

# DH-IPC-HDW5449H-ZE-LED

4MP Full-color Vari-focal Warm LED Eyeball WizMind Network Camera



ePoE

Wiz Mind

Launched by Dahua Technology, Dahua WizMind is a full portfolio of solutions composed of project-oriented products including IPC, 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 full color solution and deep learning algorithm, Dahua WizMind 5 Series network camera has various intelligent functions, including video metadata, face detection, perimeter protection and people counting,etc. which greatly improve the accuracy of video analysis. The series camera supports dust-proof function, waterproof function and vandal-proof function, complying with the standards of IP67 and IK10 (Supported by some select models).

#### Functions

#### **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.

#### 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.

#### **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.

## \*The parameters and datasheets below can only be applied to 5449-ZE-S2 series.

- $\cdot$  4-MP 1/1.8" CMOS image sensor, low illuminance, high image definition.
- · Outputs max. 4 MP (2688 × 1520) @30 fps.
- · Built-in warm light and the max. illumination distance is 50 m.
- ROI, SVC, SMART H.264 +/H.265+, AI H.264/H.265, 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,IVS, face detection, smart object detection, and people counting, etc.
- Alarm: 2 in, 1 out; audio: 1 in, 1 out; supports max. 512 G Micro SD card, built-in dual Mic and speaker.
- · 12 VDC/PoE power supply; ePoE.
- · IP67 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 yearly/monthly/daily reports to meet your requirements

#### **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, wide voltage)

IP67: The camera passes a series of strict test on dust and soak. It has dust-proof function, and the enclosure can works normal after soaking in 1 m deep water for 30 minutes.

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.

#### Full-color

With high-performance sensor and large aperture lens, Dahua Full-color technology can display clear colorful image in the environment of ultra-low illuminance. With this photosensitivity technology, the camera can capture more available light, and display more colorful image details.

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#### **Technical Specification**

Camera					
Image Sensor		1/1.8" CMOS			
Max. Resolution		2688 (H) × 1520 (V)			
ROM		256 MB			
RAM		1 GB			
Scanning System		Progressive			
Electronic Shutter Speed		Auto/Manual 1/3 s-1/100,000 s			
Min. Illumination		0.0005 lux@F1.0			
S/N Ratio		> 56 dB			
Illumination Distance		Up to 50 m (164.04 ft)			
Illuminator On/Off Control		Auto; Manual; Zoomprio			
Illuminator Number		4 (Warm light)			
Angle Adjustment		Pan: 0°–360° Tilt: 0°–78° Rotation: 0°–360°			
Lens					
Lens Type		Motorized vari-focal			
Lens Mount		Module			
Focal Length		2.7 mm–12 mm			
Max. Apertu	re	F1.0 (Constant)			
Field of View		H: 104.7°-56.1° V: 54.9°-31.4° D: 127.6°-64.9°			
Iris Control		Auto			
Close Focus	Distance	1.5 m (4.92 ft)			
	Lens	Detect	Observe	Recognize	Identify
DORI Distance	W	65.10 m (213.58 ft)	26.04 m (85.43 ft)	13.02 m (42.72 ft)	6.51 m (21.36 ft)
	т	111.45 m (365.65 ft)	44.58 m (146.26 ft)	22.29 m (73.13 ft)	11.14 m (36.55 ft)
	*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. The numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and				

For intelligent function distances, refer to installation and commissioning manual/project design tool.

#### Intelligence

IVS (Perimeter Protection)	Intrusion, tripwire, fast moving (the three functions support the classification and accurate detection of vehicle and human); loitering detection, people gathering, and parking detection
Smart Object Detection	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.

Face Detection	Face detection; 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 or one-inch photo; snapshot strategies (real-time snapshot, quality priority and optimization snapshot); face angle filter; optimization time setting.		
People Counting	Tripwire people counting and people counting in area; generating and exporting report (day/month/year); 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, 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: extracts 6 attributes for face and 8 attributes for human body.		
Smart Search	Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos		
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: 2688× 1520@(1 fps-25/30 fps) Sub stream: D1@(1 fps-25/30 fps) Third stream: 1080p@(1 fps-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	3 streams		
Resolution	2688 × 1520; 2560 × 1440; 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–16384 kbps		
Day/Night	Color/B/W		
BLC	Yes		
HLC	Yes		
WDR	140 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)		
Defog	Yes		
Image Rotation	0°/90°/180°/270° (Support 90°/270° with 4M resolution and lower)		

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Mirror	Yes				
Privacy Masking	4 areas				
LDC	Yes				
Audio					
Built-in MIC	Yes, built-in dual Mic				
Built-in Speaker	Yes, built-in speaker				
Audio Compression	PCM; G.711a; G.711Mu; 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; scene changing; audio detection; voltage detection; external alarm; face detection; SMD; security exception; people detection; area people counting; stay alarm; people counting; people number exception detection				
Network					
Network Port	RJ-45 (10/100 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; 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 11 and later Chrome: Chrome 45 and later Firefox: Firefox 46 and later Safari: Safari 12 and later				
Management Software	SmartPSS Lite; DSS; DMSS				
Mobile Client	iOS; Android				
Cyber Security	Video encryption; firmware encryption; configuration encryption; 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				
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	2 channel in: wet contact, 5mA 3V–5V DC				
Alarm Output	1 channel out: wet contact, 300mA 12V DC				
Power					
Power Supply	12 VDC/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: 2.7 W (12 VDC); 3.7 W (PoE) Max. (H.265+ warm light+ intelligence on + three streams): 9.3 W (12 VDC); 11.1 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)			
Protection	IP67			
Storage Humidity	10%–95% (RH), non-condensing			
Structure				
Casing Material	Inner core: metal Cover: metal			
Product Dimensions	Φ122.0mm × 127.6 mm (4.80" × 5.02")			
Net Weight	885 g (1.95 lb)			
Gross Weight	1120 g (2.47 lb)			

Ordering Information					
Туре	Model	Description			
4MP Camera	DH-IPC-HDW5449H-ZE-LED	4MP Full-color Vari-focal Warm LED Eyeball WizMind Network Camera			
	IPC-HDW5449H-ZE-LED	4MP Full-color Vari-focal Warm LED Eyeball WizMind Network Camera			
Accessories (Optional)	PFA137	Junction Box			
	PFW203W	Wall Mount Bracket			
	PFA106	Mount Adapter			
	PFB220C	Ceiling Mount Bracket			
	PFA152-E	Pole Mount Bracket			
	PFM321D	12 VDC 1A Power Adapter			
	PFM900-E	Integrated Mount Tester			
	TF-P100	MicroSD Memory Card			

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#### Accessories

#### Optional:



PFA137 Junction Box



PFB203W Wall Mount Bracket



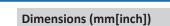
PFA152-E Pole Mount Bracket



PFA106

Mount Adapter

PFM321D 12 VDC 1A Power Adapter



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PFB220C

Ceiling

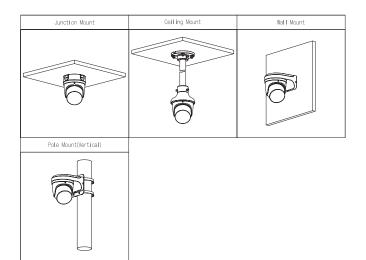
Mount Bracket



Integrated Mount Tester



TF-P100 MicroSD Memory Card



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