DH-IPC-HFW7842H-Z4-S2

8MP IR 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 advanced deep learning algorithm, Dahua WizMind 7 Series network camera supports various intelligent functions and satisfies the requirements in different scenes. The camera can accurately recognize person, vehicle, and non-motor vehicle, face, and liveness. This series camera has ultra starlight night version effect, and works with ultra-low stream. It supports dust-proof function, waterproof function and vandal-proof function, complying with the standards of IP67 and IK10 (Supported by some select models).

Functions

Smart H.265+ & Smart H.264+

With advanced scene-adaptive rate control algorithm, Dahua smart encoding technology realizes the higher encoding efficiency than H.265 and H.264, provides high-quality video, and reduces the cost of storage and transmission.

Starlight

With advanced image processing technology and optical technology, Dahua Starlight technology can provide clear colorful video in the environment of low illuminance. It widely applies to various environments of low illuminance.

Video Metadata

With deep learning algorithm, Dahua Video Metadata technology can detect, track, capture vehicle, non-motor vehicle and people, and select the best images, and extract attributes.

· 8-MP 1/1.8" CMOS image sensor, low luminance, and high definition image.

· Outputs max. 8 MP (3840 × 2160)@25/30 fps.

· H.265 codec, high compression rate, ultra-low bit rate.

· ROI, SMART H.264 +/H.265+, flexible coding, applicable to various bandwidth and storage environments.

· Built-in IR LED, and the max. illumination distance is 120 m.

· Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes.

· With deep learning algorithm, it supports video metadata, face detection,face recognition,people counting, perimeter protection,etc.

· Supports P-Iris, the camera can control the iris more precisely for better image effect.

· Alarm: 3 in, 2 out; audio: 1 in, 1 out; RS485, BNC, supports max. 256 G Micro SD card

· 12 VDC/24 VAC/PoE power supply (the power ports are different depending on the power supply).

· IP67, IK10 protection grade.

· 12V DC power output, max. current 165 mA , easy for installation

· Anti-corrosion coating(optional).

8Mp	Starlight	Video Metadata	IVS	People Counting	Face Recognition

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 reports to meet your requirements.

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 Recognition

Dahua Face Recognition technology extracts the features of captured faces and compares them with that in face database to recognize the person identity.

Cyber Security

Dahua network camera is equipped with a series of key security technologies, such as security authentication and authorization, access control, trusted protection, encrypted transmission, and encrypted storage, which improve its security defense and data protection, and prevent malicious programs from invading the device.

Technical Specification

Camera

Image Sensor	1/1.8" CMOS
Max. Resolution	3840 (H) × 2160 (V)
ROM	4 GB
RAM	2 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	120 m (393.70 ft)
Illuminator On/Off Control	Auto; Manual; Zoomprio
Illuminator Number	4 (IR LED)

Lens

Lens Type	Motorized vari-focal
Lens Mount	Module interface
Focal Length	8-32 mm
Max. Aperture	F1.6 (Constant)
Field of View	Horizontal: 40° (W)–15° (T) Vertical: 22° (W)–9° (T) Diagonal: 47° (W)–17° (T)
Iris Control	Auto; P-iris
Close Focus Distance	1.0 m (3.28 ft)

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	W	232 m (761.15 ft)	92.8 m (304.46 ft)	46.4 m (152.23 ft)	23.2 m (76.12 ft)
	T	590 m (1935.70 ft)	236 m (774.28 ft)	118 m (387.14 ft)	59 m (193.57 ft)

Smart Event

IVS	Abandoned object; missing object

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
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
Face Recognition	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 (recognition priority and optimization snapshot); face angle filter; optimization time setting. Support 5 face databases; register one by one or in batches; support face recognition similarity settings and face comparison on the basis of 100,000 face databases.
People Counting	Tripwire people counting and people counting in area; generating and exporting report (day/month/year); queue management and exporting report (day/month); 4 rules can be set for tripwire, people counting in area and queue management.
Video Metadata	Motor vehicle, non-motor vehicle, face, human detection; track; snapshot; snapshot optimization; optimal face snapshot upload. Motor vehicle attributes: license plate, vehicle type, vehicle color, vehicle logo, seatbelt, smoking, calling,etc. Non-motor vehicle attributes: type, color, number of people, top type and color ,helmet. Human body attributes: top/bottom type and color, bag, hat, gender, and umbrella. Face attributes: gender, age, expressions, glasses, face mask and beard.
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; MJPEG (Only supported by the sub stream)
Smart Codec	Smart H.265+; Smart H.264+
Video Frame Rate	Main Stream: 3840 × 2160 (1–25/30 fps) Sub stream: 704 × 576 (1–25 fps);704 × 480 (1–30 fps) Third stream: 1920 × 1080 (1–25/30 fps) Fourth stream: 1920 × 1080 (1–25/30 fps) Fifth stream: 704 × 576 (1–25 fps);704 × 480 (1–30 fps)
Stream Capability	5 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: 32 kbps–16384 kbps H.265: 12 kbps–9984 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)
Image Stabilization	Electronic Image Stabilization (EIS)

