

DH-IPC-HFW5559T-ASE-IL

5MP Smart Dual Light 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 verticals.

Series Overview

With its deep learning algorithms, the WizMind 5 Series camera offers advanced analytical capabilities for both audio and video. It integrates intelligent features such as video metadata, AcuPick, face detection, perimeter protection, and people counting. Powered by the Xinghan Large-Scale AI Models-Vision, the camera excels in object detection, recognition, and scene adaptation. Equipped with AI-ISP imaging technology, it offers enhanced night vision performance. The series is designed for durability, being dust-proof, waterproof, and vandal-proof, in compliance with IP67 and IK10 standards, though support for these certifications may vary across models.

Functions

Xinghan Large-Scale AI Models-Vision

Xinghan Large-Scale AI Models-Vision seamlessly expands the storage and operational capacity of algorithmic models through the powerful integration of edge AI model algorithms and NPU computing power. Engineered with a lightweight transformer architecture and enhanced by model distillation and quantization techniques, it optimizes the computing power consumption of VIT operators. This enables the system to collaborate on multiple tasks simultaneously through joint inference between small and large models optimized for edge devices.

Self-Learning

Empowered by deep learning technology, the device recognizes different types of targets and their statuses through learning and analyzing target features to detect targets and filter out false alarms.

- 5-MP 1/2.7" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 5 MP (2960 × 1668) @25/30 fps.
- Built-in multi-core light, the max. IR distance is 80 m and the max. warm light 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.
- Powered by the Xinghan Large-Scale AI Models-Vision, the camera outstandingly delivers on its object detection, recognition, and scene adaptation functions.
- With deep learning algorithm, it supports: AcuPick, video metadata,
 IVS, face detection, and people counting, etc.
- Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 1 TB Micro SD card; built-in Mic
- 12 VDC/PoE power supply; ePoE
- · IP67 and IK10 protection.













Smart Dual Light

Dahua Smart Dual Light technology adopts smart algorithm to detect targets. Usually, the IR illuminator is on at night; when the target appears in the monitoring area, the white light is on, and the camera records the full-color video and information of key events. That is, the camera links snapshot and video with full-color image. When the target is out of the monitoring area, the white light is off and the IR illuminator is on, which reduces light pollution efficiently.

AcuPick

This industry-leading search technology effectively utilizes both front-end and back-end intelligence to help with searching through massive video data to quickly and conveniently locate targets with greater precision.

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	n					11/6/19 :	the target detection range and reduce the rate of false
Technical Specification						IVS (Perimeter Protection)	alarm. Supports self-learning, it filters out false alarms.	
Camera		1/2 7/1 CMOC					SMD	SMD 4.0
Image Sensor		1/2.7" CMOS						Uses deep learning algorithms and works with back-end devices to accurately match targets, such as people,
Max. Resolution		2960 (H) × 1668 (V)				AcuPick	animal and motor vehicles, and search through live and	
ROM		4 GB 2 GB					recorded videos to quickly locate targets. Face detection; snapshot; snapshot optimization;	
RAM							Face Detection	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.
Scanning System		Progressive						
Electronic Shutter Speed Min. Illumination		Auto/Manual 1/3 s=1/100,000 s 0.0009 lux@F1.6 (Color, 30 IRE) 0.0005 lux@F1.6 (B/W, 30 IRE)						
		0 lux (Illuminator on)					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.
S/N Ratio		>56 dB						
Illumination Distance		Up to 80 m (262.47 ft) (IR) Up to 60 m (196.85 ft) (Warm light)						
Illuminator O	n/Off Control	Auto;Manual					Heat Map	Yes
Illuminator Number		4 (Multi-core (IR + warm) light) Pan: 0°–360°						Motor vehicle, non-motor vehicle, face, and human body detection; snapshot; snapshot optimization;
Angle Adjustment		Tilt: 0°–90° Rotation: 0°–360°					Video Metadata	optimal face snapshot upload. Extraction of motor vehicle and non-motor vehicle attributes: extracts 6 attributes for motor vehicle and
Lens Type		Fixed-focal						6 attributes for non-motor vehicle. Extraction of face and human body attributes: extracts 6 attributes for face and 8 attributes for human body.
Lens Mount		M12						Work together with Smart NVR to perform refine
Focal Length		2.8 mm; 3.6 mm; 6 mm					Smart Search	intelligent search, event extraction and merging to event videos
Max. Aperture		F1.6					Video	
Field of View		2.8 mm: H: 108.4°; V: 60°; D: 127.1° 3.6 mm: H: 90.3°; V: 47.8°; D: 108.6° 6 mm: H: 56°; V: 30.3°; D: 65.4°					Video Compression	H.265; H.264; H.264H; H.264B; MJPEG (Only supported by the sub stream)
Iris Control		Fixed					Al Coding	AI H.265; AI H.264 *Includes smart codec technology, Smart H.265+ and
Close Focus Distance		2.8 mm: 1 m (3.28 ft) 3.6 mm: 1.5 m (4.92 ft)					Ai Couing	Smart H.264+. Main stream: 2960×1668@(1 fps-25/30 fps)
		6 mm: 3.2 m	(10.50 ft)				Video Frame Rate	Sub stream: 704 × 576@(1 fps-25 fps)/704 × 480@(1
	Lens	Detect	Observe	Recognize	Identify			fps=30 fps) Third stream: 1920 × 1080@(1 fps=25/30 fps) Fourth stream: 1280 × 720@(1 fps=25/30 fps) *The values above are the max. frame rates of each stream; for multiple streams, the values will be
	2.8 mm	61.6 m (202.10 ft)	24.6 m (80.71 ft)	12.3 m (40.35 ft)	6.2 m (20.34 ft)			
	3.6 mm	78.0 m (255.91 ft)	31.2 m (102.36 ft)	15.6 m (51.18 ft)	7.8 m (25.59 ft)			subjected to the total encoding capacity.
DORI	6 mm	124.0 m	49.6 m	24.8 m	12.4 m		Streaming Capability	4 streams
Distance	0 111111	(406.82 ft)	(162.73 ft)	(81.36 ft)	(40.68 ft)			5M (2960 × 1668/2880 × 1620); 4M (2688 × 1520/2560 × 1440); 3M (2048 × 1536/2304 × 1296); 1080p (1920 ×
	*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.						Resolution	1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)
	The numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation						Bit Rate Control	VBR;CBR
and commissioning manual/project design tool. Intelligence					Video Bit Rate	H.264: 3 kbps–16384 kbps H.265: 3 kbps–16384 kbps		
Intelligence Intrusion, tripwire, fast moving (the three functions				Day/Night	Auto(ICR)/Color/B/W			
N/C / D'	on Dunate att	support the classification and accurate detection of					BLC	Yes
IVS (Perimeter Protection)		vehicle, animal and human); loitering detection, people gathering, parking detection, stay detection. Offers					HLC	Yes

