



DH-IPC-HDBW5442E-ZE

4MP IR Vari-focal Vandal-proof Dome 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 AI-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. 4MP (2688×1520) @25/30 fps.
- Built-in IR LED, and the max. illumination distance is 40 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: 2 in, 1 out; audio: 1 in, 1 out; supports max. 512 GB Micro SD card, built-in MIC.
- 12 VDC/24 VAC/PoE power supply; ePoE.
- IP67 and IK10 protection.
- 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 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 $\pm 30\%$ (for some power supplies) input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.



SMD

SMD 3.0

Technical	Specification	on						Uses deep learning algorithms and works with back-end
Camera						AcuPick	devices to accurately match targets, such as people and motor vehicles, and search through live and recorded videos to quickly locate targets.	
Image Sensor		1/1.8" CMOS					AISSA	Yes
Max. Resolution		2688 (H) × 1520 (V)						
ROM		4 GB					Face Detection	Face detection; track; snapshot; snapshot optimization; 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); face angle filter; optimization time setting
RAM		1 GB						
Scanning System		Progressive						
Electronic Sh	utter Speed	Auto/Manual 1/3 s=1/100,000 s						Tripwire people counting, generating and exporting
Min. Illumination		0.0007 lux@F1.8 (Color, 30 IRE) 0.0004 lux@F1.8 (B/W, 30 IRE) 0 lux (Illuminator on)					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.
S/N Ratio		>56 dB					Heat Map	Yes
Illumination	Distance	Up to 40 m (131.23 ft) (IR)						Motor vehicle, non-motor vehicle, face, human body detection; track; snapshot; snapshot optimization; optimal face snapshot upload. Motor vehicle attributes: vehicle type, vehicle color,
Illuminator C	On/Off Control	Auto; Zoomprio; Manual 3 (IR LED)						
Angle Adjustment		Pan: 0°–355° Tilt: 0°–65° Rotation: 0°–355°					Video Metadata	vehicle logo and other attributes: seatbelt, smoking, calling. Non-motor vehicle attributes: type, color, number of people, top type and color, hat. Human body attributes: gender, top/bottom type and
Lens								color, bag, hat and umbrella. Face attributes: gender, age, expressions, glasses, face mask and beard.
Lens Type		Motorized vari-focal						Work together with Smart NVR to perform refine
Lens Mount		ф14					Smart Search	intelligent search, event extraction and merging to event videos
Focal Length		2.7 mm-12 mm					Smart Sound Detection	Yes
Max. Aperture		F1.8					Video	
Field of View		H: 115°-47°; V: 62°-27°; D: 137°-54°					Video Compression	H.265; H.264; H.264H; H.264B; MJPEG (Only supported by the sub stream)
Iris Control		Auto					Smart Codec	Smart H.265+; Smart H.264+
Close Focus Distance		1.5 m (4.92 ft)				Al Coding	AI H.265; AI H.264	
	Lens	Detect	Observe	Recognize	Identify		,	Main stream: 2688 × 1520 (1 fps-25/30 fps) /1920 ×
	W	57.5 m (188.65 ft)	23.0 m (75.46 ft)	11.5 m (37.73 ft)	5.8 m (19.03 ft)			1080 (1 fps-50/60 fps) Sub stream: D1@(1-25/30 fps) Third stream: 1080p@(1-25/30 fps)
DORI Distance	T *DORI (Dete	130.8 m (429.13 ft) ct, Observe, R	52.3 m (171.59 ft) ecognize, Ide	26.2 m (85.96 ft) ntify) is a stan	13.1 m (42.98 ft) dard system		Video Frame 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 subjected.
	video to dist	2676-4) for defining the ability of a person viewing the to distinguish persons or objects within a covered area. The ers in this table do not reflect intelligent function distances.					Stream Capability	to the total encoding capacity. 4 streams
	For intelliger		tances, refer	to installation			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 ×
Intelligen	ce						Dit Data Control	480); VGA (640 × 480); CIF (352 × 288/352 × 240)
IVS (Perimeter Protection)		Intrusion, tripwire, fast moving (the three functions					Bit Rate Control Video Bit Rate	CBR/VBR H.264: 32 kbps-16384 kbps; H.265: 12 kbps-11008 kbps
		support the classification and accurate detection of vehicle and human); loitering detection, people gathering, and parking detection				Day/Night	Auto(ICR)/Color/B/W	
							BLC	Yes
Smart Objec	t Detection	Smart abandoned object; smart missing object					HLC	Yes
CMD		CMD 2 O						

WDR

(SSA)

Scene Self-adaptation

140 dB

Yes

White Balance	Auto; natural; street lamp; outdoor; manual; regional custom		
Gain Control	Auto		
Noise Reduction	3D NR		
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 \times 1520) resolution and lower)		
Mirror	Yes		
Privacy Masking	8 areas		
LDC	Yes		
Audio			
Built-in MIC	Yes		
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; defocus detection		
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		

Port	
Audio Input	1 channel (RCA port)
Audio Output	1 channel (RCA port)
Alarm Input	2 channels in: wet contact, 5mA 3V–5V DC
Alarm Output	1 channel out: wet contact, 300mA 12V DC
Power	
Power Supply	12 VDC/24 VAC/PoE (802.3af)/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: 3.6 W (12 VDC); 4.3 W (24 VAC); 5.4 W (PoE) Max. (H.265+ WDR+ Intelligence on+IR on): 9.3 W (12 VDC); 11 W (24 VAC); 11.7 W (PoE)
Environment	
Operating Temperature	−30 °C to +60 °C (−22 °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
Product Dimensions	Φ159.1 mm × 118.1 mm (6.26" × Φ4.65")
Net Weight	0.91 kg (2.01 lb)

Ordering Information					
Туре	Model	Description			
4MP	DH-IPC-HDBW5442E-ZE	4MP IR Vari-focal Vandal-proof Dome WizMind Network Camera			
Camera	IPC-HDBW5442E-ZE	4MP IR Vari-focal Vandal-proof Dome WizMind Network Camera			
	PFB211W	Wall Mount Bracket			
	PFA138	Junction Box			
	PFB5201C	In-ceiling Mount Bracket			
	PFB300C	Ceiling Mount Bracket			
Accessories (Optional)	PFA156	Pole Mount Bracket			
	PFA101	Mount Adapter			
	PFM321D	12 VDC 1 A Power Adapter			
	PFM900-E	Integrated Mount Tester			
	TF-P100	MicroSD Memory Card			

1.22 kg (2.69 lb)

Gross Weight

Accessories

Optional:





Bracket



PFA138 Junction Box



PFB5201C In-ceiling Mount Bracket



PFB300C Ceiling Mount Bracket



PFA156 Pole Mount Bracket



PFA101 Mount Adapter



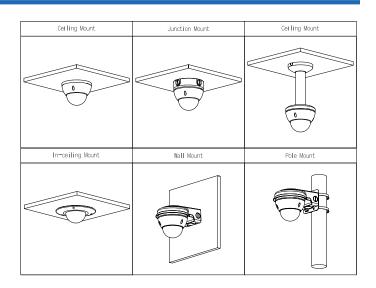
PFM321D 12 VDC 1 A Power Adapter



PFM900-E Integrated Mount Tester



TF-P100 MicroSD Memory Card



Dimensions (mm[inch])

