



DH-IPC-HFW5541E-ZE

5MP 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 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 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: 2 in, 1 out; audio: 1 in, 1 out; supports max. 512 GB Micro SD card, built-in MIC.
- 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

Image Sensor I 1/2.7° CMOS Max. Resolution 2960 (H) × 1668 (V) RAM 4 GB RAM 1 GB Scanning Syrem 1 GB Scanning Syrem 1 GB Illuminator Spreme Auto/Manual /13 = 1/100,000 (SURE) Idlin. Illuminator Spreme Auto/Manual /13 = 1/100,000 (SURE) S/N Ratio S56 dB Illuminator On Son Sux SprEme Son Sux SprEme Illuminator Voff Control Auto/Concord Sux SprEme Angle Adjustree Gan (19.8 SprEme) Illuminator Voff Control Auto/Scanobard SprEme Angle Adjustree Pan: 0°-360° Rication: 0°-360° Rication: 0°-360° Rication: 0°-360° Ingle Adjustree Stramo SmrEme Lens Motorized sprEme Icans Mount Auto Inside Control Auto Field of Vierter Fi.5 Field of Vierter Stramod SgrEme Intra SprEme Stramod SgrEme In	amera					
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Angle AdjustmentTilt: 0°-90° Ratation: 0°-360°Lens Lens Lens TypeMotorized variable statusLens MountMotorized variable statusLens Mount644Focal Length2.7 mm-13.5 mm	Illuminator Number		4 (IR LED)			
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Face Detection attributes and 8 expressions; face snapshot set as fa one-inch photo or custom; snapshot strategies (rea snapshot, quality priority and optimization snapsho	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.			

People Counting	Tripwire people counting, generating and exporting 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.		
Heat Map	Yes		
Video Metadata	Motor vehicle, non-motor vehicle, face, human body detection; track; snapshot; snapshot optimization; optimal face snapshot upload. Motor vehicle attributes: vehicle type, vehicle color, 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 color, bag, hat and umbrella. Face attributes: gender, age, expressions, glasses, face mask and beard.		
Smart Search	Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos		
Smart Sound Detection	Yes		
Video			
Video Compression	H.265; H.264; H.264H; H.264B; MJPEG (Only supported by the sub stream)		
Smart Codec	Smart H.265+; Smart H.264+		
AI Coding	AI H.265; AI H.264		
Video Frame Rate	Main stream: 2960 × 1668@(1–25/30 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.		
Stream Capability	4 streams		
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)		
Bit Rate Control	CBR/VBR		
Video Bit Rate	H.264: 32 kbps-16384 kbps; H.265: 12 kbps-11776 kbps		
Day/Night	Auto(ICR)/Color/B/W		
BLC	Yes		
HLC	Yes		
WDR	120 dB		
Scene Self-adaptation (SSA)	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)		

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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; 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, 5 mA 3V-5V DC
Alarm Output	1 channel out: wet contact, 300mA 12V DC
Power	
Power Supply	12 VDC/PoE (802.3af)/ePoE

Power Consumption	Basic: 3.6 W (12 VDC); 4.7 W (PoE) Max. (H.265+ WDR+ Intelligence on+IR on): 10.4 W (12 VDC); 13.0 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	273.2 mm × 95.0 mm × 95.0 mm (10.76" × 3.74" × 3.74") (L × W × H)			
Net Weight	1.12 kg (2.47 lb)			
Gross Weight	1.66 kg (3.66 lb)			

Ordering Information					
Туре	Model	Description			
5MP Camera	DH-IPC-HFW5541E-ZE	5MP IR Vari-focal Bullet WizMind Network Camera			
	IPC-HFW5541E-ZE	5MP IR Vari-focal Bullet WizMind Network Camera			
Accessories (Optional)	PFA121	Water-proof Junction Box			
	PFA156	Pole Mount Bracket			
	PFM321D	12 VDC 1 A Power Adapter			
	PFM900-E	Integrated Mount Tester			
	TF-P100	MicroSD Memory Card			

Accessories

Optional:



PFA121

Water-proof Junction Box

PFM900-E Integrated Mount Tester



PFA156 Pole Mount Bracket



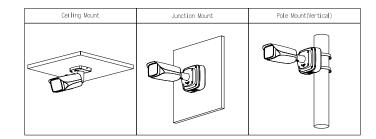
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TF-P100 MicroSD Memory Card

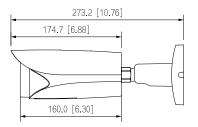


PFM321D 12 VDC 1 A Power Adapter

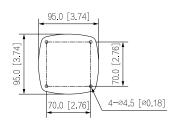




Dimensions (mm[inch])







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