



DH-IPC-HFW5442H-Z4HE

4MP IR Vari-focal Bullet WizMind Network Camera







Launched by Dahua Technology, Dahua WizMind is a full portfolio of solutions composed of project-oriented products including IPC, IVSS,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

Driven by deep learning algorithms, Dahua WizMind S Series network camera offers a variety of intelligent functions that greatly improve the accuracy of audio and video analysis. It supports video metadata, smart sound detection, face detection, perimeter protection, people counting and more. The camera also adopts advanced image processing Al-Powered Image technology and has the Deeplight night vision effect. The camera is dustproof, waterproof and vandal-proof, and is certified as IP67 and IK10 (the type of protection varies depending on the model).

Functions

AI-Powered Image

With AI ISP technology, the camera is able to easily adapt to scenes, producing high quality images that reveal the fine details of targets.

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.

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.

Smart Sound Detection

With deep learning algorithms, Dahua Smart Sound Detection technology can detect and identify the sound of screams, glass breaking, and more.

* The parameters and datasheets below can only be applied to 5442-Z-S3 series.

- 4-MP 1/1.8" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 4 MP (2688×1520) @25/30 fps.
- Built-in IR LED, and the max. illumination distance is 120 m.
- ROI, SVC, SMART H.264+/H.265+, AI H.264/H.265, encoding after filter, flexible coding, applicable to various bandwidth and storage environments.
- Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes.
- · With deep learning algorithm, it supports: video metadata, smart sound detection, IVS, face detection, smart object detection, and people counting, etc.
- · Alarm: 3 in, 2 out; audio: 1 in, 1 out; RS-485; analog output; power output; supports max. 512 G Micro SD card, built-in dual Mic.
- 24 VAC/12 VDC/PoE power supply; ePoE.
- IP67 and IK10 protection, heater.
- SMD 3.0.
- · Anti-corrosion model optional













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.

Cyber Security

Dahua network cameras employ a series of security technologies, including security authentication and authorization, access control protocols, trusted protection, encrypted transmission and encrypted storage. These technologies improve the camera's defense against external cyber threats and prevent malicious programs from compromising 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 work normally 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							AISSA	Yes
Camera								Face detection; track; snapshot; snapshot optimization;
Image Sensor		1/1.8" CMOS					Face Detection	optimal face snapshot upload; face enhancement; face exposure; face attributes extraction including 6 attributes and 8 expressions; face snapshot set as face, one-inch photo or custom; snapshot strategies (real-time snapshot, quality priority and optimization snapshot);
Max. Resolution		2688 (H) × 1520 (V)						
ROM		4 GB						face angle filter; optimization time setting. Tripwire people counting, generating and exporting
RAM		1 GB					People Counting	report (day/week/month/year); people counting in area and queue management, generating and exporting
Scanning System		Progressive						report (day/week/month); 4 rules can be set for tripwire, people counting in area and queue management.
Electronic Shutter Speed		Auto/Manual 1/3 s-1/100,000 s					Heat Map	Yes
Min. Illumination		0.0007 lux@F1.6 (Color, 30 IRE) 0.0004 lux@F1.6 (B/W, 30 IRE) 0 lux (Illuminator on)						Motor vehicle, non-motor vehicle, face, human body detection; track; snapshot; snapshot optimization; optimal face snapshot upload. Motor vehicle attributes: vehicle type, vehicle color,
S/N Ratio		>56 dB					Video Metadata	vehicle logo and other attributes: seatbelt, smoking, calling. Non-motor vehicle attributes: type, color, number of people, top type and color, hat.
Illumination	Distance	Up to 120 m (393.70 ft) (IR)						
Illuminator On/Off Control		Auto; Zoomprio; Manual						Human body attributes: gender, top/bottom type and color, bag, hat and umbrella. Face attributes: gender, age, expressions, glasses, face mask and beard.
Illuminator Number		4 (IR LED)						
Angle Adjustment		Pan: 0-360° Tilt: 0-90° Rotation: 0-360°					Smart Search	Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos
Lens							Smart Sound Detection	Yes
Lens Type		Motorized vari-focal					Video	
Lens Mount		Module					Video Compression	H.265; H.264; H.264H; H.264B; MJPEG (Only supported by the sub stream)
Focal Length		8 mm-32 mm					Smart Codec	Smart H.265+; Smart H.264+
Max. Aperture		F1.6					Al Coding	AI H.265; AI H.264
Field of View		H: 43°-15°; V: 24°-9°; D: 50°-17°					Video Frame Rate	Main stream: 2688 × 1520 (1 fps–25/30 fps) /1920 × 1080 (1 fps–50/60 fps) Sub stream: D1@ (1–25/30 fps) Third stream: 1080p@ (1–25/30 fps) Fourth stream: 720p@ (1–25/30 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.
Iris Control		Auto						
Iris Control T	Гуре	P-Iris						
Close Focus Distance		1.5 m (4.92 ft)						
	Lens	Detect	Observe	Recognize	Identify		Stream Capability	4 streams
	W	147.3 m (483.27 ft)	58.9 m (193.24 ft)	29.5 m (96.78 ft)	14.7 m (48.23 ft)		Resolution	4M (2688 × 1520); 3.6M (2560 × 1440); 3M (2048 × 1536); 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)
DORI Distance	Т	395.0 m (1295.93 ft)	158.0 m (518.37 ft)	79.0 m (259.19 ft)	39.5 m (129.59 ft)			
			ognize, Identify		•		Bit Rate Control	CBR/VBR
	video to disti	nguish persons	e ability of a pe or objects with	in a covered ar	rea. The		Video Bit Rate	H.264: 32 kbps–16384 kbps; H.265: 12 kbps–11008 kbps
	For intelligen	numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and commissioning manual/project design tool.					Day/Night	Auto(ICR)/Color/B/W
Intelligence				BLC	Yes			
Tree ingeri		Intrusion, tripwire, fast moving (the three functions					HLC	Yes
IVS (Perimeter Protection)		support the classification and accurate detection of vehicle and human); loitering detection, people					WDR	140 dB
Smart Object Detection		gathering, and parking detection Smart abandoned object; smart missing object					Scene Self-adaptation (SSA)	Yes
SMD		SMD 3.0					White Balance	Auto; natural; street lamp; outdoor; manual; regional custom
		Uses deep learning algorithms and works with back-end devices to accurately match targets, such as people and motor vehicles, and search through live and recorded					Gain Control	Auto
AcuPick							Noise Reduction	3D NR

