DH-IPC-HFW7442H-Z4

4MP 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, 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).

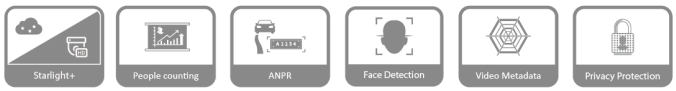
Functions

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.

- 4MP, 1/1.8" CMOS image sensor, low illuminance, high image definition
- Max outputs 4MP (2688×1520) @50 fps/60 fps
- 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 detec tion, 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
- 12V DC power output, max. current 165mA , easy for installation



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.

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.

Privacy Protection
Dahua Privacy Protection technology can mask the detected face and human body to protect the privacy of some special targets.

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" 4Megapixel progressive CMOS
Max. Resolution	2688 (H) × 1520 (V)
ROM	4 GB
RAM	2 GB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100000 s
Min. Illumination	0.001 Lux@F1.6
S/N Ratio	> 56 dB
Illumination Distance	120m (393.70 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	8 mm–32 mm
Max. Aperture	F1.6(Constant F1.6 throughout the zoom range)
Field of View	Horizontal: 40° (W)–15° (T) Vertical: 23° (W)–9° (T) Diagonal: 46° (W)–18° (T)
Iris Type	Auto;Precise iris control
Close Focus Distance	W: 2.5 m (8.20 ft) T: 6 m (19.69 ft)

	Lens	Detect	Observe	Recognize	Identify
DORI Distance	W	151 m (495.4 ft)	60.7 m (199.15 ft)	30.3 m (99.41 ft)	15.1 m (49.54 ft)
	T	400 m (1312.34 ft)	160 m (524.93 ft)	80 m (262.47 ft)	40 m (131.23 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;
ANPR	ANPR, track, priority, snapshot Vehicle attributes: license plate, vehicle type, vehicle color,vehicle brand Other attributes: sun visor, seat belt, smoking, phoning, in-car accessories, annual vehicle inspection mark
Video Metadata	Support human body, human face, motor vehicle and non-motor vehicle image capture and attributes extraction.
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: 2688 × 1520 (1–50/60 fps) 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	4M (2688 × 1520), 3M (2304 × 1296), 1080 (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–10240 kbps H.265: 12 kbps–10240 kbps
Day/Night	Auto (ICR)/Color/B/W
BLC	Yes
HLC	Yes
WDR	140 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° (Support 90°/270° with 1080p resolution or below.)
Mirror	Yes

Privacy Masking	4 areas

Audio

Audio Compression	G.711a; G.711Mu; G726; AAC; 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

Network

Network	RJ-45 (10/100/1000 Base-T)
SDK and API	Yes
Protocol	HTTP; Https; 802.1x; TCP; ARP; RTSP; RTP; UDP; RTCP; SMTP; FTP; DHCP; DNS; DDNS; PPPoE; IPv4/v6; SNMP; QoS; UPnP; NTP; SFTP; RTMP; Genetec;Bonjour ; Multicast
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; Milestone; Genetec; P2P;RTMP
User/Host	20(Total bandwidth: 80M)
Storage	FTP; Micro SD card (256 G); NAS; SFTP;Dahua Cloud
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 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

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
Alarm Output	2 channel Out: 1000mA 30V DC/500mA 50V AC

Power

Power Supply	12V DC/24V AC/PoE+ (802.3at)
Power Consumption	<17.3W

Environment

Operating Conditions	-40°C to +60°C (-40°F to +140°F)/Less than 95% RH
Storage conditions	-40°C to +60°C (-40°F to +140°F)
Protection Grade	IP67, IK10

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	1600g (3.53 lb)
Gross Weight	2400g (5.29 lb)

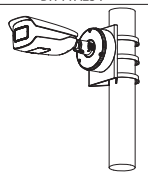
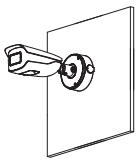
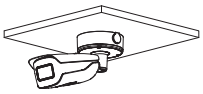
Ordering Information

Type	Part Number	Description
4MP Camera	DH-IPC-HFW7442HP-Z4	4MP IR Bullet WizMind Network Camera,PAL
	IPC-HFW7442HP-Z4	4MP IR Bullet WizMind Network Camera,PAL
	DH-IPC-HFW7442HN-Z4	4MP IR Bullet WizMind Network Camera,NTSC
	IPC-HFW7442HN-Z4	4MP IR Bullet WizMind Network Camera,NTSC
Accessories (optional)	PFA154	Pole Mount

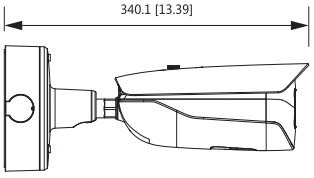
Accessories

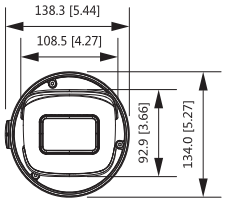
Optional:

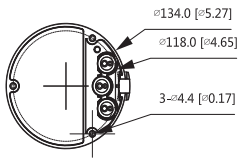
PFA154

Pole Mount	Wall-Mount	Junction Mount
DH-PFA154		
		

Dimensions (mm/inch)







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