

DH-IPC-HDW3849H-AS-PV

8MP Full-color Active Deterrence Fixed-focal Eyeball WizSense Network Camera



Wiz Sense

Launched by Dahua Technology, WizSense is a series of Al products and solutions that adopt independent Al chip and deep learning algorithm. It focuses on human and vehicle with high accuracy, enabling users to fast act on defined targets. Based on Dahua's advanced technologies, WizSense provides intelligent, simple and inclusive products and solutions.

Series Overview

With advanced deep learning algorithm, Dahua WizSense 3 Series network camera supports intelligent functions, such as perimeter protection and smart motion detection. In addition, with full-color technology, it provides a better image effect in the condition of low illuminance.

Functions

SMD Plus

With intelligent algorithm, Dahua Smart Motion Detection technology can categorize the targets that trigger motion detection and filter the motion detection alarm triggered by non-concerned targets to realize effective and accurate alarm.

Smart H.265+ & Smart H.264+

With advanced scene-adaptive rate control algorithm, Dahua smart encoding technology realizes the higher encoding efficiency than H.265 and H.264, provides high-quality video, and reduces the cost of storage and transmission.

Full-color

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

Siren and Light Active Deterrence

Dahua siren and light active deterrence network camera supports light alarm and voice alarm when perimeter event occurs, to realize the deterrence and effective intervention. The camera is built in multiple voices for selection, and supports customized voice importing.

- 8MP, 1/2.8" CMOS image sensor, low illuminance, high image definition
- Outputs max.8MP (3840 × 2160) @20 fps (AI function enabled by default)and supports 8MP (3840 × 2160) @25/30 fps (with AI function disabled)
- H.265 codec, high compression rate, low bit rate
- Built-in warm illuminator, and the max. illumination distance: 30 m
- ROI, Smart H.265+/Smart H.264+, flexible coding, applicable to various bandwidth and storage environments
- Rotation mode, WDR, 3D NR, HLC, BLC, digital •

watermarking, applicable to various monitoring scenes

- Intelligent detection: Intrusion, tripwire (support the classification and
 accurate detection of vehicle and human)
- Abnormality detection: Motion detection, video tampering, scene changing, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection
- Supports sound and light alarm linkage. When an alarm is triggered, the camera links sound alarm and light flashing
- Supports one-tap disarming. You can disarm the events of alarm output, sending email, audio, and light in the configured period
- Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card, built-in Mic and speaker
- 12V DC/PoE power supply
- IP67 protection
- SMD Plus
- Red and blue flashlight alarm



Cyber Security

Dahua network camera is equipped with a series of key security technologies, such as security authentication and authorization, access control, trusted protection, encrypted transmission, and encrypted storage, which improve its security defense and data protection, and prevent malicious programs from invading 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 $\pm 30\%$ input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

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Technical Specification

Camera					
Image Sensor		1/2.8" 8Megapixel progressive CMOS			
Max. Resolution		3840(H) × 2160 (V)			
ROM		128 MB			
RAM		512 MB			
Scanning System		Progressive			
Electronic Shutter Speed		Auto/Manual 1/3 s-1/100,000 s			
Min. Illumination		0.007 Lux @ F1.4			
S/N Ratio		> 56 dB			
Illumination Distance		30 m (98.4 ft)			
Illuminator On/Off Control		Auto/Manual			
Illuminator Number		1 (Warm light)			
Pan/Tilt/Rotation Range		Pan: 0°–360° Tilt: 0°–78° Rotation: 0°–360°			
Lens					
Lens Type		Fixed-focal			
Mount Type		M12			
Focal Length		2.8 mm; 3.6 mm			
Max. Aperture		F1.4			
Field of View		2.8 mm: Horizontal 107° × Vertical 56° × Diagonal 127° 3.6 mm: Horizontal 89° × Vertical 46° × Diagonal 102°			
Iris Type		Fixed			
Close Focus Distance		2.8 mm: 1.5 m (4.9 ft) 3.6 mm: 2.2m (7.2 ft)			
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	87.7m (287.7 ft)	35.1 m (115.2 ft)	17.5m (57.4 ft)	8.8m (28.8 ft)
	3.6 mm	110.3m (361.8 ft)	44.1m (144.7ft)	22.1m (72.5 ft)	11m (36 ft)
Professional, intelligent					
Tripuiro			ision (support	the classificatio	n and

IVS (Perimeter Protection)	Tripwire; intrusion (support the classification and accurate detection of vehicle and human)	
Intelligent 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+	
Video Frame Rate	Main stream: 3840 × 2160 @(1–20 fps by default) 3840 × 2160 @(1–25/30 fps with Al function disabled) sub stream: 704 × 576 @ (1–25 fps)/704 × 480 @ (1–30 fps) third stream:1280 × 1080 @ (1–25/30 fps)	
Stream Capability	3 streams	

