

# DH-IPC-HDBW7442H-ZFR

4MP IR Dome 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

### **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.

### 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.  $\cdot 4 \text{MP}, 1/1.8"\,\text{CMOS}$  image sensor, low illuminance, high image definition

- · Max outputs 4MP (2688 × 1520) @50 fps/60 fps
- $\cdot$  H.264&H.265 coding, high compression ration  $\cdot$  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
- $\cdot$  With deep learning algorithm, it supports people counting, face recognition, 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
- $\cdot$  Five streams for three-channel HD video
- · IP67, IK10 protection grade
- · Anti-corrosion coating(optional)
- $\cdot$  12V DC power output, max. current 165mA , easy for installation



### 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.

### Face Recognition

Dahua Face Recognition technology extracts the features of captured faces and compares them with that in face database to recognize the person identity.

### **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.

### **Privacy Protection**

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

## Wiz Mind | DH-IPC-HDBW7442H-ZFR

### **Technical Specification**

### Camera

| $\begin{split}                                      $   | Camera                     |            |                                    |                |           |          |
|---|----------------------------|------------|------------------------------------|----------------|-----------|----------|
| RAMIn the set of                      | Image Sensor               |            | 1/1.8" 4Megapixel progressive CMOS |                |           |          |
| RAM2 GBScanning SystemProgressiveElectronic Shutter SpeedAuto/Manual 1/3 s=1/100 USElectronic Shutter SpeedAuto/Manual 1/3 s=1/100 USImage SystemODOI Lux@F1.2 (Color, 30 IRE)<br>OLUX (IIIuminator on)S/N Ratio $$   | Max. Resolution            |            | 2688 (H) × 1520 (V)                |                |           |          |
| Second progressive<br>ProgressiveProgressive<br>ProgressiveSecond progressive<br>Second progressiveProgressive<br>ProgressiveElectronic Shutter SpeedAuto/Manual 1/3 s=1/10000 sMin. Illuminatior<br>Dilux (Illuminator on)0.000 Lux@F1.2 (Color, 30/IE)<br>OLUX (Illuminator on)S/N Ratio $> 56 dB$ S/N Ratio $> 56 dB$ Illuminator Orff ControlAutoIlluminator Nutre $3 (IR LED)$ Illuminator Nutre $3 (IR LED)$ Pan/Tilt/Rotatur Range $3 (IR LED)$ Pan/Tilt/Rotatur RangeNotorized surversIlluminator TypeMotorized surversLens Type $Motorized surversFocal LengthNotorized surversMax. Aperture1.2Field of View1.2Progressive1.2Irits TypeAuto;ProcressiversIrits TypeMato;ProcressiversClose Focus DurceV: 1 m (3.2 Et)Tris TypeAuto;ProcressiversLensV: 1 m (3.2 Et)Norizon 1: 14^{or}(W) - 47^{or}(T)SongraversNorizon 1: 14^{or}(W) - 57^{or}(T)SongraversSite markSongraversSite markSongraversSite markSongraversSite markSongraversSite markSongraversSite markSongraversSite markSongraversSite markSongraversSite markSongraversSite markSongraversS$  | ROM                        |            | 16 GB                              |                |           |          |
| It is the series of the serie | RAM                        |            | 2 GB                               |                |           |          |
| Min. Illumination Distance 0.001 Lx@F1.2 (B/W, 30IRE)<br>0.0002 Lux@F1.2 (B/W, 30IRE)<br>0.0002 Lux@F1.2 (B/W, 30IRE)   S/N Ratio > 56 dB   S/N Ratio 40 m (131.23 ft)   Illumination Distance 40 m (131.23 ft)   Illuminator O/ff Control Auto   Illuminator N/T $Auto$ Pan/Tilt/Rotation Range Pan: 0^-355°   Kotation: 0^-355° $Fire N/T   Pan/Tilt/Rotation Range Pan: 0^-355°   Kotation: 0^-355° Fire N/T   Lens Type Motorized V/T   Mount Type Motorized V/T   Mount Type Fire N/T   Max. Aperture Fire N/T   Field of View Fire N/T   Diagonal: L14*(W)-47*(T) V/T   Diagonal: L14*(W)-47*(T) V/T   Lens Detect Secontio$  | Scanning Syste             | m          | Progressive                        |                |           |          |
| Min. Illumination0.0002 Lux@F1.2 (B/W, 30IRE)<br>O Lux (Illuminator on)S/N Ratio> 56 dBIllumination Distance40 m (131.23 ft)Illuminator Or<br>Illuminator Or<br>f ControlAutoIlluminator Nor<br>Illuminator Nor<br>Mount Type3 (IR LED)Pan/Tilt/Rotation Range $3$ (IR LED)Pan/Tilt/Rotation Range $Pan: 0^{*-355^{*}}$<br>Rotation: $0^{*-355^{*}}$<br>  | Electronic Shut            | tter Speed | Auto/Manual 1/3 s-1/100000 s       |                |           |          |
| $\begin{tabular}{                                    $  | Min. Illumination          |            | 0.0002 Lux@                        | PF1.2 (B/W, 30 | ,         |          |
| Illuminator On/Off ControlAutoIlluminator N/Off ControlA (IR LED)Illuminator N/Or3 (IR LED)Pan/Tilt/Rotation RangePan: 0°-355°<br>Tilt: 0°-80°<br>Rotation: 0°-355°Pan/Tilt/Rotation RangePan: 0°-355°LensVarian Several Se   | S/N Ratio                  |            | > 56 dB                            |                |           |          |
