

DH-IPC-HDBW5442R-S

4MP IR Fixed-focal 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 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.

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.

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.

- 4-MP 1/1.8" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 4 MP (2688 × 1520)@30 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in IR LED, and the max. illumination distance is 50 m.
- ROI, SVC, 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, parking detection, heat map and face detection.
- Abnormality detection: Motion detection, video tampering, scene changing, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection.
- Supports max. 256 G Micro SD card.
- 12 VDC/PoE power supply, easy for installation.
- IP67 and IK10 protection.
- SMD 3.0.



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

Technical Specification

Camera

Image Sensor	1/1.8" CMOS
Max. Resolution	2688 (H) × 1520 (V)
ROM	128 MB
RAM	512 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s~1/100,000 s
Min. Illumination	0.002 lux@F1.6 (Color, 30 IRE) 0.0002 lux@F1.6 (B/W, 30 IRE) 0 lux (Illuminator on)
S/N Ratio	>56 dB
Illumination Distance	50 m (164.04 ft) (IR)
Illuminator On/Off Control	Auto; manual
Illuminator Number	1 (IR LED)
Pan/Tilt/Rotation Range	Pan: 0°~355° Tilt: 0°~75° Rotation: 0°~355°

Lens

Lens Type	Fixed-focal				
Lens Mount	M16				
Focal Length	2.8 mm; 3.6 mm; 6 mm				
Max. Aperture	F1.6				
Field of View	2.8 mm: Horizontal: 113°; Vertical: 60°; Diagonal: 134° 3.6 mm: Horizontal: 89°; Vertical: 48°; Diagonal: 104° 6 mm: Horizontal: 56°; Vertical: 31°; Diagonal: 65°				
Iris Control	Fixed				
Close Focus Distance	2.8 mm: 1.3 m (4.27 ft) 3.6 mm: 1.9 m (6.23 ft) 6mm: 3.8 m (12.47 ft)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8mm	57.9 m (189.96 ft)	23.2 m (76.12 ft)	11.6 m (38.06 ft)	5.8 m (19.03 ft)
	3.6mm	71.7 m (235.34 ft)	28.7 m (94.16 ft)	14.3 m (46.92 ft)	7.2 m (23.62 ft)
	6mm	113.1 m (371.06 ft)	45.2 m (148.29 ft)	22.6 m (74.15 ft)	11.3 m (37.07 ft)

Smart Event

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
SMD 3.0	Less false alarm, longer detection distance

Face Detection

Face detection; track; snapshot; snapshot optimization; optimal face snapshot upload; face enhancement; face exposure; face snapshot set as face, one-inch photo or custom; 3 snapshot strategies (real-time snapshot, optimization snapshot and quality first); face angle filter; optimization time setting

People Counting

Tripwire people counting, generating and exporting report (day/month); people counting in area; queue management; 4 rules can be set for tripwire, people counting in area and queue management.

Smart 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 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 fps~25/30 fps) / 1920 × 1080 (1 fps~50/60 fps)
Sub stream: D1@(1~25/30 fps)
Third stream: 1080p@(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); 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: 3 kbps~20480 kbps
H.265: 3 kbps~20480 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)

Defog

Yes

Image Rotation

0°/90°/180°/270° (Support 90°/270° with 4M resolution and lower)

Mirror

Yes

Privacy Masking

8 areas










Alarm

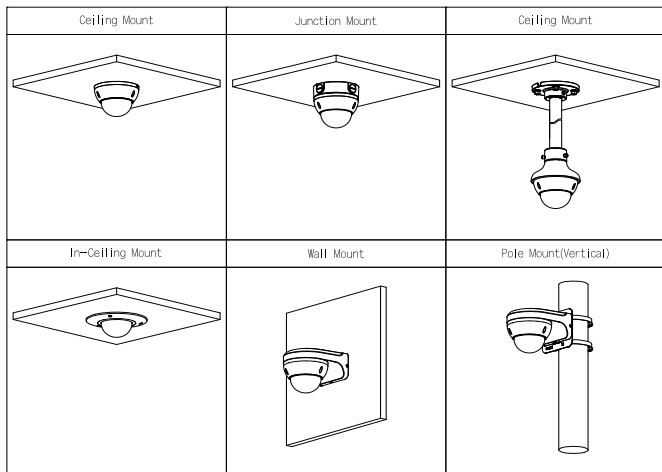
Alarm Event	No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; fast moving; abandoned object; missing object; loitering detection; people gathering; parking detection; scene changing; face detection; SMD; people counting in area; stay detection; people counting; security exception
Network	
Network Port	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
Network 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
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; Milestone; P2P
User/Host	20 (Total bandwidth: 80 M)
Storage	FTP; SFTP; Micro SD card (support max. 256 GB); NAS
Browser	IE: IE8 and later Chrome Firefox
Management Software	Smart PSS;DSS;DMSS
Mobile Client	iOS; Android
Certification	
Certifications	CE-LVD: EN60950-1 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
Power	
Power Supply	12 VDC/PoE (802.3af)
Power Consumption	Basic: 2.4 W (12 VDC); 2.8 W (PoE) Max. (H.265 + three streams + intelligence on + IR on): 5.4 W (12 VDC); 5.8 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; IK10
Structure	
Casing	Metal + plastic
Product Dimensions	Φ122 mm × 88.9 mm (4.80" × Φ3.50")
Net Weight	470 g (1.03 lb)
Gross Weight	630 g (1.39 lb)

Ordering Information		
Type	Model	Description
4MP Camera	DH-IPC-HDBW5442RP-S	4MP IR Fixed-focal Dome WizMind Network Camera, PAL
	DH-IPC-HDBW5442RN-S	4MP IR Fixed-focal Dome WizMind Network Camera, NTSC
Accessories	PFB203W	Wall Mount Bracket
	PFA152-E	Pole Mount Bracket
	PFB220C	Ceiling Mount Bracket
	PFA151	Corner Mount Bracket
	PFA137	Junction Box
	PFA106	Mount Adapter
	PFM321D	12 VDC 1A Power Adapter
	PFM900-E	Integrated Mount Tester
	TF-P100/256G	MicroSD Memory Card

Accessories

Optional:

		
PFB203W Wall Mount Bracket	PFA152-E Pole Mount Bracket	PFB220C Ceiling Mount Bracket
		
PFA151 Corner Mount Bracket	PFA137 Junction box	PFA106 Mount Adapter
		
PFM321D 12 VDC 1A Power Adapter	PFM900-E Integrated Mount Tester	TF-P100/256G MicroSD Memory Card



Dimensions (mm[inch])