Resolution	8M (3840 × 2160); 6M (3072 × 2048); 5M (3072 × 1728/2592 × 1944); 4M (2688 × 1520); 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-8192 kbps H.265: 12 kbps-8192 kbps
Day/Night	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/Manual
Noise Reduction	3D NR
Motion Detection	OFF/ON (4 areas)
Region of Interest (RoI)	Yes (4 areas)
Smart Illumination	Yes
Image Rotation	0°/90°/180°/270° (Support with 1920 \times 1080 resolution and lower)
Mirror	Yes
Privacy Masking	4 areas
Audio	
Built-in MIC	Yes
Audio Compression	PCM, G.711a, G.711Mu, G726
Alarm	
Alarm Event	No SD card; SD card full; SD card error; service life warning (supported by Dahua card); network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; audio detection; voltage detection; external alarm; SMD; safety exception; light alarm; sound alarm (11 built-in sounds and custom voices importing)importing)
Network	
Network	RJ-45 (10/100 Base-T)
SDK and API	Yes
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
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
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; Milestone; Genetec; P2P
User/Host	20 (Total bandwidth: 80 M)
Storage	FTP; SFTP; Micro SD card (support max. 256 G); NAS

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Management SoftwareSmart PSS; DSS; DMSSMobile PhoneIOS; AndroidCertificationCE-LVD: EN62368-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU PCC 47 CFR FCC Part 15, Subpart BPortI channel (RCA port)Audio Input1 channel (RCA port)Audio Output1 channel (RCA port)Alarm Input1 channel in: 5mA 3V–5V DCAlarm Output1 channel out: 300mA 12V DCPowerI channel out: 300mA 12V DCPower Supply12V DC/PoE (802.3af)Power ConsumptionBasic power consumption: 3.1W (DC12V); 3.5W (POE) Max. power consumption (WDR + H.265 + red and blue lights flashing alternately + warm light + sound alarm): 7.8W (DC12V); 8.2W (POE)Portionment-40°C to +60°C (-40°F to +140°F)/Less than 95% RHStorage Conditions-40°C to +60°C (-40°F to +140°F)Protection GradeIP67	Browser	IE: IE8 and later Chrome Firefox Safari: Safari 12 and later
CertificationCertificationCE-LVD: EN62368-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart BPortAudio Input1 channel (RCA port)Audio Output1 channel (RCA port)Alarm Input1 channel in: 5mA 3V–5V DCAlarm Output1 channel out: 300mA 12V DCPowerPower Supply12V DC/PoE (802.3af)Power ConsumptionBasic power consumption: 3.1W (DC12V); 3.5W (POE) Max. power consumption (WDR + H.265 + red and blue lights flashing alternately + warm light + sound alarm): 7.8W (DC12V); 8.2W (POE)Environment-40°C to +60°C (-40°F to +140°F)/Less than 95% RHStorage Conditions-40°C to +60°C (-40°F to +140°F)Protection GradeIP67	Management Software	Smart PSS; DSS; DMSS
CertificationCE-LVD: EN62368-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart BPortAudio Input1 channel (RCA port)Audio Output1 channel (RCA port)Alarm Input1 channel in: 5mA 3V-5V DCAlarm Output1 channel out: 300mA 12V DCPower2V DC/PoE (802.3af)Power Supply12V DC/PoE (802.3af)Power ConsumptionAsic power consumption: 3.1W (DC12V); 3.5W (POE) Max. power consumption (WDR + H.265 + red and blue lights flashing alternately + warm light + sound alarm): .8W (DC12V); 8.2W (POE)Finvironment	Mobile Phone	IOS; Android
CertificationCE-EMC: Electromagnetic Compatibility Directive 2014/30/EU EC: 47 CFR FCC Part 15, Subpart BPortAudio Input1 channel (RCA port)Audio Output1 channel (RCA port)Alarm Input1 channel in: 5mA 3V–5V DCAlarm Output1 channel out: 300mA 12V DCPower12V DC/PoE (802.3af)Power ConsumptionBasic power consumption: 3.1W (DC12V); 3.5W (POE) Max. power consumption (WDR + H.265 + red and blue gints flashing alternately + warm light + sound alarm): 7.8W (DC12V); 8.2W (POE)Forvironment-40°C to +60°C (-40°F to +140°F)/Less than 95% RHStorage Conditions-40°C to +60°C (-40°F to +140°F)Protection GradeIP67	Certification	
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Audio Output1 channel (RCA port)Alarm Input1 channel in: 5mA 3V–5V DCAlarm Output1 channel out: 300mA 12V DCPower1 channel out: 300mA 12V DCPower Supply12V DC/PoE (802.3af)Power ConsumptionBasic power consumption: 3.1W (DC12V); 3.5W (POE) Max. power consumption (WDR + H.265 + red and blue lights flashing alternately + warm light + sound alarm): .8W (DC12V); 8.2W (POE)Environment-40°C to +60°C (-40°F to +140°F)/Less than 95% RHStorage Conditions-40°C to +60°C (-40°F to +140°F)Protection GradeIP67	Port	
Alarm InputI channel in: 5mA 3V–5V DCAlarm Output1 channel out: 300mA 12V DCPowerI channel out: 300mA 12V DCPower Supply12V DC/PoE (802.3af)Power ConsumptionBasic power consumption: 3.1W (DC12V); 3.5W (POE) Max. power consumption (WDR + H.265 + red and blue lights flashing alternately + warm light + sound alarm): .8W (DC12V); 8.2W (POE)Environment-40°C to +60°C (-40°F to +140°F)/Less than 95% RHStorage Conditions-40°C to +60°C (-40°F to +140°F)Protection GradeIP67	Audio Input	1 channel (RCA port)
Alarm OutputI channel out: 300mA 12V DCPowerPowerPower Supply12V DC/PoE (802.3af)Power ConsumptionBasic power consumption: 3.1W (DC12V); 3.5W (POE) Max. power consumption (WDR + H.265 + red and blue lights flashing alternately + warm light + sound alarm): 7.8W (DC12V); 8.2W (POE)Environment-40°C to +60°C (-40°F to +140°F)/Less than 95% RHStorage Conditions-40°C to +60°C (-40°F to +140°F)Protection GradeIP67	Audio Output	1 channel (RCA port)
Power12V DC/PoE (802.3af)Power Supply12V DC/PoE (802.3af)Power ConsumptionBasic power consumption: 3.1W (DC12V); 3.5W (POE) Max. power consumption (WDR + H.265 + red and blue lights flashing alternately + warm light + sound alarm): 7.8W (DC12V); 8.2W (POE)Environment	Alarm Input	1 channel in: 5mA 3V–5V DC
Power Supply12V DC/PoE (802.3af)Power ConsumptionBasic power consumption: 3.1W (DC12V); 3.5W (POE) Max. power consumption (WDR + H.265 + red and blue lights flashing alternately + warm light + sound alarm): 7.8W (DC12V); 8.2W (POE)Environment	Alarm Output	1 channel out: 300mA 12V DC
Power ConsumptionBasic power consumption: 3.1W (DC12V); 3.5W (POE) Max. power consumption (WDR + H.265 + red and blue lights flashing alternately + warm light + sound alarm): 7.8W (DC12V); 8.2W (POE)Environment	Power	
Power ConsumptionMax. power consumption (WDR + H.265 + red and blue lights flashing alternately + warm light + sound alarm): 7.8W (DC12V); 8.2W (POE)Environment-40°C to +60°C (-40°F to +140°F)/Less than 95% RHStorage Conditions-40°C to +60°C (-40°F to +140°F)Protection GradeIP67	Power Supply	12V DC/PoE (802.3af)
Operating Conditions-40°C to +60°C (-40°F to +140°F)/Less than 95% RHStorage Conditions-40°C to +60°C (-40°F to +140°F)Protection GradeIP67	Power Consumption	Max. power consumption (WDR + H.265 + red and blue lights flashing alternately + warm light + sound alarm):
Storage Conditions -40°C to +60°C (-40°F to +140°F) Protection Grade IP67	Environment	
Protection Grade IP67	Operating Conditions	–40°C to +60°C (–40°F to +140°F)/Less than 95% RH
	Storage Conditions	-40°C to +60°C (-40°F to +140°F)
Characterize	Protection Grade	IP67
Structure	Structure	
Casing Metal	Casing	Metal
Dimensions Φ122.0 mm × 110.9 mm (4.8" × 4.4")	Dimensions	Φ122.0 mm × 110.9 mm (4.8" × 4.4")
Net Weight 754 g (1.7 lb)	Net Weight	754 g (1.7 lb)
Gross Weight 915 g (2.0 lb)	Gross Weight	915 g (2.0 lb)