| Illuminator Number3 (IR LED)Pan/Tilt/Rotation Range $3 (IR LED)$ Pan/Tilt/Rotation Range $2 (IR LEO)^{-355^{\circ}}$ Lens $3 (IR LED)^{-355^{\circ}}$ Lens Type $Motorized verifocal$ Mount Type $Motorized verifocal$ Mount Type $Module interface$ Focal Length $2.7 mm \cdot 12 m = 10^{-10} m m^{-10} $   | Illumination Di            | stance     | 40 m (131.23 ft)                   |                |           |          |
| Pan/Tilt/Rotation RangePan: 0°-355°<br>Rotation: 0°-355°Pan/Tilt/Rotation RangePan: 0°-355°<br>Rotation: 0°-355°LensLens TypeMotorized vari-focalMount TypeModule interfocalMount TypeModule interfocalFocal Length2.7 mm·12 mFocal LengthHorizontal: 14°(W)-47°(T)<br>Vertical: 59°(W)-27°(T)<br>Diagonal: 14" (W-55°(T)Field of ViewF1.2Field of ViewAuto;Precise sortrolIris TypeAuto;Precise sortrolIris TypeLensLensDetect00001<br>DORI<br>DistanceDetectMaxPanceInterformGo.1 m<br>(187.19ft)Quart<br>T128.6 m51.4 m25.7 m<br>(39.37 ft)12.8 m  | Illuminator On/Off Control |            | Auto                               |                |           |          |
| Tilt: 0°-80°<br>Rotation: 0°-355°Rotation: 0°-355°LensMotorized vari-focalLens TypeMotorized vari-focalMount TypeModule inter-focalMount TypeModule inter-focalMount TypeSame data with the formation of the focal lengthFocal Length2.7 mm-12 wer set set set set set for focalMax. ApertureF1.2Max. ApertureHorizontal: 14°(W)-47°(T)<br>Vertical: 59°(W)-27°(T)<br>Diagonal: 14' (W-55°(T))Field of ViewAuto;Precist: set  | Illuminator Number         |            | 3 (IR LED)                         |                |           |          |
| Motorized vari-focal   Mount Type Module interface   Focal Length 2.7 mm-12 mm-12   Max. Aperture F1.2   Max. Aperture F1.2   Field of View Horizontal: 14°(W)-47°(T)<br>Vertical: 59°(W)-27°(T)<br>Diagonal: 141° (W-55°(T) Second Seco  | Pan/Tilt/Rotation Range    |            | Tilt: 0°-80°                       |                |           |          |
| Mount Type Module interface   Focal Length 2.7 mm-12 mm-12   Max. Aperture F1.2   Miss Aperture Horizontal: $14^{\circ}$ (W)-47°(T)<br>Vertical: $59^{\circ}$ (W)-27°(T)<br>Diagonal: $141^{\circ}$ (W-55°(T)   Iris Type Auto;Precise Second 2000   Close Focus Distance Detect Observe Recognize Identify   DORI W 60.1 m<br>(187.19 ft) 24 m<br>(78.74 ft) 12 m<br>(39.37 ft) 6 m<br>(19.69 ft)   T 128.6 m 51.4 m 25.7 m 12.8 m   | Lens                       |            |                                    |                |           |          |
| Focal Length 2.7 mm-12 mm   Max. Aperture F1.2   Field of View F1.2   Field of View Auto;Precise 59°(W)-27°(T) Diagonal: 141° (W-55°(T))   Iris Type Auto;Precise control   Close Focus Distance W: 1 m (3.28ft) T: 2.5 m (8.20ft)   DORI Distance 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)   DORI Distance T 128.6 m 51.4 m 25.7 m 12.8 m   | Lens Type                  |            | Motorized vari-focal               |                |           |          |
| Image: Second                 | Mount Type                 |            | Module interface                   |                |           |          |
| Horizontal: 114° (W)-47°(T)   Field of View Horizontal: 114° (W)-47°(T)   Vertical: 59° (W)-27°(T) Diagonal: 141° (W-55°(T)   Iris Type Auto;Precise is control   Close Focus Distance W: 1 m (3.28ft)   Lens Detect Observe Recognize Identify   DORI W 60.1 m (187.19 ft) 24 m (12 m (39.37 ft) 6 m (19.69 ft)   Dostance T 128.6 m 51.4 m 25.7 m 12.8 m  | Focal Length               |            | 2.7 mm-12 mm                       |                |           |          |
| Field of ViewVertical: 59°(W)-27°(T)<br>Diagonal: 141° (W-55°(T))Iris TypeAuto;Precise is controlIris TypeAuto;Precise is controlClose Focus Distance $W: 1 m (3.28f)$<br>T: 2.5 m (8.20f)DORI<br>DistanceLensDetectObserveRecognizeW $60.1 m$<br>(187.19 ft) $24 m$<br>(78.74 ft) $12 m$<br>(39.37 ft) $6 m$<br>(19.69 ft)T128.6 m $51.4 m$ $25.7 m$ $12.8 m$  | Max. Aperture              |            | F1.2                               |                |           |          |
| Close Focus Distance   W: 1 m (3.28ft)<br>T: 2.5 m (8.20ft)     DORI<br>Distance   Lens   Detect   Observe   Recognize   Identify     T   128.6 m   24 m   12 m   6 m   (19.69 ft)     T   128.6 m   51.4 m   25.7 m   12.8 m   | Field of View              |            | Vertical: 59°(W)–27°(T)            |                |           |          |
| Lens   Detect   Observe   Recognize   Identify     DORI   W   60.1 m<br>(187.19 ft)   24 m<br>(78.74 ft)   12 m<br>(39.37 ft)   6 m<br>(19.69 ft)     T   128.6 m   51.4 m   25.7 m   12.8 m  | Iris Type                  |            | Auto;Precise iris control          |                |           |          |
| DORI   W   60.1 m<br>(187.19 ft)   24 m<br>(78.74 ft)   12 m<br>(39.37 ft)   6 m<br>(19.69 ft)     T   128.6 m   51.4 m   25.7 m   12.8 m   | Close Focus Distance       |            |                                    |                |           |          |
| DORI   W   (187.19 ft)   (78.74 ft)   (39.37 ft)   (19.69 ft)     Distance   T   128.6 m   51.4 m   25.7 m   12.8 m   |                            | Lens       | Detect                             | Observe        | Recognize | Identify |
| T 128.6 m 51.4 m 25.7 m 12.8 m  |                            | W          |                                    |                |           |          |
|   |                            | Т          |                                    |                |           |          |

