

DH-IPC-HDBW5541E-ZE

5MP 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 5541-Z-S3 series.

- 5-MP 1/2.7" CMOS image sensor, low luminance, and high definition image.
- · Outputs max. 5MP (2960×1668) @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.
- 24V AC/12 VDC/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.

Technical Specification						Tripwire people counting, generating and exporting		
Camera						People Counting	report (day/week/month/year); people counting in area and queue management; generating and exporting	
Image Sensor		1/2.7" CMOS						report (day/week/month); 4 rules can be set for tripwire people counting in area and queue management.
Max. Resolution		2960 (H) × 1668 (V)					Heat Map	Yes
ROM		4 GB					Motor vehicle, non-motor vehicle, face, human body	
RAM		1 GB						detection; track; snapshot; snapshot optimization; optimal face snapshot upload.
Scanning System		Progressive				Video Metadata	Motor vehicle attributes: vehicle type, vehicle color, vehicle logo and other attributes: seatbelt, smoking, calling. Nonmotor vehicle attributes: type, color, number of	
Electronic Shutter Speed		Auto/Manual 1/3 s-1/100,000 s						
Min. Illumination		0.0009 lux@F1.5 (Color, 30 IRE) 0.0005 lux@F1.5 (B/W, 30 IRE) 0 lux (Illuminator on)						people, top type and color, hat. Human body attributes: gender, top/bottom type and color, bag, hat and umbrella. Face attributes: gender, age, expressions, glasses, face mask and beard.
S/N Ratio		>56 dB					Work together with Smart NVR to perform refine	
Illumination Distance		40 m (131.23 ft) (IR)					Smart Search	intelligent search, event extraction and merging to event videos
Illuminator C	On/Off Control	Auto;Zoomprio; Manual					Smart Sound Detection	Yes
Illuminator N	Illuminator Number		3 (IR LED)				Video	
Angle Adjustment		Pan: 0°–355° Tilt: 0°–65° Rotation: 0°–355°					Video Compression	H.265; H.264; H.264H; H.264B; MJPEG (Only supported by the sub stream)
Lens							Smart Codec	Smart H.265+; Smart H.264+
Lens Type	Lens Type		Motorized vari-focal				AI Coding	AI H.265; AI H.264
Lens Mount		ф14						Main stream: 2960 × 1668@(1–25/30 fps) Sub stream: D1@(1–25/30 fps)
Focal Length		2.7 mm-13.5 mm					Video Frame Rate	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.
Max. Aperture		F1.5						
Field of View	1	H: 114°-32°; V: 58°-17°; D: 138°-36°					Stream Capability	4 streams
Iris Control		Auto					Resolution	5M (2960 × 1668); 5M (2880 × 1620); 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)
Close Focus	Distance Lens	0.8 m (2.62 ft) Detect Observe Recognize Identify						
DORI	W	64.0 m	25.6 m	12.8 m	6.4 m		Bit Rate Control	CBR/VBR
Distance	Т	(209.97 ft) 210.0 m	(83.99 ft) 84.0 m	(41.99 ft) 42.0 m	(20.99 ft) 21.0 m		Video Bit Rate	H.264: 32 kbps–16384 kbps; H.265: 12 kbps–11776 kbps
		(688.98 ft) (275.89 ft) (137.80 ft) (68.90 ft)					Day/Night	Auto(ICR)/Color/B/W
irremgen	Intelligence IVS (Perimeter Protection)		owire fast mov	ing (the three f	unctions		BLC	Yes
IVS (Perimet			lassification ar	nd accurate det ring detection,	ection		HLC	Yes
		gathering, and parking detection					WDR	120 dB
Smart Object Detection		Smart abandoned object; smart missing object					Scene Self-adaptation	Yes
SMD 3.0		Less false alarm, longer detection distance					(SSA)	Auto; natural; street lamp; outdoor; manual; regional
AI SSA		Yes					White Balance	custom
Face Detection		Face detection; track; snapshot; snapshot optimization; optimal face snapshot upload; face enhancement;					Gain Control	Auto
		face exposure; face attributes extraction including 6 attributes and 8 expressions; face snapshot set as face,					Noise Reduction	3D NR
		one-inch photo or custom; snapshot strategies (real-time snapshot, quality priority and optimization snapshot);				2	Motion Detection	OFF/ON (4 areas, rectangular)
		face angle filter; optimization time setting.					Region of Interest (RoI)	Yes (4 areas)
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Image Stabilization

Electronic Image Stabilization (EIS)

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
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; 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				
Power Consumption	Basic: 3.9 W (12 VDC); 4.6 W (24 VAC); 5.6 W (PoE) Max. (H.265+ WDR+ Intelligence on+IR on): 10 W (12 VDC); 11.7 W (24 VAC); 12.1 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)				

1.22 kg (2.69 lb)

Gross Weight

Ordering Information						
Туре	Model	Description				
5MP	DH-IPC-HDBW5541E-ZE	5MP IR Vari-focal Vandal-proof Dome WizMind Network Camera				
Camera	IPC-HDBW5541E-ZE	5MP 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				

Accessories

Optional:



PFB211W Wall Mount Bracket



PFB300C Ceiling Mount Bracket



PFA138 Junction Box



PFB5201C In-ceiling Mount Bracket



PFA156 Pole Mount Bracket



PFA101 Mount Adapter



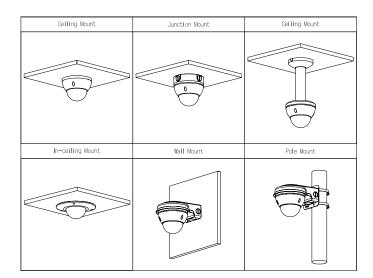
PFM321D 12 VDC 1 A Power Adapter



PFM900-E Integrated Mount Tester



TF-P100 MicroSD Memory Card



Dimensions (mm[inch])

