



DH-IPC-HDW5459H-ASE-PV-PRO

4MP WizColor Fixed-focal Eyeball 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 Al 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 outstandingly delivers on its object detection, recognition, and scene adaptation functions. Equipped with AI-ISP imaging technology, it offers excellent 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 Al 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.

- · 4-MP 1/1.8" CMOS image sensor, low luminance, and high definition image.
- . Outputs max. 4 MP (2688 × 1520) @25/30 fps.
- Built-in multi-core light, the max. IR distance is 60 m and the max. warm light distance is 50 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.
- · Features AI Rule Assist, which automatically creates highly accurate IVS rules based on the Xinghan Vision Models.
- 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; RS-485; supports max. 1 TB Micro SD card; built-in dual Mic; 1-ch speaker; support two-way talk.
- 12 VDC/PoE power supply; ePoE; 12 VDC power output, and max. current 165mA, easy for installation.
- IP67 and IK10 protection.













WizColor Technology

Dahua WizColor Technology seamlessly combines with the powerful Al-ISP, large pixel size sensor and large aperture in cameras. This unique integration enables cameras to effortlessly capture high-quality images with vibrant colors during nighttime scenarios, ensuring fine details are preserved and minimizing motion blur. Unlike traditional self-illuminating cameras, Dahua WizColor Technology maximizes the utilization of weak light sources, such as moonlight and city lights reflected in the sky, delivering captivating full-color images of the entire scene. It also ensures that monitoring distances are not compromised at night due to limited illumination ranges, facilitating full-color image capture even over long distances.

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 ±30% (for some power supplies) input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

Technical	Specificatio	n						Uses deep learning algorithms and works with bac
Camera				AcuPick	devices to accurately match targets, such as people, animal and motor vehicles, and search through live			
Image Sensor		1/1.8" CMOS						recorded videos to quickly locate targets.
Max. Resolution		2688 (H) × 1520 (V)					Face Detection	Face detection; snapshot; snapshot optimization; optimal face snapshot upload; face enhancement;
ROM		4 GB						face exposure; face attributes extraction including 6 attributes and 8 expressions; face snapshot set as
RAM		2 GB					, doe betestis	face, one-inch photo or custom; snapshot strategies (real-time snapshot, quality priority and optimizatio
Scanning System		Progressive						snapshot); face angle filter; optimization time setting
Electronic Shutter Speed		Auto/Manual 1/3 s-1/100,000 s					People Counting	Tripwire people counting, generating and exporting report (day/week/month/year); people counting in a and queue management, generating and exporting report (day/week/month); 4 rules can be set for tripwire, people counting in area and queue management.
Min. Illumination		0.0004 lux@F1.0(Color, 30IRE) 0.0003 lux@F1.0 (B/W, 30IRE) 0 lux (Illuminator on)						
S/N Ratio		>56 dB					Heat Map	Yes
Illumination Distance		Up to 60 m (196.85 ft) (IR) Up to 50 m (164.04 ft) (Warm light)						Motor vehicle, non-motor vehicle, face, and human body detection; snapshot; snapshot optimization; optimal face snapshot upload. Extraction of motor vehicle and non-motor vehicle attributes: extracts 6 attributes for motor vehicle and 6 attributes for non-motor vehicle. Extraction of face and human body attributes: extract 6 attributes for face and 8 attributes for human body
Illuminator On/Off Control		Auto;Manual						
Illuminator Number		4 (Multi-core (IR + warm) light)					Video Metadata	
Angle Adjustment		Pan: 0°–360° Tilt: 0°–78° Rotation: 0°–360°						
Lens							Smart Search	Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos
Lens Type		Fixed-focal					Video	event videos
Lens Mount		M16					video	H.265; H.264; H.264H; H.264B; MJPEG (Only suppo
Focal Length		2.8 mm; 3.6 mm					Video Compression	by the sub stream)
Max. Apertur Field of View		F1.0 2.8 mm: H: 111°; V: 60°; D: 135°					Al Coding	AI H.265; AI H.264 *Includes smart codec technology, Smart H.265+ a Smart H.264+.
Iris Control			5°; V: 51°; D: 11	4				Main stream: 2688 × 1520@(1 fps-25/30 fps)
Close Focus E	Distance	2.8 mm: 2 m (6.56 ft) 3.6 mm: 3.5 m (11.48 ft)						Sub stream: 704 × 576@(1 fps –25 fps)/704 × 480(fps–30 fps) Third stream: 1920 × 1080@(1 fps–25/30 fps)
	Lens		Observe	Pecognize	Identify		Video Frame Rate	Fourth stream: $1280 \times 720@(1 \text{ fps}-25/30 \text{ fps})$ *The values above are the max. frame rates of each stream; for multiple streams, the values will l
	FCII2	Detect 56.6 m	22.6 m	Recognize	Identify 5.7 m			
	2.8 mm	(185.70 ft)	(74.75 ft)	(37.07 ft)	5.7 m (18.70 ft)			subjected to the total encoding capacity.
	3.6 mm	69.0 m	27.6 m	13.8 m	6.9 m		Streaming Capability	4 streams
DORI Distance	(EN-62676-4)	*DORI (Detect, Observe, Recognize, Identify) is a standard system [EN-62676-4) for defining the ability of a person viewing the					Resolution	4M (2688 × 1520/2560 × 1440); 3M (2048 × 1536/ × 1296); 1080p (1920 × 1080); 1.3M (1280 × 960); (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 480); CIF (352 × 288/352 × 240)
		nguish persons in this table do	•				Bit Rate Control	VBR;CBR
		r intelligent function distances, refer to installation ioning manual/project design tool.					Video Bit Rate	H.264: 3 kbps–16384 kbps H.265: 3 kbps–16384 kbps
Intelligend	ce						Day/Night	Auto(ICR)/Color/B/W
IVS (Perimeter Protection)		Intrusion, tripwire, fast moving (the three functions support the classification and accurate detection of					BLC	Yes
		vehicle, animal and human); loitering detection, people gathering, parking detection, stay detection. Offers Perimeter Protection Large-Scale Al Models to extend the target detection range and reduce the rate of false alarm. Supports self-learning, it filters out false alarms.				HLC	Yes	
						WDR	140 dB	
						Scene Self-adaptation (SSA)	Yes	
SMD		SMD 4.0					White Balance	Auto; natural; street lamp; outdoor; manual; regio
							c balance	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 \times 1520) resolution and lower)
Mirror	Yes
Privacy Masking	4 mosaics or 8 color blocks
LDC	Yes
Audio	
Built-in MIC	Yes, built-in dual Mic
Built-in Speaker	Yes, built-in speaker
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	
Light Warning	Warm light warning Flash/Solid on duration: 5 s–30 s

