

DH-IPC-HFW5541T-ASE

5MP IR Fixed-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 various fields.

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 detection, 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-ASE-S3 series.**

- 5-MP 1/2.7" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 5 MP (2960×1668) @25/30fps.
- Built-in IR LED, and the max. illumination distance is 80 m.
- ROI, SVC, SMART H.264+/H.265+, AI H.264/H.265, encoding algorithm 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, face detection, smart object detection, and people counting, etc.
- Alarm: 1 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 SpecificaAon	
Camera	
Image Sensor	1/2.7" CMOS
Max. ResoluCon	2960 (H) × 1668 (V)
ROM	4 GB
RAM	1 GB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. IlluminaCon	0.0009 Lux@F1.6 (Color,30IRE) 0.0005 Lux@F1.6 (B/W,30IRE) 0 lux (Illuminator on)
S/N RaCo	>56 dB
IlluminaCon Distance	Up to 80 m (262.47 ´) (IR)
Illuminator On/Off Control	Auto; Manual
Illuminator Number	4 (IR LED)
Angle Adjustment	Pan: 0°–360° Tilt: 0°–90° Rota´ on: 0°–360°

Lens					
Lens Type		Fixed-focal			
Lens Mount		M12			
Focal Length		2.8 mm; 3.6 mm; 6 mm; 8mm			
Max. Aperture		F1.6			
Field of View		2.8 mm: H: 111°; V: 58°; D: 132° 3.6 mm: H: 92°; V: 45°; D: 110° 6 mm: H: 57°; V: 30°; D: 65° 8 mm: H: 43°; V: 24°; D: 48°			
Iris Control		Fixed			
Close Focus Distance		2.8 mm: 1.1 m (3.06 ´) 3.6 mm: 1.7 m (5.58 ´) 6 mm: 3.2 m (10.50 ´) 8 mm: 4.6 m (15.09 ´)			
DORI Distance	Lens	Detect	Observe	Recognize	Iden´ fy
	2.8 mm	63.6 m (208.66 ´)	25.4 m (83.33 ´)	12.7 m (41.67 ´)	6.4 m (21.00 ´)
	3.6 mm	85.4 m (280.18 ´)	34.2 m (112.20 ´)	17.1m (56.10 ´)	8.5 m (27.89 ´)
	6 mm	124.0 m (406.82 ´)	49.6 m (162.73 ´)	24.8 m (81.36 ´)	12.4 m (40.68 ´)
	8 mm	150.4 m (493.44 ´)	60.2 m (197.51 ´)	30.1 m (98.75 ´)	15.0 m (49.21 ´)
	*DORI (Detect, Observe, Recognize, IdenCfy) is a standard system (EN-62676-4) for defining the ability of a person viewing the video to disCnguish persons or objects within a covered area. The numbers in this table do not reflect intelligent funcCon distances. For intelligent funcCon distances, refer to installaCon and commissioning manual/project design tool.				

Intelligence	
IVS (Perimeter ProtecCon)	Intrusion, tripwire, fast moving (the three func´ ons support the classifica´ on and accurate detec´ on of vehicle and human); loitering detec´ on, people gathering, and parking detec´ on