Smart Illumination	Yes
Defog	Yes
Image Rotation	0°/90°/180°/270° (Support 90°/270° with 2688 × 1520 resolution and lower)
Mirror	Yes
Privacy Masking	4 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; SD card durability warning; network disconnection; IP conflict; illegal access; security exception; motion detection; video tampering; tripwire; intrusion; fast moving; abandoned object; missing object; loitering detection; people gathering; parking detection; scene changing; audio detection; defocus detection; external alarm; face detection; video metedata; people counting in area; people counting; queue management

Network

Network Port	RJ-45 (10/100/1000 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; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; 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. 256 GB); NAS
Browser	With plug-in: IE: IE 8 and later Chrome: 45 and earlier Firefox: 46 and earlier Safari: 12 and earlier Without plug-in: Edge Chrome: 45 and later Firefox: 46 and later Safari: 12 and later
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: UL62368-1 & CAN/CSA C22.2 No. 62368-1-14; UL 50E NEMA Type 4X (optional)

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: 5 mA 3 V–5 VDC
Alarm Output	2 channels out: 1,000 mA 30 VDC/500 mA 50 VDC

Power

Power Supply	12 VDC/24 VAC/PoE+ (802.3at)
Power Consumption	Basic power consumption: 5.11 W (12 VDC); 6.82 W (24 VAC); 7.62 W (PoE) Max. power consumption (Max. stream + intelligent function + IR LED + focus): 16.8 W (12 VDC); 20.7 W (24 VAC); 21.3 W (PoE) Heat power consumption: 3.3 W (12 VDC); 5.5 W (24 VAC); 5.5 W (PoE)

Environment

Operating Conditions	–40 °C to +65 °C (–40 °F to +149 °F)/Less than 95% RH
Storage conditions	–40 °C to +65 °C (–40 °F to +149 °F)
Protection Grade	IP67, IK10, Anti-Corrosion Protection: NEMA 4X (optional)

Structure

Product Dimensions	340.1 mm × 108.5 mm × 92.9 mm (13.39" × 4.27" × 3.66") (L × W × H)
Net Weight	1.54 kg (3.40 lb)
Gross Weight	2.44 kg (5.38 lb)
Gross Weight	1.28 kg (2.82 lb)

Ordering Information

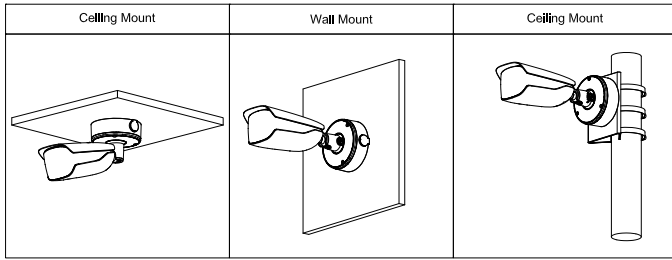| Type	Model	Description
8MP Camera	DH-IPC-HFW7842H-Z4-S2	8MP IR Bullet WizMind Network Camera
	IPC-HFW7842H-Z4-S2	8MP IR Bullet WizMind Network Camera
Accessories (Optional)	PFA154	Pole Mount
	PFM320D	12 VDC 2A Power Adapter
	PFM900-E	Integrated Mount Tester
	TF-P100	MicroSD Memory Card

Accessories

Optional:

PFA154
Pole Mount

PFM320D
12 VDC 2A
Power Adapter

PFM900-E
Integrated
Mount Tester

TF-P100
MicroSD
Memory Card

Ceiling Mount	Wall Mount	Ceiling Mount

Dimensions (mm[inch])

340.1 [13.39]

138.3 [5.44]
108.5 [4.27]
92.9 [3.66]
134.0 [5.27]

⌀134.0 [⌀5.27]
⌀118.0 [⌀4.65]
3–⌀4.4 [⌀0.17]