

DH-IPC-HDBW5541R-S

5MP 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.

- 5-MP 1/2.7" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 5 MP (2592 × 1944)@20 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 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

Camera

Image Sensor	1/2.7" CMOS
Max. Resolution	2592 (H) × 1944 (V)
ROM	128 MB
RAM	512 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.005 lux@F1.6 (Color, 30 IRE) 0.0005 lux@F1.6 (B/W, 30 IRE) 0 lux (Illuminator on)
S/N Ratio	>56 dB
Illumination Distance	2.8 mm: 30 m (98.43 ft) (IR) 3.6 mm: 30 m (98.43 ft) (IR) 6 mm: 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	M12				
Focal Length	2.8 mm; 3.6 mm; 6 mm				
Max. Aperture	F1.6				
Field of View	2.8 mm: Horizontal: 102°; Vertical: 71°; Diagonal: 131° 3.6 mm: Horizontal: 84°; Vertical: 58°; Diagonal: 110° 6 mm: Horizontal: 51°; Vertical: 37°; Diagonal: 63°				
Iris Control	Fixed				
Close Focus Distance	2.8 mm: 0.9 m (2.95 ft) 3.6 mm: 1.6 m (5.25 ft) 6 mm: 3.1 m (10.17 ft)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8mm	56 m (183.73 ft)	22.4 m (73.49 ft)	11.2 m (36.75 ft)	5.6 m (18.37 ft)
	3.6mm	80 m (262.47 ft)	32 m (104.99 ft)	16 m (52.49 ft)	8 m (26.25 ft)
	6mm	120 m (393.70 ft)	48 m (157.48 ft)	24 m (78.74 ft)	12 m (39.37 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: 2592×1944@(1–20 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	2592 × 1944; 2688 × 1520; 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	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 4M resolution and lower)
Mirror	Yes
Privacy Masking	8 areas
Alarm	No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; voltage detection; 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: IE 8 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
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Power

Power Supply	12 VDC/PoE (802.3af)
Power Consumption	Basic: 2 W (12 VDC); 2.6 W (PoE) Max. (H.265 + three streams + intelligence on + IR on): 4.7 W (12 VDC); 5.2 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
SMP Camera	DH-IPC-HDBW5541RP-S	5MP IR Fixed-focal Dome WizMind Network Camera, PAL
	DH-IPC-HDBW5541RN-S	5MP 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
	LR1002-1ET/1EC	Single-port Long Reach Ethernet over Coax Extender
PFM900-E	Integrated Mount Tester	

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



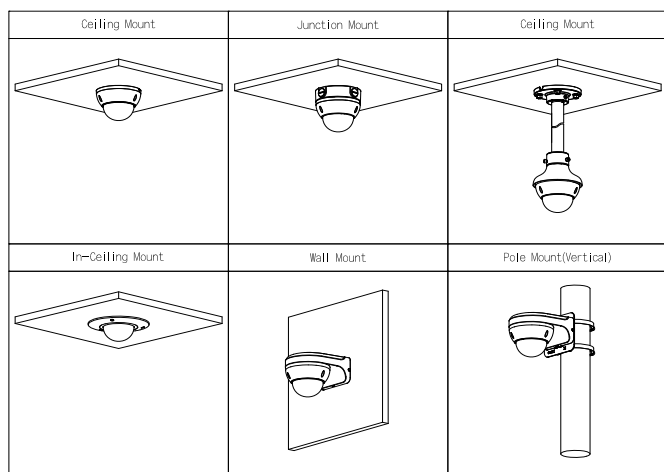
PFM321D
12 VDC 1A Power
Adapter



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



PFM900-E
Integrated
Mount Tester



Dimensions (mm[inch])

