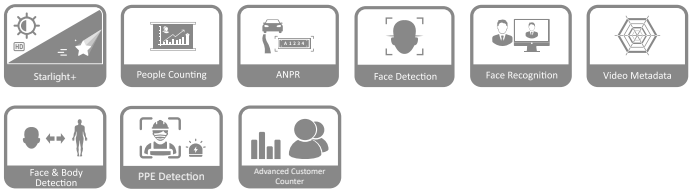
DH-IPC-HFW7842H-Z

8MP IR Bullet WizMind Network Camera

- 8MP, 1/1.8" CMOS image sensor, low illuminance, high image definition
- Max outputs 8MP (3840 × 2160) @25fps/30fps, 2MP@50/60fps
- H.264&H.265 coding, high compression ration · Wide dynamic, day/night, 3D NR, AWB, HLC, BLC
- ROI, SVC, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments
- With deep learning algorithm, it supports people counting, face detection, perimeter protection etc
- Alarm: 3 in, 2 out; audio: 1 in, 1 out; RS-485; BNC; supports max. 256 G SD card
- 24V AC/12V DC/PoE power supply (the power ports are different depending on the power supply)
- Five streams for three-channel HD video
- IP67, IK10 protection grade
- Anti-corrosion coating(optional)
- 12V DC power output, max. current 165mA , easy for installation



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, ANPR, 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

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.

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.

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. The camera can count targets by directions (A>B, B>A, or A< >B), and export the report.

Face and Human Body Association

With deep learning algorithm, Dahua Face and Human Body Association technology detects face and human body of one person, captures them separatedly, selects the best image, and then associates them.

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.

Advanced Customer Counter

With Advanced Customer Counter, the camera can remove staff and returning customers from your store traffic count. It enables managers to build a full picture of the number and groups of customers.

PPE Detection

With the PPE Detection function, the camera can detect attributes including face masks, helmets, glasses, safety vests, and the color of tops and bottoms, and determine whether PPE requirements are met. Match attributes alarm or mismatch attributes alarm can be triggered according to the alarm settings.

ePoE

Dahua ePoE technology provides a new way to accomplish long distance transmission between IP camera and network switch. It allows more flexible surveillance system design, improves reliability and saves construction and wiring cost.

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.

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.

ANPR

With high-performance GPU chip, deep learning algorithm, and lots of sample training learning, Dahua ANPR technology can automatically collect and recognize the vehicle information, including license plate, logo, vehicle type, and vehicle color.

Technical Specification

Camera

Image Sensor	1/1.8”8Megapixel progressive CMOS
Effective Pixels	3840 (H) × 2160 (V)
ROM	4 GB
RAM	2 GB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100000 s
Min. Illumination	0.003 Lux@F1.2 (Color, 30IRE) 0.0003 Lux@F1.2 (B/W, 30IRE) 0 Lux (Illuminator on)
S/N Ratio	> 56 dB
Illumination Distance	60 m (196.85 ft)
Illuminator On/Off Control	Auto/Manual
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 interface
Focal Length	2.7 mm–12 mm
Max. Aperture	F1.2
Field of View	Horizontal: 114°(W)–47°(T) Vertical: 59°(W)–27°(T) Diagonal: 141° (W–55°(T)
Iris Type	Auto; Precise iris control
Close Focus Distance	W: 1 m (3.28ft) T: 2.5 m (8.20ft)

	Lens	Detect	Observe	Recognize	Identify
DORI Distance	W	87.2 m (286.09 ft)	34.9 m (114.50 ft)	17.4 m (57.09 ft)	8.7 m (28.54 ft)
	T	186.7 m (612.53 ft)	74.7 m (245.07 ft)	37.3 m (122.38 ft)	18.6 m (61.02 ft)

Smart event

IVS	Abandoned object, moving object

Professional, intelligent

IVS (Perimeter Protection)	Tripwire, intrusion, fast moving (the three functions support the classification and accurate detection of vehicle and human); parking detection, loitering detection, and people gathering.
Face Detection	Face detection, track, priority, snapshot,Upload Optimized snapshot picture; face enhancement, face exposure, face attribute extract, 6 attributes and 8 expressions: Gender, age, glasses, expressions (anger, sadness, disgust, fear, surprise, calm, happiness and confusion), Mouth mask, beard; Face matting setting: face, single inch photo Three snapshot; methods: real-time snapshot, priority snapshot, quality priority; Face angle filter Priority time setting; Support Duration Optimal,Non-living Filtering;
Face Recognition	There are two models: General mode and counting mode. General mode: Face detection; track; snapshot; snapshot optimization; face enhancement; face exposure; face attribute extraction including 6 attributes (gender, age, glasses, expressions, mask and beard) and 8 expressions (anger, calm, happiness, sadness, disgust, surprise, confusion and fear); supports up to 5 face databases with 50,000 face pictures in total; supports non-living filtering Counting mode: Offers advanced customer counter, filtering of specified face database, and exporting of reports before and after removing duplicate faces.
Face and Body Detection	There are two modes: General mode and PPE Detection. General mode: Supports enabling face detection and human detection at the same time, and alarms can be triggered. PPE Detection: Supports PPE detection, can detect attributes including face mask, safety helmet, glasses, and safety vest, top color and bottom color, and determine whether PPE requirements are met. Alarms can be triggered according to the alarm settings.
ANPR	ANPR, track, priority, snapshot Vehicle attributes: License plate, vehicle type, vehicle color Other attributes: Seat belt, smoking, phoning
Video Metadata	Supports human body, human face, motor vehicle and non-motor vehicle image capture, attributes extraction, counting targets by directions (A>B, B>A, or A< >B), and exporting the report.
People Counting	Support tripwire number counting, people counting in area, and displaying and outputting yearly/monthly/daily reports.Support queue management, and displaying and outputting monthly/daily reports. Support 4 tripwire rules configuration, people counting in 4 areas, and 4 queue management functions
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 sub stream)
Smart Codec	Smart H.265+/ Smart H.264+
Video Frame Rate	Main Stream: 3840 × 2160 (1–25/30 fps),2mp@60fps Sub stream: 704 × 576 (1–25fps);704 × 480 (1–30fps) Third stream: 1920 × 1080 (1–25/30 fps) Fourth stream: 1920 × 1080 (1–25/30 fps) Fifth stream: 704 × 576 (1–25fps);704 × 480 (1–30fps)
Stream Capability	5 streams

