DH-IPC-HFW5842H-Z4HE-S2

8 MP IR Vari-focal Bullet 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.

Face Attributes

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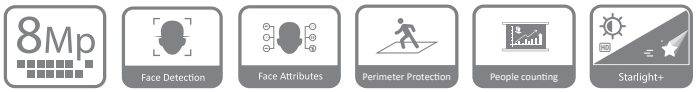
Perimeter Protection

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.

- 8-MP 1/1.8" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 8 MP (3840 × 2160) @30 fps.
- Max. IR distance: 120 m.
- ROI, SMART 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.
- Alarm: 3 in, 2 out; audio: 1 in, 1 out; RS-485, BNC, power output supports max. 256 G Micro SD card.
- 24 VAC/12 VDC/PoE power supply.
- ePoE, IP67, IK10 protection.
- SMD 3.0.
- Anti-corrosion model optional.



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.

ePoE

Dahua's innovative ePoE technology offers a new solution to transmit power and data over long distances between cameras and network switch, allowing more flexible design of surveillance system, improving reliability, reducing installation time and saving money. ePoE technology encompasses pure network systems where a single CAT6 cable can carry signals up to 300 m (984 ft) at 100 Mbps, 800 m (2625 ft) at 10 Mbps.

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 ±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	3840 (H) × 2160 (V)
ROM	128 MB
RAM	1 GB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.004 lux@F1.4 (Color, 30 IRE) 0.0004 lux@F1.4 (B/W, 30 IRE) 0 lux (Illuminator on)
S/N Ratio	>56 dB
Illumination Distance	120 m (393.7 ft)
Illuminator On/Off Control	Auto; manual; zoomprio
Illuminator Number	4 (IR LED)
Pan/Tilt/Rotation Range	Pan: 0-360° Tilt:0-90° Rotation:0-360°

Lens

Lens Type	Motorized vari-focal
Mount Type	Module
Focal Length	8 mm–32 mm
Max. Aperture	F1.4
Field of View	Horizontal: 42°–14.9° Vertical: 23.3°–8.6° Diagonal: 48.5°–16.9°
Iris Control	Hall
Close Focus Distance	W: 3 m (9.84 ft) T: 5.5 m (18.04 ft)

	Lens	Detect	Observe	Recognize	Identify
DORI Distance	W	213.6 m (700.8 ft)	85.4 m (280.2 ft)	42.7 m (140.1 ft)	21.4 m (70.2 ft)
	T	572.8 m (1879.3 ft)	229.1 m (751.6 ft)	114.6 m (376.0 ft)	70.2 m (188.0 ft)

Smart Event

IVS	Abandoned object; missing object
Heat Map	Yes

Professional, intelligent

IVS (Perimeter Protection)	Tripwire; intrusion; fast moving (the three functions support the classification and accurate detection of vehicle and human); loitering detection; people gathering; parking detection
SMD 3.0	Less false alarm, longer detection distance
Face Detection	Face detection; track; snapshot optimization; snapshot; face enhancement; face exposure; face matting setting: face, single inch photo; three snapshot methods: real-time snapshot, optimized snapshot, quality priority snapshot; face angle filter; optimization time setting
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.
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 the sub stream)
Smart Codec	Smart H.265+;Smart H.264+
AI Coding	AI H.265; AI H.264
Video Frame Rate	Main stream: 3840× 2160 (1 fps–25/30 fps) Sub stream: D1 (1 fps–25/30 fps) Third stream: 1080p (1 fps–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	3840 × 2160; 3072 × 2048; 3072 × 1728; 2592 × 1944; 2688 × 1520; 2048 × 1536; 2304 × 1296; 1080p (1920 × 1080); 1.3 MB (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
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 Stabilization	Electronic Image Stabilization (EIS)
Defog	Yes

Image Rotation	0°/90°/180°/270° (Support 90°/270° with 4 M resolution and lower)
Mirror	Yes
Privacy Masking	8 areas

Audio

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; defocus detection; scene changing; intrusion; tripwire; abandoned object; missing object; fast moving; parking detection; loitering detection; people gathering; input abnormal detection; intensity change detection; people counting; face detection; people counting in area; stay alarm; people No. exception detection; queue management

