

DH-IPC-HFW7442H-Z4VH

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

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.

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.

- 4MP, 1/1.8" CMOS image sensor, low illuminance, high definition image.
- 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 ANPR, parking space management, video metadata, perimeter protection.
- Alarm: 3 in, 2 out; audio: 1 in, 1 out; RS-485; BNC; supports max. 256 G SD card.
- 24 VAC /12 VDC/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)
- 12 VDC power output, max. current 165mA , easy for installation.



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.

Privacy Protection

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

Parking Space Management

With Parking Space Management, the camera can count the number of parked vehicles and parking spaces available in outdoor parking lots and planned parking lots. It can extract and display the status of parking spaces, so as to facilitate the management of parking spaces and improve parking efficiency.

Technical Specification

Camera

Image Sensor	1/1.8" CMOS
Max. Resolution	2688 (H) × 1520 (V)
ROM	4 GB
RAM	2 GB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.001 lux@F1.6 (Color, 30 IRE) 0.0002 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
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)				
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)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	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.
ANPR	ANPR, track, priority, snapshot Vehicle attributes: License plate, vehicle type, vehicle color Other attributes: Seat belt, smoking, phoning Support up to 10,000 blacklist records and 10,000 allowlist records. The camera can recognize plate numbers of vehicles moving at speeds of up to 60 km/h.

Video Metadata	Support 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.
Parking Space Management	Manage outdoor and planned parking lots; manage parking spaces in multiple areas; display the total number of parking spaces and parking spaces that are available; trigger alarms based on a predefined number of vehicles.
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 (1–25 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 (1–25fps);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–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 (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)
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 disconnected, IP conflict, motion detection, video tempering detection, tripwire, intrusion, abandoned object, missing object, scene changing, audio abnormal, defocus detection, loitering detection, people gathering, fast moving, parking detection, ParkingLimitDetection, video metadata, external alarm, illegal access and safety abnormality.
-------------	---

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: 80M)
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 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 (3.5 mm JACK head)
Audio Output	1 channel (3.5 mm JACK head)
Alarm Input	3 channels in: 5mA 3V–5 VDC
Alarm Output	2 channels out: 1,000mA 30 VDC/500mA 50 VAC

Power

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

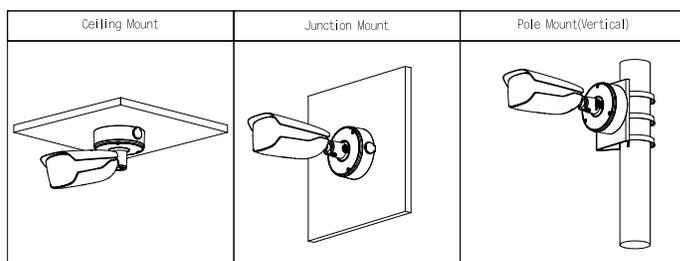
Type	Part Number	Description
4MP Camera	DH-IPC-HFW7442H-Z4VH	4MP IR Bullet WizMind Network Camera, PAL
	IPC-HFW7442H-Z4VH	4MP IR Bullet WizMind Network Camera, PAL
Accessories (optional)	PFA154	Pole Mount

Accessories

Optional:



PFA154



Dimensions (mm[inch])