	PFB205W	Wall Mount
	PFB220C	Ceiling Mount
	PFA152-E	Pole Mount
8MP Camera	PFM321D	12V DC 1A Power Adapter
camera	LR1002-1ET/1EC	Single-port Long Reach Ethernet over Coax Extender
	PFM900-E	Integrated Mount Tester
	PFM114	TLC SD Card

Accessories

Optional



PFA152-E

Pole Mount

PFM900-E

Tester

Junction Mount

PFA137 Junction Box

PFB205W Wall Mount



Ceiling Mount



Adapter



LR1002-1ET/1EC Single-port Long Reach Ethernet over Coax Extender



Integrated Mount



Wall Mount Ceiling Mount Ð ð











Ordering Information Model

Туре

8MP Camera	DH-IPC-HDW3849HP-AS-PV	8MP Full-color Active Deterrence Fixed-focal Eyeball WizSense Network Camera, PAL
	DH-IPC-HDW3849HN-AS-PV	8MP Full-color Active Deterrence Fixed-focal Eyeball WizSense Network Camera, NTSC
	IPC-HDW3849HP-AS-PV	8MP Full-color Active Deterrence Fixed-focal Eyeball WizSense Network Camera, PAL
	IPC-HDW3849HN-AS-PV	8MP Full-color Active Deterrence Fixed-focal Eyeball WizSense Network Camera, NTSC
	PFA137	Junction Box

Dimensions (mm[inch])



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