Network

Network Port	RJ-45 (10/100 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; 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 G); NAS
Browser	IE: IE8 and later 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: UL60950-1 CAN/CSA C22.2 No.60950-1-07,UL 50E NEMA Type 4X (optional)

Port

RS-485	1 (baud rate range:1200 bps–115200 bps)
Audio Input	1 channel (3.5 mm JACK port)
Audio Output	1 channel (3.5 mm JACK port)
Alarm Input	3 channels in: 5 mA 3–5 VDC
Alarm Output	2 channels out: 1,000 mA 30 VDC/500 mA 50 VDC

Power

Power Supply	12 VDC (±25%)/24 VAC (±30%)/PoE (802.3at)/ePoE
Power Consumption	Basic: 5.5 W (12 VDC); 6.0 W (24 VAC); 6.2 W (PoE) Max. (H.265 + 3 streams + Intelligence + IR on + heating): 15.9 W (12 VDC); 18.1 W (24 VAC); 18.7 W (PoE) Heating: 3.3 W (12 VDC); 4.4 W (24 VAC); 3.9 W (PoE)

Environment

Operating Temperature	–40 °C to +60 °C (–40 °F to +140 °F)/Less than 95% RH
Storage Temperature	–40 °C to +60 °C (–40 °F to +140 °F)
Protection	IP67, IK10

Structure

Casing	Metal + plastic
Product Dimensions	340.1 mm × 138.3 mm × 134.0 mm (13.39" × 5.44" × 5.28") (L × W × H)
Net Weight	1.6 kg (3.5 lb)
Gross Weight	2.4 kg (5.3 lb)

Ordering Information

Type	Model	Description
8MP Camera	DH-IPC-HFW5842H-Z4HE-S2	8 MP IR Vari-focal Bullet WizMind Network Camera
	IPC-HFW5842H-Z4HE-S2	8 MP IR Vari-focal Bullet WizMind Network Camera
Accessories	PFA154	Pole Mount Bracket
	PFA155A	Anti-corrosion Pole Mount Bracket
	PFM320D	12 VDC 2A Power Adapter
	LR1002-1ET/1EC	Single-port Long Reach Ethernet over Coax Extender
	PFM900-E	Integrated Mount Tester

Accessories

Optional:

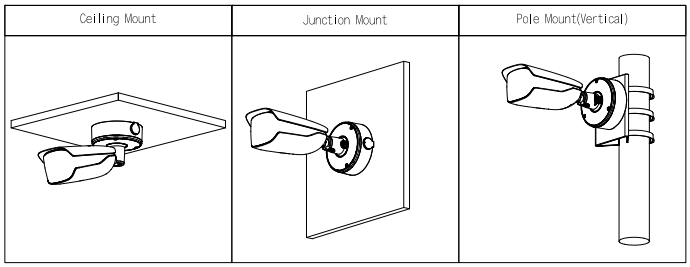
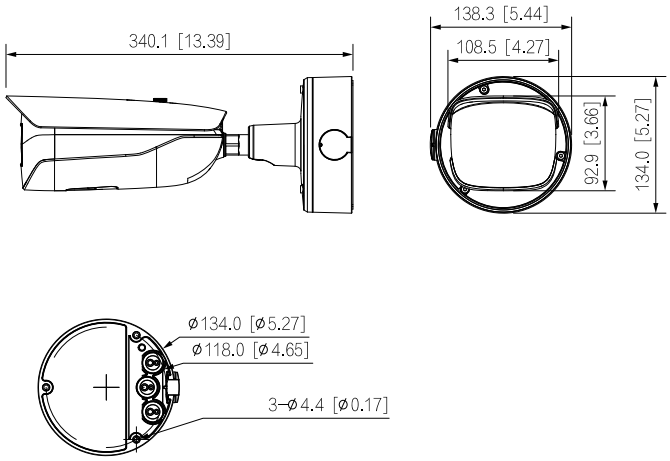
PFA154
Pole Mount
Bracket

PFA155A
Anti-corrosion Pole
Mount Bracket

PFM320D Series
12 VDC 2A
Power Adapter

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

PFM900-E
Integrated Mount
Tester



Dimensions (mm[inch])