Resolution	8M (3840 × 2160), 6M (3072 × 2048/3072 × 1728), 5M (2592 × 1944), 4M (2688 × 1520), 3M (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: 32 kbps-16384 kbps H.265: 12 kbps-16384 kbps
Day/Night	Auto (ICR)/Color/B/W
BLC	Yes
HLC	Yes
WDR	120 dB
Scene Self-adaptation	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)
Electronic Image Stabilization(EIS)	Yes
Smart Illumination	Yes
Defog	Yes
Image Rotation	0°/90°/180°/270° (Supports 90°/270° with 2688 × 1520 resolution and lower)
Mirror	Yes
Privacy Masking	8 areas

Audio

Audio Compression	G.711a; G.711Mu; G726; 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; defocus detection; external alarm; face detection; people counting in area; stay alarm; people counting; people counting exception detection; safety exception; queue management; face & body detection; face & body detection (match attributes alarm); face & body detection (mismatch attributes alarm); face recognition

Network

Network	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
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; Bonjour
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; Milestone; Genetec; P2P;RTMP
User/Host	20(Total bandwidth: 160M)
Storage	FTP; Micro SD card (256 G); NAS; SFTP
Browser	IE: IE9 and later Chrome: Chrome 42 and later Firefox: Firefox 48.0.2 and later
Management Software	Smart PSS; DSS; DMSS
Mobile Phone	IOS, Android

Certification

Certifications	CE-LVD: EN62368-1,EN60950-22 (optional) 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	Audio Interface: 1/1 channel In/Out
Audio Output	
Alarm Input	3 channel In: 5mA 5V DC 2 channel Out: 1000mA 30V DC/500mA 50V AC
Alarm Output	

Power

Power Supply	12V DC/24V AC/PoE+ (802.3at); ePoE
Power Consumption	Basic power consumption: 3.7W (12V DC); 5.7W(24V AC); 5.5W (PoE) Max. power consumption (Max. stream + intelligent function + IR LED + focus): 12.2W (12V DC);17.3W(24V AC); 17.1W (PoE) Heat power consumption: 3.3W (12V DC);5.5W(24V AC); 5.5W (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

Casing	Metal + Plastic
Dimensions	340.1 mm × 108.5 mm × 92.9 mm (13.39" × 4.27" × 3.66") (L × W × H)
Net Weight	1600 g (3.53 lb)
Gross Weight	2400 g (5.29 lb)

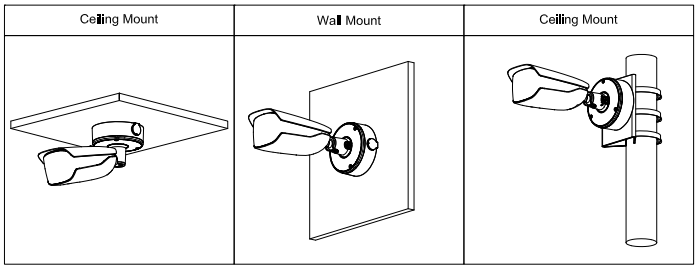
Ordering Information

Type	Part Number	Description
8MP Camera	DH-IPC-HFW7842HP-Z	8MP IR Bullet WizMind Network Camera,PAL
	IPC-HFW7842HP-Z	8MP IR Bullet WizMind Network Camera,PAL
	DH-IPC-HFW7842HN-Z	8MP IR Bullet WizMind Network Camera,NTSC
	IPC-HFW7842HN-Z	8MP IR Bullet WizMind Network Camera,NTSC
Accessories (optional)	PFA154	Pole Mount

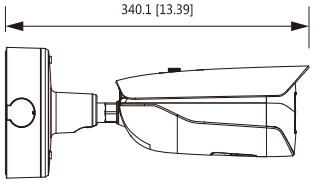
Accessories

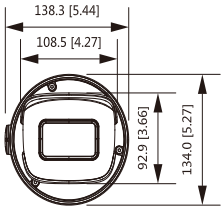
Optional:

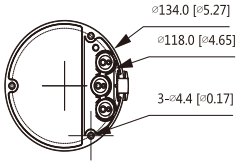
PFA154



Dimensions (mm/inch)







Rev 001.001

© 2021 Dahua. All rights reserved. Design and specifications are subject to change without notice.
Pictures in the document are for reference only, and the actual product shall prevail.