Perimeter Protection Large-Scale AI Models to extend

WDR	120 dB		
Scene Self-adaptation (SSA)	Yes		
White Balance	Auto; natural; street lamp; outdoor; manual; regional custom		
Gain Control	Auto/Manual		
Noise Reduction	3D NR		
Motion Detection	OFF/ON (4 areas, rectangular)		
Region of Interest (RoI)	Yes (4 areas)		
Smart Illumination	Yes		
Smart Dual Light	Yes		
Defog	Yes		
Image Rotation	0°/90°/180°/270° (Support 90°/270° with 4M (2688 × 1520) resolution and lower)		
Mirror	Yes		
Privacy Masking	4 mosaics or 8 color blocks		
LDC	Yes		
Audio			
Built-in MIC	Yes, built-in 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; 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; Auto Registration		
Interoperability	ONVIF (Profile S & Profile G & Profile T & Profile M); CGI		
User/Host	20 (Total bandwidth: 80 M)		
Storage	FTP; SFTP; Micro SD card (support max. 1 TB); NAS		
Browser	IE: IE 11 and later Chrome: Chrome 102 and later Firefox: Firefox 88 and later		
Management Software	DSS; DMSS; DoLynk Care		
Mobile Client	iOS;Android		
Security	Digest;WSSE;Account lockout;Security logs;IP/MAC filtering;Generation and importing of X.509 certification;syslog;HTTPS;802.1x;Trusted boot;Trusted execution;Trusted upgrade;Session security;Security warning		

Function					
Sound Warning	Offers 11 sound alarms and supports importing 10 custom sound alarms. Sound: 0–100 Play times can be set from 1 to 10.				
Certification					
Certifications	CE-LVD: EN62368-1; CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU;				
Port					
Audio Input	1 channel (RCA port)				
Audio Output	1 channel (RCA port)				
Alarm Input	1 channel in: wet contact, 5 mA 3–5 VDC				
Alarm Output	1 channel out: wet contact, 300 mA 12 VDC				
Power					
Power Supply	12 VDC (±30%); 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: 4.2 W (12 VDC); 6.3 W (PoE) Max. (H.265 + WDR+ warm light + intelligence on): 13.3 W (12 VDC); 15.6 W (PoE)				
ePoE	Yes				
Environment					
Operating Temperature	-40 °C to +60 °C (-40 °F to +140 °F)				
Operating Humidity	≤95% (RH), non-condensing				
Storage Temperature	-40 °C to +60 °C (-40 °F to +140 °F)				
Storage Humidity	≤95% (RH), non-condensing				
Protection	IP67; IK10				
Structure					
Casing Material	Metal				
Product Dimensions	238.0 mm × 90.7 mm × 90.7 mm (9.37" × 3.57" × 3.57") (L × W × H)				
Net Weight	835 g (1.84 lb)				
Gross Weight	1090 g (2.4 lb)				

Ordering Information						
Туре	Model	Description				
IP CAMERA	DH-IPC-HFW5559T-ASE-IL	5MP Smart Dual Light Fixed-focal Bullet WizMind Network Camera				



Туре	Model	Description
	DH-PFA151	Corner Mount Bracket
	G3416GW	G3/4" Water Joint
	DH-PFA130-E	Water-proof Junction Box
Accessories (Optional)	DH-PFA152-E	Pole Mount Bracket
Accessories (Optional)	DH-PFA135	Junction Box
	DH-PFM320D-EN	DC12V2A power adapter
	PFM900-E	Integrated Mount Tester
	DHI-TF-P100/1TB	MicroSD Card

Accessories

Optional:



DH-PFA130-E Water-proof Junction Box



DH-PFA135 Junction Box



DH-PFA151 Corner Mount Bracket



DH-PFA152-E Pole Mount Bracket



DH-PFM320D-EN DC12V2A power adapter



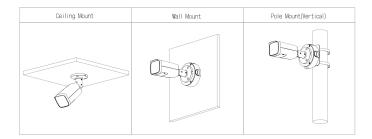
DHI-TF-P100/1TB MicroSD Card



G3416GW G3/4" Water Joint



PFM900-E Integrated Mount Tester



Dimensions (mm[inch])

