Dahua TECHNOLOGY

DH-IPC-HDW5541H-AS-PV

5MP IR Fixed-focal Eyeball WizMind Network Camera

WizMind

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

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.

Siren and Light Active Deterrence

Dahua siren and light active deterrence network camera supports the white light alarm and voice alarm when perimeter event occurs, to realize the deterrence and effective intervention. The camera is built in multiple voices for selection, and supports customized voice importing.

- 5-MP 1/2.7" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 5MP (2592 × 1944)@20 fps , and supports 4MP (2688 × 1520)@25/30 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in IR LED, and the max. illumination distance is 50 m.
- ROI, 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 and heat map.
- 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.
- Sound and light alarm linkage. When the alarm is triggered, the sound and light will be linked.
- Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card; built in MIC and speaker, support two-way talk.
- 12 VDC/PoE power supply, easy for installation.
- IP67 protection.
- SMD 3.0

| 5Mp | Perimeter Protection | People Counting | Sound and Light Alarm | Starlight+ |

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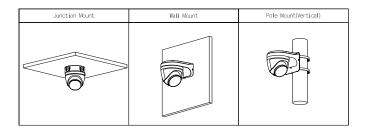
Technical Specification

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	50 m (164.04 ft) (IR)
Illuminator On/Off Control	Auto; Manual
Illuminator Number	1 (IR LED) 1 (Warm light)
Pan/Tilt/Rotation Range	Pan: 0°–360° Tilt: 0°–78° Rotation: 0°–360°

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
	2.8 mm	56 m (183.73 ft)	22.4 m (73.49 ft)	11.2 m (36.75 ft)	5.6 m (18.37 ft)
	3.6 mm	80 m (262.47 ft)	32 m (104.99 ft)	16 m (52.49 ft)	8 m (26.25 ft)
	6 mm	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

People Counting	Support the counting of enter number, leave number and pass number, and displaying and outputting yearly/monthly/daily reports.Support the counting of number in area, and 4 rules configuration. Count number of people or stay time and link alarm.Support queue management, and 4 rules configuration. Count number of people or stay time and link alarm.
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	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

Audio

Built-in MIC	Yes
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; external alarm; 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

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/PoE (802.3af)
Power Consumption	Basic: 2.4 W (12 VDC); 3 W (PoE) Max. (H.265 + three streams + intelligence on + IR on + warm light + max. speaker volume): 8 W (12 VDC); 9.6W (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 + plastic
Product Dimensions	Φ122 mm × 113.5 mm (Φ4.80" × 4.47")
Net Weight	485 g (1.07 lb)
Gross Weight	650 g (1.43 lb)

Ordering Information

Type	Model	Description
5MP Camera	DH-IPC-HDW5541HP-AS-PV	5MP IR Fixed-focal Eyeball WizMind Network Camera, PAL
	DH-IPC-HDW5541HN-AS-PV	5MP IR Fixed-focal Eyeball WizMind Network Camera, NTSC
Accessories (Optional)	PFB203W	Wall Mount Bracket
	PFA137	Junction Box
	PFA130-E	Junction Box
	PFA152-E	Pole Mount Bracket
	PFA151	Corner Mount Bracket
	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

PFA137
Junction Box

PFA130-E
Junction Box

PFA152-E
Pole Mount
Bracket

PFA151
Corner Mount
Bracket

PFM321D
12 VDC 1A Power
Adapter

PFM900-E
Integrated
Mount Tester

TF-P100/256G
MicroSD
Memory Card

Junction Mount	Wall Mount	Pole Mount(Vertical)

Dimensions (mm[inch])

113.5 [4.47]

⌀122.0 [⌀4.8]

⌀84.0 [⌀3.31]

3-⌀4.5 [⌀0.18]