Light Warning	Flash frequency: high, medium, low	
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		
RS-485	1 (baud rate range: 1200 bps–115200 bps)	
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: dry contact, 1,000 mA 30 VDC/500 mA 50 VAC	
Power Output	12 VDC power output, max. current 165 mA, peak current 700 mA	
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: 4.1 W (12 VDC); 4.8 W (PoE) Max. (IR on + WDR + intelligence on + siren and light active deterrence): 21.6 W (12 VDC); 24.2 W (PoE)	
еРоЕ	Yes	
Environment		
Operating Temperature	$-40~^{\circ}$ C to +60 $^{\circ}$ C ($-40~^{\circ}$ F to +140 $^{\circ}$ 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	127.6 mm × Φ122.0 mm (5.02" × Φ4.80")	
Net Weight	0.92 kg (2.03 lb)	
Gross Weight	1.15 kg (2.54 lb)	

Ordering Information				
Туре	Model	Description		
IP CAMERA	DH-IPC-HDW5459H-ASE- PV-PRO	4MP WizColor Fixed-focal Eyeball WizMind Network Camera		



Туре	Model	Description
	DH-PFA106	Mount Adapter
	DH-PFB220C	Ceiling Mount Bracket
	DH-PFA151	Corner Mount Bracket
	DH-PFB305W	Wall Mount Bracket
	DH-PFA150	Pole Mount Bracket
Accessories (Optional)	DH-PFA156	Pole Mount Bracket
	DH-PFB2203W	Wall Mount Bracket
	DH-PFA137	Junction Box
	DH-PFM320D-EN	DC12V2A power adapter
	PFM900-E	Integrated Mount Tester
	DHI-TF-P100/1TB	MicroSD Card

Junction Mount	Pole Mount(Vertical)	Wall Mount	

Dimensions (mm[inch])

mm [inch]

Accessories

Optional:



DH-PFA106 Mount Adapter





Corner Mount Bracket

DH-PFB220C

Ceiling Mount Bracket

DHI-TF-P100/1TB

MicroSD Card



Wall Mount Bracket





DH-PFB2203W

Wall Mount Bracket

DH-PFA150

Pole Mount Bracket

DH-PFM320D-EN DC12V2A power adapter



DH-PFA156

DH-PFA137

Junction Box





PFM900-E Integrated Mount Tester