Noise Reduction

3D NR

videos to quickly locate targets.

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 4M (2688×1520)resolution and lower)	
Mirror	Yes	
Privacy Masking	8 areas	
Audio		
Built-in MIC	Yes, built-in dual Mic	
Audio Compression	G.711a; G.711Mu; PCM; 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; tripwire; intrusion; fast moving; abandoned object; missing object; loitering detection; people gathering; parking detection; scene changing; audio detection; voltage detection; external alarm; face detection; video metadata; SMD; people counting in area; stay detection; people counting; people number error detection; queue people number alarm; queue time alarm; security exception	
Network		
Network Port	RJ-45 (10/100 Enhancement Base-T)	
SDK and API	Yes	
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; P2P	
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI	
User/Host	20 (Total bandwidth: 80 M)	
Storage	FTP; SFTP; Micro SD card (support max. 512 GB); NAS	
Browser	IE: IE 9 and later Chrome: Chrome 102 and later Firefox: Firefox 88 and later	
Management Software	SmartPSS Lite; DSS; DMSS	
Mobile Client	iOS; Android	
Cyber Security	Configuration encryption;Trusted execution;Digest;Security logs;WSSE;Account lockout;syslog;Video encryption;802.1x;IP/MAC filtering;HTTPS;Trusted upgrade;Trusted boot;Firmware encryption;Generation and importing of X.509 certification	
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 SOE NEMA Type 4X (optional)	
Port		
RS-485	1 (baud rate range:1200 bps–115200 bps)	

Audio Input	1 channel (terminal)		
Audio Output	1 channel (terminal)		
Alarm Input	3 channels in: wet contact, 5mA 3V–5V DC		
Alarm Output	2 channels out: dry contact, 1,000mA 30V DC/500mA 50V AC		
Analog Output	1 channel (CVBS output: BNC)		
Power Output	12 VDC power output, max. current 165 mA, peak current 700 mA		
Power			
Power Supply	12 VDC/24 VAC/PoE (802.3at)/ePoE		
Dual Power Backup	When the power adapter and PoE provide power at the same time, disconnect one of them. The device will continue to work, but will not restart.		
Power Consumption	Basic: 4.9 W (12 VDC); 6.2 W (24 VAC); 5.9 W (PoE) Max. (Focus+WDR+ Intelligence on+IR on): 13.3 W (12 VDC); 16.3 W (24 VAC); 16.4 W (PoE) Heating: 3 W (12 VDC); 3.8 W (24 VAC); 3.9 W (PoE)		
Environment			
Operating Temperature	-40 °C to +60 °C (-40 °F to +140 °F)		
Operating Humidity	≤95%		
Storage Temperature	-40 °C to +60 °C (-40 °F to +140 °F)		
Storage Humidity	10%–95% (RH), non-condensing		
Protection	IP67; IK10		
Structure			
Casing Material	Metal + plastic		
Product Dimensions	345.6 mm \times 134.2 mm \times 135.1 mm (13.61" \times 5.28" \times 5.32") (L \times W \times H)		
Net Weight	1.6 kg (3.53 lb)		

Ordering Information						
Туре	Model	Description				
4MP	DH-IPC-HFW5442H-Z4HE	4MP IR Vari-focal Bullet WizMind Network Camera				
Camera	IPC-HFW5442H-Z4HE	4MP IR Vari-focal Bullet WizMind Network Camera				
	PFA154	Pole Mount Bracket				
	PFA155A	Anti-corrosion Pole Mount Bracket				
Accessories (Optional)	PFM320D	12 VDC 2A Power Adapter				
	PFM900-E	Integrated Mount Tester				
	TF-P100	MicroSD Memory Card				

2.4 kg (5.29 lb)

Gross Weight

Accessories

Optional:



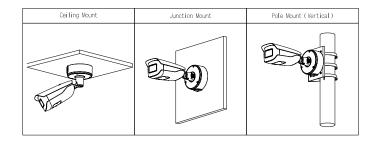
PFA154 Pole Mount Bracket



PFA155A Anti-corrosion Pole Mount Bracket



PFM320D 12 VDC 2A Power Adapter



Dimensions (mm[inch])







TF-P100 MicroSD Memory Card

