



DH-IPC-HFW5442H-ZHE

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 60 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 t 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
Max. Resolution		2688 (H) × 1520 (V)				race Detection	attributes and 8 expressions; face snapshot set as face, one-inch photo or custom; snapshot strategies (real-time snapshot, quality priority and optimization snapshot); face and of filters optimization time softing.	
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 report (day/week/month); 4 rules can be set for tripwire, people counting in area and queue management.
Scanning System		Progressive						
Electronic Shutter Speed		Auto/Manual 1/3 s-1/100,000 s					Heat Map	Yes
Min. Illumination		0.0006 lux@F1.2 (Color, 30 IRE) 0.0003 lux@F1.2 (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					vehicle logo and other attributes : seatbelt, smoking, calling.	
Illumination	Distance	Up to 60 m (196.85 ft) (IR)					Video Metadata	Non-motor vehicle attributes: type, color, number of people, top type and color, hat.
Illuminator On/Off Control		Auto; Zoomprio; Manual						Human body attributes: gender, top/bottom type and color, bag, hat and umbrella.
Illuminator Number		4 (IR LED)						Face attributes: gender, age, expressions, glasses, face mask and beard.
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		ф14					Video Compression	H.265; H.264; H.264H; H.264B; MJPEG (Only supported by the sub stream)
Focal Length		2.7 mm-12.0	2.7 mm-12.0 mm				Smart Codec	Smart H.265+; Smart H.264+
Max. Aperture		F1.2					Al Coding	AI H.265; AI H.264
Field of View		H: 114°-48°; V: 59°-27°; D: 143°-56°						Main stream: 2688 × 1520 (1 fps-25/30 fps) /1920 × 1080 (1 fps-50/60 fps)
Iris Control		Auto	Auto				Video Frame Rate	Sub stream: D1@ (1–25/30 fps) Third stream: 1080p@ (1–25/30 fps)
Iris Control Type Close Focus Distance		P-Iris 1.75 m (5.74 ft)					video Frante Rate	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 subjecte
	Lens	Detect	Observe	Recognize	Identify		Character Consolidition	to the total encoding capacity.
		60.4 m	24.2 m	12.1 m	6.0 m		Stream Capability	4 streams
	T	(198.16 ft) 128.7 m	(79.40 ft) 51.5 m	(39.70 ft) 25.7 m	(19.69 ft) 12.9 m		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		(425.52 ft)	(168.96 ft)	(84.32 ft)	(42.32 ft)		Bit Rate Control	CBR/VBR
	*DORI (Detect, Observe, Recognize, Identify) is a standard system (EN-62676-4) for defining the ability of a person viewing the video to distinguish persons or objects within a covered area. The						Video Bit Rate	H.264: 32 kbps–16384 kbps H.265: 12 kbps–11008 kbps
	numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and				stances.		Day/Night	Auto(ICR)/Color/B/W
commissioning manual/project design tool. Intelligence							BLC	Yes
iiiciiigeli	ICE	Intrusion, tri	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 gathering, and parking detection					WDR	140 dB
Smart Object 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
AcuPick		Uses deep learning algorithms and works with back-end devices to accurately match targets, such as people and					Gain Control	Auto
		motor vehicles, and search through live and recorded videos to quickly locate targets.				Noise Reduction	3D NR	
		-						Feel safe

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
LDC	Yes
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 50E 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: 3.7 W (12 VDC); 4.7 W (24 VAC); 5 W (PoE) Max. (Focus+WDR+ Intelligence on+IR on): 12.9 W (12 VDC); 15.1 W (24 VAC); 16.1 W (PoE) Heating: 3 W (12 VDC); 3.6 W (24 VAC); 3.8 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 × 134.2 mm × 135.1 mm (13.61" × 5.28" × 5.32") (L × W × H)

Ordering Information						
Туре	Model	Description				
4MP	DH-IPC-HFW5442H-ZHE	4MP IR Vari-focal Bullet WizMind Network Camera				
Camera	IPC-HFW5442H-ZHE	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				

1.6 kg (3.53 lb) 2.4 kg (5.29 lb)



Net Weight

Gross Weight

Accessories

Optional:



PFA154 Pole Mount Bracket

PFM900-E

Integrated

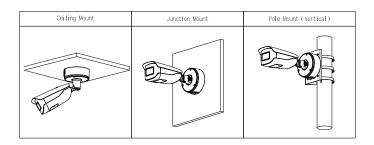
Mount Tester



PFA155A Anti-corrosion Pole Mount Bracket



PFM320D 12 VDC 2A Power Adapter



Dimensions (mm[inch])





