DH-IPC-HDBW5442H-ZE

4MP Vari-focal Dome 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 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.

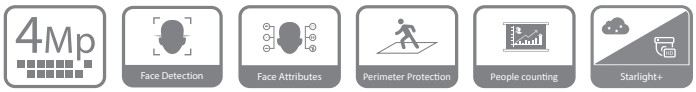
Face Attributes

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.

- 4MP, 1/1.8" CMOS image sensor, low illuminance, high image definition
- Outputs max. 4MP (2688 × 1520) @30 fps
- Max. IR distance: 40 m
- ROI, SVC, 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; supports max. 256 G Micro SD card
- 24V AC/PoE/12V DC power supply (power input ports vary depending on power supply)
- ePoE, IP67, IK10 protection
- Anti-corrosion coating (optional)
- Supports junction box mount
- SMD 3.0



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.

ePoE

Dahua's innovative ePoE technology offers a new solution to transmit power and data over long distances between cameras and network switch, allowing more flexible design of surveillance system, improving reliability, reducing installation time and saving money. ePoE technology encompasses pure network systems where a single CAT6 cable can carry signals up to 300 m (984 ft) at 100 Mbps, 800 m (2625 ft) at 10 Mbps.

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.

Protection(IP67, IK10, 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.
IK10: The enclosure can stand the punch more than 5 times from a 5 kg hammer falling from a height of 40 cm (Impact energy is 20J).
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	2688 (H) × 1520 (V)
ROM	128 MB
RAM	1 GB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.003 Lux@F1.8 (Color, 30IRE) 0.0003 Lux@F1.8 (B/W, 30IRE) 0 Lux (Illuminator on)
S/N Ratio	>56 dB
Illumination Distance	40 m (131.2 ft) (IR LED)
Illuminator On/Off Control	Auto/Manual
Illuminator Number	3 (IR LED)
Pan/Tilt/Rotation Range	Pan: 0°–355° Tilt: 0°–80° Rotation: 0°–355°

Lens

Lens Type	Motorized vari-focal
Mount Type	ϕ14
Focal Length	2.7 mm–12 mm
Max. Aperture	F1.8
Field of View	Horizontal: 107°–44° Vertical: 69°–29° Diagonal: 134°–53°
Iris Type	Auto
Close Focus Distance	W/T: 1.2 m (3.9 ft)

	Lens	Detect	Observe	Recognize	Identify
DORI Distance	W	57.0 m (131.2 ft)	23.0 m (75.5 ft)	11.0 m (36.1 ft)	5.7 m (18.7 ft)
	T	130.7 m (428.8 ft)	52.0 m (170.6 ft)	26.0 m (85.3 ft)	13.0 m (42.7 ft)

Smart Event

IVS	Abandoned object; missing object
Heat Map	Yes

Professional, intelligent

IVS (Perimeter Protection)	Tripwire; intrusion; fast moving (the three functions support the classification and accurate detection of vehicle and human); loitering detection; people gathering; parking detection
Face Detection	Face detection; track; optimization; snapshot; report high quality picture; face enhancement; face exposure; face attribute extract, 6 attributes and 8 expressions: Gender, age, glasses, expressions (anger, calm, happiness, sadness, disgust, surprise, confusion and fear), mask, beard; face matting setting: face, single inch photo; three snapshot methods: real-time snapshot, optimization snapshot, quality priority; face angle filter; optimization time setting
People Counting	Support the counting of enter number, leave number and pass number, and displaying and outputting yearly/monthly/daily reports. Support the counting of number in area, and 4 rules configuration. Count number of people or stay time and link alarm. Support queue management, and 4 rules configuration. Count number of people or stay time and link alarm.
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 the sub stream)
Smart Codec	Smart H.265+/H.264+
Video Frame Rate	Main stream: 2688 × 1520 (1 fps–25/30 fps) /1920 × 1080 (1 fps–50/60 fps) Sub stream: D1 (1 fps–50/60 fps) Third stream: 1080p (1 fps–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	2688 × 1520; 2560 × 1440; 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–8192 kbps H.265: 32 kbps–8192 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)
Region of Interest (RoI)	Yes (4 areas)
Electronic Image Stabilization (EIS)	Yes
Smart Illumination	Yes
Defog	Yes
Image Rotation	0°/90°/180°/270°
Mirror	Yes
Privacy Masking	8 areas

Audio

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; defocus detection; scene changing; intrusion; tripwire; abandoned object; missing object; fast moving; parking detection; loitering detection; people gathering; input abnormal detection; intensity change detection; people counting; face detection; people counting in area; stay alarm; people No. exception detection; queue management

Network

Network	RJ-45 (10/100 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; 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; Genetec; P2P
User/Host	20 (Total bandwidth: 80 M)
Storage	FTP; SFTP; Micro SD card (support max. 256 G); NAS
Browser	IE: IE8 and later Chrome Firefox
Management Software	Smart PSS; DSS; DMSS
Mobile Phone	IOS; Android