Smart Object DetecCon	Smart abandoned object; smart missing object
SMD	SMD 3.0
AcuPick	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 videos to quickly locate targets.
AI SSA	Yes
Face DetecCon	Face detec´ on; track; snapshot; snapshot op´ miza´ on; op´ mal face snapshot upload; face enhancement; face exposure; face attributes extra´ on including 6 attributes and 8 expressions; face snapshot set as face, one-inch photo or custom; snapshot strategies (real´ me snapshot, quality priority and op´ miza´ on snapshot); face angle filter; op´ miza´ on ´ me setting
People CounCng	Tripwire people coun´ ng, genera´ ng and exporta´ ng report (day/week/month/year); people coun´ ng in area and queue management, genera´ ng and exporta´ ng report (day/week/month); 4 rules can be set for tripwire, people coun´ ng in area and queue management.
Heat Map	Yes
Video Metadata	Motor vehicle, non-motor vehicle, face, human body detec´ on; track; snapshot; snapshot op´ miza´ on; op´ mal 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 extra´ on and merging to event videos
Smart Sound DetecCon	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 mul´ ple streams, the values will be subjected to the total encoding capacity.
Stream Capability	4 streams
ResoluCon	5M (2960 × 1668/2880 × 1620); 4M (2688 × 1520); 3.6M (2560 × 1440); 3M (2048 × 1536/2304 × 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-adaptaCon (SSA)	Yes
White Balance	Auto; natural; street lamp; outdoor; manual; regional custom
Gain Control	Auto
Noise ReducCon	3D NR
MoCon DetecCon	OFF/ON (4 areas, rectangular)
Region of Interest (RoI)	Yes (4 areas)
Smart IlluminaCon	Yes
Defog	Yes
Image RotaCon	0°/90°/180°/270° (Support 90°/270° with 4M (2688 × 1520) resoluCon and lower)
Mirror	Yes
Privacy Masking	8 areas
LDC	Yes (only 2.8mm/3.6mm supports)

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 disconnect on; IP conflict; illegal access; moCon detect on; video tampering; tripwire; intrusion; fast moving; abandoned object; missing object; loitering detect on; people gathering; parking detect on; scene changing; audio detect on; voltage detect on; external alarm; face detect on; video metadata; SMD; people count ng in area; stay detect on; people count ng; people number error detect on; queue people number alarm; queue time alarm; security except on
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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	ConfiguraCon on encrypt on; trusted execut on; Digest; security logs; WSSE; account lockout; syslog; video encrypt on; 802.1x; IP/MAC filtering; HTTPS; trusted upgrade; trusted boot; firmware encrypt on; generaCon and importaCon of X.509 certificaCon

CertificaCon

CertificaCons	CE-LVD: EN62368-1; CE-EMC: ElectromagneCon CompabiliCon DirecCon 2014/30/EU; FCC: 47 CFR FCC Part 15, Subpart B; UL/CUL: UL62368-1 & CAN/CSA C22.2 No. 62368-1-14
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Port

Audio Input	1 channel (RCA port)
Audio Output	1 channel (RCA port)
Alarm Input	1 channel in: wet contact, 5 mA 3V–5 VDC
Alarm Output	1 channel out: wet contact, 300mA 12V DC

Power

Power Supply	12 VDC/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 ConsumpCon	Basic: 4.1 W (12 VDC); 5.2 W (PoE) Max. (H.265+ WDR+ Intelligence on+IR on): 8.3 W (12 VDC); 9.8 W (PoE)

Environment

OperaCong Temperature	–40 °C to +60 °C (–40 °F to +140 °F)
OperaCong Humidity	≤95%
Storage Temperature	–40 °C to +60 °C (–40 °F to +140 °F)
Storage Humidity	10%–95% (RH), non-condensing
ProtecCon	IP67; IK10

Structure

Casing Material	Metal
Product Dimensions	244.1 mm × 79.0 mm × 75.9 mm (9.61" × 3.11" × 2.99") (L × W × H)
Net Weight	0.82 kg (1.81 lb)
Gross Weight	1.08 kg (2.38 lb)

Ordering InformaCon

Type	Model	DescripCon
5MP Camera	DH-IPC-HFW5541T-ASE	5MP IR Fixed-focal Bullet WizMind Network Camera
	IPC-HFW5541T-ASE	5MP IR Fixed-focal Bullet WizMind Network Camera
Accessories (OpConal)	PFA130-E	Water-proof Junction Box
	PFA152-E	Pole Mount Bracket
	PFM321D	12 VDC 1 A Power Adapter
	PFM900-E	Integrated Mount Tester
	TF-P100	MicroSD Memory Card

Accessories

Optional:



PFA130-E
Water-proof
Junction on Box



PFA152-E
Pole Mount Bracket



PFM321D
12 VDC 1 A Power
Adapter



PFM900-E
Integrated
Mount Tester



TF-P100
MicroSD
Memory Card

Ceiling Mount	Junction Mount	Pole Mount(Vertical)

Dimensions (mm[inch])

