snapshot, quality priority; Face angle filter Priority time setting; Support Duration Optimal, Non-living Filtering; |
| ANPR | ANPR, track, priority, snapshot Vehicle attributes: license plate, vehicle type, vehicle color, vehicle brand Other attributes: sun visor, seat belt, smoking, phoning, in-car accessories, annual vehicle inspection mark |
| Video Metadata | Support human body, human face, motor vehicle and non-motor vehicle image capture and attributes extraction. |
| People Counting | Support tripwire number counting, people counting in area, and displaying and outputting yearly/monthly/daily reports. Support queue management, and displaying and outputting monthly/daily reports. Support 4 tripwire rules configuration, people counting in 4 areas, and 4 queue management functions |
| 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 Smart H.265+ / Smart H.264+ |
| Smart Codec | |
| Video Frame Rate | Main Stream: 2688 × 1520 (1–50/60 fps) Sub stream: 704 × 576 (1–25fps); 704 × 480 (1–30fps) Third stream: 1920 × 1080 (1–25/30 fps) Fourth stream: 1920 × 1080 (1–25/30 fps) Fifth stream: 704 × 576 (1–25fps); 704 × 480 (1–30fps) |
| Stream Capability | 5 streams |
| Resolution | 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: 32 kbps–10240 kbps H.265: 12 kbps–10240 kbps |
| Day/Night | Auto (ICR)/Color/B/W |
| BLC | Yes |
| HLC | Yes |
| WDR | 140 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(Rol) | Yes (4 areas) |
| Electronic Image Stabilization(EIS) | Yes |
| Smart Illumination | Yes |
| Defog | Yes |
| Image Rotation | 0°/90°/180°/270° (Support 90°/270° with 1080p resolution or below.) |
| Mirror | Yes |
| Privacy Masking | 20 areas |

Audio

| | |
|-------------------|-------------------------------|
| Audio Compression | G.711a; G.711Mu; 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; fast moving; abandoned object; missing object; loitering detection; people gathering; parking detection; scene changing; audio detection; defocus detection; external alarm; face detection; people counting in area; stay alarm; people counting; people counting exception detection; safety exception, Queue Management |
|-------------|---|

Network

| | |
|---------------------|---|
| Network | RJ-45 (10/100/1000 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; HTTPS; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; 802.1x; SNMP; Bonjour |
| Interoperability | ONVIF (Profile S/Profile G/Profile T); CGI; Milestone; Genetec; ISAPI; RTMP |
| User/Host | 20(Total bandwidth: 80M) |
| Storage | FTP; Micro SD card (256 G); NAS; SFTP |
| Browser | IE: IE9 and later Chrome: Chrome 42 and later Firefox: Firefox 48.0.2 and later |
| Management Software | Smart PSS; DSS; DMSS |
| Mobile Phone | IOS, Android |

Certification

| | |
|----------------|---|
| Certifications | CE-LVD: EN62368-1,EN60950-22 (optional) 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,UL 50E NEMA Type 4X (optional) |
|----------------|---|

Port

| | |
|--------------|---|
| RS-485 | 1 (baud rate range: 1200 bps–115200 bps) |
| Audio Input | Audio Interface: 1/1 channel In/Out |
| Audio Output | |
| Alarm Input | 3 channel In: 5mA 5V DC |
| Alarm Output | 2 channel Out: 1000mA 30V DC/500mA 50V AC |

Power

| | |
|-------------------|---|
| Power Supply | 12V DC/24V AC/PoE+ (802.3at); ePoE |
| Power Consumption | Basic power consumption: 3.7W (12V DC); 5.7W(24V AC); 5.5W (PoE) Max. power consumption (Max. stream + intelligent function + IR LED + focus): 12.2W (12V DC);17.3W(24V AC); 17.1W (PoE) Heat power consumption: 3.3W (12V DC);5.5W(24V AC); 5.5W (PoE) |

Environment

| | |
|----------------------|---|
| Operating Conditions | –40°C to +60°C (–40°F to +140°F)/Less than 95% RH |
| Storage conditions | –40°C to +60°C (–40°F to +140°F) |
| Protection Grade | IP67, IK10, Anti-Corrosion Protection: NEMA 4X (optional) |

Structure

| | |
|--------------|--|
| Casing | Metal + Plastic |
| Dimensions | 340.1 mm × 108.5 mm × 92.9 mm (13.39" × 4.27" × 3.66") (L × W × H) |
| Net Weight | 1600 g (3.53 lb) |
| Gross Weight | 2400 g (5.29 lb) |

Ordering Information

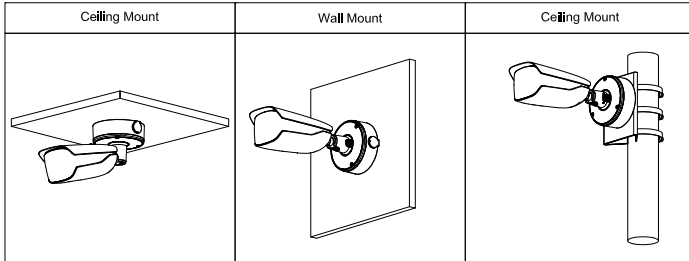
| Type | Part Number | Description |
|------------------------|--------------------|---|
| 4MP Camera | DH-IPC-HFW7442HP-Z | 4MP IR Bullet WizMind Network Camera,PAL |
| | IPC-HFW7442HP-Z | 4MP IR Bullet WizMind Network Camera,PAL |
| | DH-IPC-HFW7442HN-Z | 4MP IR Bullet WizMind Network Camera,NTSC |
| | IPC-HFW7442HN-Z | 4MP IR Bullet WizMind Network Camera,NTSC |
| Accessories (optional) | PFA154 | Pole Mount |

Accessories

Optional:



PFA154



Dimensions (mm/inch)

