DH-IPC-HFW5842DK1-Z4-5G

Dahua 8MP 5G Vari-focal Bullet WizMind Network Camera

WizMind

Launched by Dahua Technology, Dahua WizMind is a full portfolio of solutions composed of project-oriented products including IPC, IVSS, 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

Face Attributes

With deep learning algorithm, the network camera can recognize face attributes, such as gender, age, expression, glasses, mouth mask, and beard

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.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in warm light and IR LED, the max. IR distance is 120 m and the max. warm light distance is 60 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.
- Alarm: 3 in, 2 out; audio: 1 in, 1 out; RS-485, BNC, supports max. 512 G Micro SD card; built in dual MICs and speaker.
- 12 VDC power supply.
- 12 VDC power output, and max. current 165 mA, easy for installation.
- Supports multiple frequency bands for 5G that make it convenient to install and connect to the network.
- IP67 Protection.
- SMD 3.0

| 8Mp | 5G | Face Detection | Face Attributes | Perimeter Protection | People Counting |

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

5G

Equipped with built-in high-performance 5G mobile communication module, the network camera supports 5G network connection and two networking methods: Non-Standalone (NSA) and Standalone (SA). It is backward compatible with 4G connection (The module is different for band compatibility). It can be registered on the platform through wireless connection, and can transmit videos, pictures, intelligent feature information, and alarm events. Through the client, you can remotely monitor and operate in real time.

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	1/1.8" CMOS
Max. Resolution	3840 (H) × 2160 (V)
ROM	4 GB
RAM	1 GB
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	Up to 120 m (393.70 ft) (IR) Up to 60 m (196.85 ft) (Warm light)
Illuminator On/Off Control	Auto; Zoomprio; Manual
Illuminator Number	4 (IR LED); 4 (Warm light)

Lens

Lens Type	Motorized vari-focal
Lens Mount	Module
Focal Length	8 mm–32 mm
Max. Aperture	F1.6
Field of View	H: 42°–14.9° V: 23.3°–8.6° D: 48.5°–16.9°
Iris Control	Auto
Close Focus Distance	3 m (9.84 ft)

	Lens	Detect	Observe	Recognize	Identify
DORI Distance	W	213.6 m (700.79 ft)	85.4 m (280.18 ft)	42.7 m (140.09 ft)	21.3 m (69.89 ft)
	T	572.8 m (1879.27 ft)	229.1 m (751.64 ft)	114.5 m (375.66 ft)	57.28 m (187.93 ft)

*DORI (Detect, Observe, Recognize, Identify) is a standard system (EN-62676-4) for defining the ability of a person viewing the video to distinguish persons or objects within a covered area. The numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and commissioning manual/project design tool.

Intelligence

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
Heat Map	Yes

Smart Object Detection	Smart abandoned object; smart missing object
Face Detection	Face detection; track; snapshot; snapshot optimization; optimal face snapshot upload; face enhancement; face exposure; face attributes extraction including 6 attributes (gender, age, glasses, expressions, 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, 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 (Compression rate≥25%) AI H.264 (Compression rate≥25%)
Video Frame Rate	Main stream: 3840 × 2160@(1–25/30 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	3840 × 2160; 3072 × 2048; 3072 ×1728; 2592 × 1944; 2688 × 1520; 2560 × 1440; 2048 × 1536; 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–8192 kbps; H.265: 3 kbps–8192 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
Noise Reduction	3D NR
Motion Detection	OFF/ON (4 areas, rectangular)
Region of Interest (RoI)	Yes (4 areas)
Image Stabilization	Electronic Image Stabilization (EIS)
Smart Illumination	Yes
Defog	Yes
Image Rotation	0°/90°/180°/270° (Support 90°/270° with 4M resolution and lower)
Mirror	Yes

Privacy Masking	4 areas

Audio

Built-in MIC	Yes
Built-in Speaker	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; scene changing; audio detection; voltage detection; external alarm; face detection; security exception

Network

Network Port	RJ-45 (10/100 Base-T)
Frequency	5G: SA: N1/N3/N7/N8/N20/N28/N38/N40/N41/N75/N76/N77/N78 NSA: N1/N3/N7/N8/N20/N28/N38/N40/N41/N77/N78 Applicable regions: Europe, Australia, Middle East, Africa 4G: FDD-LTE: B1/B3 /B7 /B20 TDD-LTE: B41 Applicable regions: Europe, Australia, Middle East, Africa 3G: WCDMA: B1 /B8 Applicable regions: Europe, Australia, Middle East, Africa
SDK and API	Yes
Network Protocol	IPv4; IPv6; HTTP;TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; PPPoE; 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. 512 GB); NAS
Browser	IE: IE9 and later Chrome Firefox Safari: Safari 12 and later
Management Software	Smart PSS; DSS; DMSS
Mobile Client	iOS; Android
Certification	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 CE RED

Port

RS-485	1 (baud rate range:1200 bps–115200 bps)
Audio Input	1 channel (RCA port)
Audio Output	1 channel (RCA port)
Alarm Input	3 channels in: 5mA 3V–5V DC
Alarm Output	2 channels out: 300mA 12V DC

Power

Power Supply	12 VDC (±30%)
Power Consumption	Basic: 6.6 W (12 VDC) Max. (H.265 + WDR + max. stream + intelligence on+ illuminator on + active deterrence + vari-focal + power output): 20 W (12 VDC)

Environment

Operating Temperature	−30 °C to +60 °C (−22 °F to +140 °F)
Operating Humidity	≤95%
Storage Temperature	−40 °C to +60 °C (−40 °F to +140 °F)
Protection	IP67

Structure

Casing Material	Metal + plastic
Product Dimensions	281.3 mm × 171.8 mm × 191.7 mm (11.07" × 6.76" × 7.55") (L × W × H)
Net Weight	2074 g (4.57 lb)
Gross Weight	2290 g (5.05 lb)

Ordering Information

Type	Model	Description
8MP Camera	DH-IPC-HFW5842DK1P-Z-5G-FM16-0832	Dahua 8MP 5G Vari-focal Bullet WizMind Network Camera
	IPC-HFW5842DK1P-Z-5G-FM16-0832	8MP 5G Vari-focal Bullet WizMind Network Camera
Accessories (Optional)	PFB605W	Wall Mount Bracket
	PFB603C	Ceiling Mount Bracket
	PFA150	Pole Mount Bracket (Horizontal)
	PFM320D	12 VDC 2 A Power Adapter
	PFM900-E	Integrated Mount Tester
	TF-P100	MicroSD Memory Card
	PFA162	Housing Bracket

Accessories

Included:

PFB605W
Wall Mount
Bracket

Optional:

PFB603C
Ceiling Mount
Bracket

PFA150
Pole Mount Bracket
(Horizontal)

PFM320D
12 VDC 2 A Power
Adapter

PFM900-E
Integrated
Mount Tester

TF-P100
MicroSD
Memory Card

PFA162
Housing Bracket

Dimensions (mm[inch])

Ceiling Mount	Wall Mount(Default)	Pole Mount(Horizontal)

Pole Mount(Vertical)		