Certification

Certification	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: UL60950-1 CAN/CSA C22.2 No.60950-1-07, UL 50E NEMA Type 4X (optional)

Port

Audio Input	1 channel (terminal)
Audio Output	1 channel (terminal)
Alarm Input	3 channels in: 5mA 3V–5V DC
Alarm Output	2 channels out: 300mA 12V DC

Power

Power Supply	12V DC (±25%)/24V AC (±30%)/PoE (802.3af)/ePoE
Power Consumption	Basic power consumption: 3.6W (12V DC); 3.1W (24V AC); 4.4W (PoE) Max. power consumption (H.265 + max. stream + intelligent function + IR LED + focus): 11.7W (12V DC); 11.3W (24V AC); 11.9W (PoE)

Environment

Operating Conditions	–30°C to +60°C (–22°F to +140°F)/Less than 95% RH
Strorage Conditions	–40°C to +60°C (–40°F to +140°F)
Protection Grade	IP67, IK10, Anti-Corrosion Protection: NEMA 4X (optional)

Structure

Casing	Metal
Dimensions	129.1 mm × Φ157.9mm (5.1"× Φ6.2")
Net Weight	1500.0 g (3.3 lb)
Gross Weight	1600.0 g (3.5 lb)

Ordering Information

Type	Model	Description
4MP Camera	DH-IPC-HDBW5442HP-ZE	4MP Vari-focal Dome WizMind Network Camera , PAL
	DH-IPC-HDBW5442HN-ZE	4MP Vari-focal Dome WizMind Network Camera , NTSC
	IPC-HDBW5442HP-ZE	4MP Vari-focal Dome WizMind Network Camera , PAL
	IPC-HDBW5442HN-ZE	4MP Vari-focal Dome WizMind Network Camera , NTSC
Accessories (Optional)	PFA773	Wall Mount
	PFB211W	Pole Mount
	PFA152-E	Pole Mount
	PFA101	Ceiling Mount
	PFB300C	Ceiling Mount
	PFM900-E	Integrated Mount Tester
	PFM321D	12V 1A Power Adapter
	TF-P100	MicroSD Memory Card

Accessories

Optional

PFA773
Wall Mount

PFB211W
Pole Mount

PFA152-E
Pole Mount

PFA101
Ceiling Mount

PFB300C
Ceiling Mount

PFM900-E
Integrated Mount Tester

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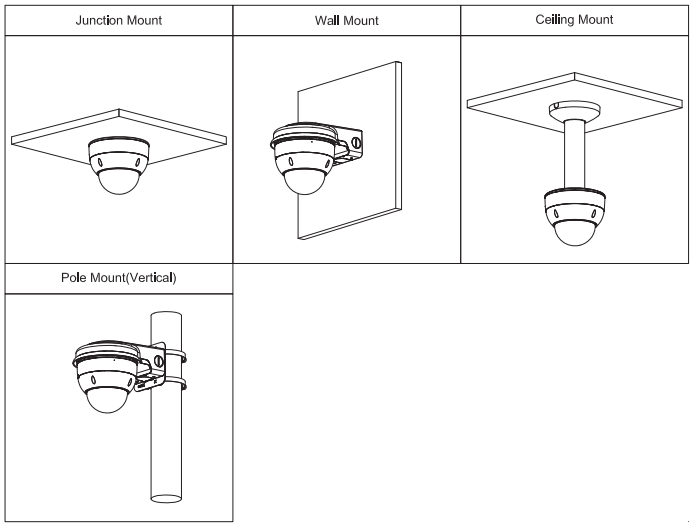
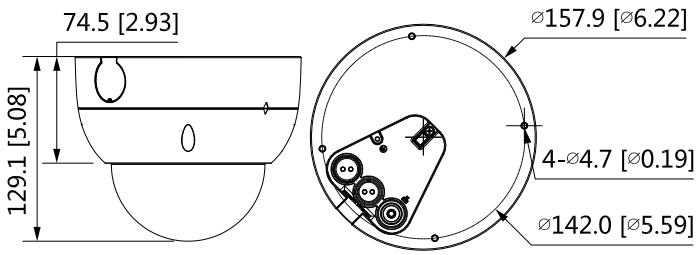
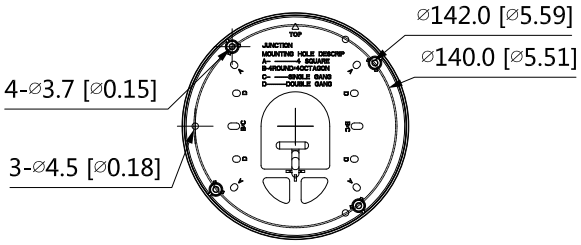


Dimensions (mm[inch])





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