### Smart event

| IVS                        | Abandoned object, moving object   |  |  |  |
|----------------------------|---|--|--|--|
| Professional, intelligent  |   |  |  |  |
| IVS (Perimeter Protection) | Tripwire, intrusion, fast moving (the three functions<br>support the classification and accurate detection<br>of vehicle and human); parking detection, loitering<br>detection, and people gathering.   |  |  |  |
| Face Recognition           | Face recognition, track, priority, snapshot, face<br>enhancement, face exposure<br>Face attribute extract, 6 attributes and 8 expressions:<br>Gender, age, glasses, expressions (anger, sadness,<br>disgust, fear, surprise, calm, happiness and confusion),<br>mask, beard<br>Face matting setting: face, single inch photo<br>Two snapshot strategies: priority snapshot, recognition<br>Face angle filter<br>Priority time setting<br>Management of 5 group face libraries<br>Single person register and person register in batch<br>Face recognition and similarity setting<br>Max supports face contrast in face library with<br>200,000 faces<br>Support Duration Optimal, Non-living Filtering |  |  |  |

| People Counting                         | Support tripwire number counting, people counting in<br>area, and displaying and outputting yearly/monthly/<br>daily reports.Support queue management, and<br>displaying and outputting monthly/daily reports.<br>Support 4 tripwire rules configuration, people<br>counting in 4 areas, and 4 queue management<br>functions |
|---|--|
| Video Metadata                          | Support human body, human face, motor vehicle<br>and non-motor vehicle image capture and attributes<br>extraction.   |
| 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(only supported by sub stream)  |
| Smart Codec                             | Smart H.265+/ Smart H.264+   |
| Video Frame Rate                        | Main Stream: 2688 × 1520 (1–50/60 fps)<br>Sub stream: 704 × 576 (1–25fps);704 × 480 (1–30fps)<br>Third stream: 1920 × 1080 (1–25/30 fps)<br>Fourth stream: 1920 × 1080 (1–25/30 fps)<br>Fifth stream: 704 × 576 (1–25fps);704 × 480 (1–30fps)  |
| Stream Capability                       | 5 streams  |
| Resolution                              | 4M (2688 × 1520), 3M (2304 × 1296), 1080p (1920 ×<br>1080), 1.3M (1280 × 960), 720p (1280 × 720), D1 (704<br>× 576/704 × 480), VGA (640 × 480), CIF (352 × 288/352<br>× 240)   |
| Bit Rate Control                        | CBR/VBR  |
| Video Bit Rate                          | H.264: 32 Kbps–10240 Kbps<br>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 (RoI)                | Yes (4 areas)  |
| Electronic Image Stabilization<br>(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                         | 4 areas  |
| Audio                                   |  |
| Audio Compression                       | G.711a; G.711Mu; G726;G.723  |

