

# DH-IPC-HDW5449H-ASE-D2

4MP Dual Lens Fixed-focal Eyeball WizMind Full-color Network Camera



Wiz Mind

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.

#### **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.

#### **Multi-spectrum Fusion**

Dahua Multi-Spectrum Fusion technology extracts the details and brightness of the visible spectrum and infrared spectrum to make the fusion brightness close to the visible light brightness, so that the camera provides a better image.

- Dual AI sensors with multi-spectral imaging technology that produces colorful images in low illumination conditions.
- · Outputs max. 4MP (2688 × 1520)@25/30 fps.
- $\cdot$  Built-in warm light/IR LED, with a maximum illumination distance of 50 m.
- ROI, SMART H.264+/H.265+, AI 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.
- Intelligent monitoring: Intrusion, tripwire, fast moving (the three functions support the classification and accurate detection of vehicle and human); abandoned object, missing object, loitering detection, people gathering, and parking detection.
- Face detection: Track, snapshot, snapshot optimization, optimal face snapshot upload, face enhancement, and face exposure.
- People counting: Queue management, people counting in area, entered/exited people counting, and generating and exporting report (day/month/year).
- Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card; built-in mic and speaker.
- · 12 VDC/PoE power supply.
- · IP67 protection.



#### Full-color

With high-performance sensor and large aperture lens, Dahua Full-color technology can display clear colorful image in the environment of ultra-low illuminance. With this photosensitivity technology, the camera can capture more available light, and display more colorful image details.

#### **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, 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.

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.

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### **Technical Specification**

SMD 3.0

Camera					
Image Sensor		1/1.8" + 1/2.8" 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		0.0002 lux @F1.0			
S/N Ratio		> 56 dB			
Illumination Distance		50 m (164.04 ft)			
Illuminator On/Off Control		Auto; manual			
Illuminator Number		2 (IR light); 2 (warm light)			
Pan/Tilt/Rotation Range		Pan: 0°–360° Tilt: 0°–78° Rotation: 0°–360°			
Lens					
Lens Type		Fixed-focal			
Lens Mount		M16 + M12			
Focal Length		2.8 mm; 3.6 mm; 6 mm			
Max. Aperture		F1.0 + F1.6			
Field of View		2.8 mm: Horizontal: 97°; Vertical: 48°; Diagonal: 115° 3.6 mm: Horizontal: 75°; Vertical: 39°; Diagonal: 87° 6 mm: Horizontal: 47°; Vertical: 25°; Diagonal: 56°			
Iris Control		Fixed			
Close Focus Distance		2.8 mm: 2 m (6.56 ft) 3.6 mm: 2 m (6.56 ft) 6 mm: 2.5 m (8.20 ft)			
	Lens	Detect	Observe	Recognize	Identify
DORI	2.8 mm	58.2 m (190.9 ft)	23.3 m (76.4 ft)	11.6 m (38.1 ft)	5.8 m (19 ft)
Distance	3.6 mm	70.3 m (230.6 ft)	28.1 m (92.2 ft)	14.1 m (46.3 ft)	7.0 m (22.3 ft)
	6 mm	116.1 m (380.9 ft)	46.5 m (152.6 ft)	23.2 m (76.1 ft)	11.6 m (38.1 ft)
Smart event	t				
IVS		Abandoned object; missing object			
Heat Map		Yes			
Professional, intelligent					
IVS (Perimeter Protection)		Intrusion, tripwire, fast moving (the three functions support the classification and accurate detection of vehicle and human); loitering detection, people gathering, and parking detection			

Less false alarm, longer detection distance

Face Detection	Face detection; track; snapshot; snapshot optimization; optimal face snapshot upload; face enhancement; face exposure; face attributes extraction including 7 attributes (gender, age, glasses, expressions, skin color, mask, and beard) and 8 expressions (angry, sad, disgusted, scared, surprised, calm, happy, confused); face snapshot set as face or one-inch photo; snapshot strategies (real- time snapshot, quality priority and optimization snapshot); face angle filter; optimization time setting
People Counting	Tripwire people counting and people counting in area; generating and exporting report (day/ month/year); queue management; 4 rules can be set for tripwire, people counting in area and queue management
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.264B; MJPEG (Only supported by the sub stream)
Smart Codec	Smart H.265+; Smart H.264+
AI Coding	AI H.265; AI H.264
Video Frame Rate	Main stream: 2688 × 1520@(1–25/30 fps) Sub stream: 704 × 576@(1–25 fps)/704 × 480@ (1–30 fps) Third stream: 1920 × 1080@(1–25/30 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	4M (2688 × 1520); 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	Color/B/W
BLC	Yes
HLC	Yes
WDR	DWDR
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)
Image Rotation	0°/90°/180°/270° (Support 90°/270° with 1080p resolution and lower)
Mirror	Yes
Privacy Masking	4 areas
Audio	
Built-in MIC	Yes

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Audio Compression	PCM; 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; voltage detection; face detection; people counting in area; stay detection; people counting; people number error detection; security exception; defocus detection; people number alarm; queue time alarm			
Network				
Network Port	RJ-45 (10/100 Enhancement Base-T)			
SDK and API	Yes			
Cyber Security	Video encryption; configuration encryption; Digest; WSSE; account lockout; security logs; generation and importing of X.509 certification; HTTPS; trusted boot; trusted execution; trusted upgrade			
Network Protocol	IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; SMTP; FTP; DHCP; DNS; NTP; Multicast; DDNS			
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; Milestone; Genetec; P2P			
Storage	FTP; SFTP; Micro SD card (support max. 256 G); NAS			
Browser	IE: IE8, IE9, IE11 Chrome Firefox			
Management Software	Smart PSS; DSS; DMSS			
Mobile Client	iOS; Android			
Certification				
Certifications	CE-LVD: EN62368-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL62368-1 & CAN/CSA C22.2 No. 62368- 1-14			
Port				
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: 300mA 12 VDC			
Power				
Power Supply	12 VDC (±30%); PoE (802.3af); ePoE			
Power Consumption	Basic: 3.9 W (12 VDC); 4.6 W (PoE) Max. (H.265+IR and Warm light on): 9.3 W (12 VDC); 10.5 W (PoE)			
Environment				
Operating Temperature	-40 °C to +60 °C (-40 °F to +140 °F)			
Operating Humidity	≤ 95%			
Storage Temperature	-40 °C to +60 °C (-40 °F to +140 °F)			

Protection	IP67
Structure	
Casing	Metal
Product Dimensions	Φ122 mm × 110.9 mm (Φ4.80" × 4.37")
Net Weight	0.75 kg (1.65 lb)
Gross Weight	0.94 kg (2.07 lb)

Ordering Information				
Туре	Part Number	Description		
4MP Camera	DH-IPC- HDW5449HP-ASE- D2-0280B	4 MP Dual Lens Fixed-focal Eyeball WizMind Full-color Network Camera		
	DH-IPC- HDW5449HP-ASE- D2-0360B	4 MP Dual Lens Fixed-focal Eyeball WizMind Full-color Network Camera		
	DH-IPC- HDW5449HP-ASE- D2-0600B	4 MP Dual Lens Fixed-focal Eyeball WizMind Full-color Network Camera		
	IPC-HDW5449HP- ASE-D2-0280B	4 MP Dual Lens Fixed-focal Eyeball WizMind Full-color Network Camera		
	IPC-HDW5449HP- ASE-D2-0360B	4 MP Dual Lens Fixed-focal Eyeball WizMind Full-color Network Camera		
	IPC-HDW5449HP- ASE-D2-0600B	4 MP Dual Lens Fixed-focal Eyeball WizMind Full-color Network Camera		
	PFA137	Junction Box		
Accessories (optional)	PFB203W	Wall Mount Bracket		
	PFA152-E	Pole Mount Bracket		
	PFB220C	Celling Mount Bracket		
	PFA106	Mount Adapter		
	PFM321D	12 VDC 1A Power Adapter		
	LR1002-1ET/1EC	Single-port Long Reach Ethernet over Coax Extender		
	PFM900-E	Integrated Mount Tester		
	PFM114	TLC SD Card		

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#### Accessories

#### **Optional:**



PFA137 Junction Box



PFB203W Wall Mount Bracket



PFA152-E Pole Mount Bracket



PFB220C

Celling Mount Bracket

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PFM321D 12 VDC 1A Power Adapter



LR1002-1ET/1EC Single-port Long Reach Ethernet over

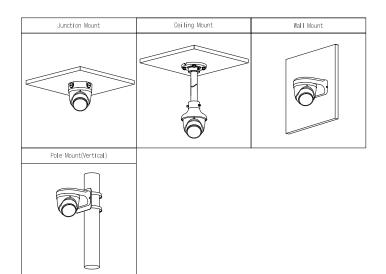
Coax Extender



PFM900-E Integrated Mount Tester



PFM114 TLC SD Card



### Dimensions (mm[inch])