### Wiz Mind | DH-IPC-HDBW7442H-ZFR

| Wiz Mind  D                 | H-IPC-HDBW /442H-ZFR  |
|-----------------------------|---|
| Alarm                       |   |
| Alarm Event                 | No SD card; SD card full; SD card error; network<br>disconnection; IP conflict; illegal access; motion<br>detection; video tampering; tripwire; intrusion; fast<br>moving; abandoned object; missing object; loitering<br>detection; people gathering; parking detection; scene<br>changing; audio detection; defocus detection; external<br>alarm; Face Recognition; people counting in area; stay<br>alarm; people counting; people counting exception<br>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<br>encryption; Digest; WSSE; account lockout; security<br>logs; IP/MAC filtering; generation and importing of<br>X.509 certification; syslog; HTTPS; 802.1x; trusted<br>boot; trusted execution; trusted upgrade   |
| Protocol                    | IPv4; IPv6; HTTP; HTTPS; TCP; UDP; ARP; RTP; RTSP;<br>RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS;<br>QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA;<br>PPPoE; 802.1x; SNMP; Bonjour   |
| Interoperability            | ONVIF (Profile S/Profile G/Profile T); CGI; Milestone;<br>Genetec; P2P;RTMP   |
| User/Host                   | 20 (Total bandwidth: 80 M.)   |
| Storage                     | FTP; Micro SD card (256 G); NAS; SFTP   |
| Browser                     | IE: IE9 and later<br>Chrome: Chrome 42 and later<br>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)<br>CE-EMC: Electromagnetic Compatibility Directive<br>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,UL<br>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<br>Alarm Input |   |
| Alarm Output                | 3 channel In: 5mA 5V DC<br>2 channel Out: 1000mA 30V DC/500mA 50V AC  |
|                             |   |

Power

Power Supply

Basic power consumption: 5.4W (12V DC); 5W(24V AC); 4.9W (PoE) Max. power consumption (Max. stream + intelligent function + IR LED + focus): 16.7W (12V DC);15.7W(24V AC); 15.6W (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<br>(optional) |

12V DC/24V AC/PoE+ (802.3at); ePoE

### Structure

| Casing       | Metal + Plastic   |
|--------------|---|
| Dimensions   | 129.1 mm $\times$ Ф157.9 mm (5.08" $\times$ Ф6.22") (L $\times$ W $\times$ H) |
| Net Weight   | 1500 g(3.31 lb)   |
| Gross Weight | 1600 g (3.53 lb)  |

#### **Ordering Information** Part Number Description Туре DH-IPC-4MP IR Dome WizMind Network Camera, PAL HDBW7442HP-ZFR DH-IPC-4MP IR Dome WizMind Network Camera,NTSC HDBW7442HN-ZFR 4MP Camera IPC-4MP IR Dome WizMind Network Camera, PAL HDBW7442HP-ZFR IPC-4MP IR Dome WizMind Network Camera,NTSC HDBW7442HN-ZFR PFA773 Sun Shade PFB211W Wall Mount Accessories PFA152-E Pole Mount (Optional) PFA101 Mount Adapter PFB300C Ceiling Mount

### Accessories

### **Optional:**







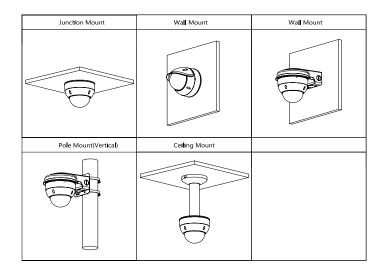
PFB211W

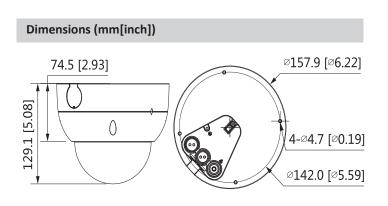


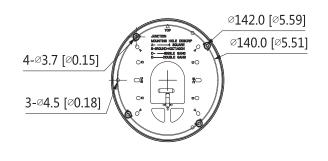


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PFB300C







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