

DH-IPC-HDBW3649E-AS-IL

6MP Smart Dual Light Fixed-focal Dome WizSense Network Camera



Wiz Sense

Launched by Dahua Technology, WizSense is a series of AI products and solutions that adopt independent AI 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. With starlight technology, this series camera provides a better image effect in the condition of low illuminance.

Functions

AcuPick

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

AI SSA

Dahua AI Scene Self-adaptation (AI SSA) adopts deep learning algorithms to detect environmental conditions, such as rain, fog, backlight, low light and flicker, to adjust the parameters of the image to suit the conditions, ensuring that clear images are always produced.

SMD 4.0

Dahua Smart Motion Detection technology works with intelligent algorithms to classify targets that trigger motion detection alarms. It filters out objects that are not targets, such as small and large animals, to avoid triggering false alarms. With an AI NVR, Quick Pick technology becomes available, allowing you to easily search for and pick out human and vehicle targets from SMD event videos, prioritizing the highest matches.

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.

- 6-MP 1/2.7" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 6 MP (3288 ×1850)@25/30 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in IR LED and warm light , the max. IR illumination distance is 30 m and the max. warm light distance is 30 m.
- ROI, 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.
- Intelligent monitoring: Intrusion, tripwire (the two function 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.
- Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 512 G Micro SD card; built-in Mic.
- 12 VDC/PoE power supply.
- IP67 and IK10 protection.
- SMD 4.0.
- Supports AI SSA.
- SMD area can be set in warm light areas that support triggering alarms.



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.

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.

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.

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Technical Specification Camera 1/2.7" CMOS Image Sensor 3288 (H) × 1850 (V) Max. Resolution ROM 256 MB 1 GB RAM Scanning System Progressive Electronic Shutter Speed Auto/Manual 1/3 s-1/100,000 s 0.005 lux@F1.4 (Color, 30 IRE) 0.0005 lux@F1.4 (B/W, 30 IRE) Min. Illumination 0 lux (Illuminator on) S/N Ratio >56 dB Up to 30 m (98.43 ft) (IR) Illumination Distance Up to 30 m (98.43 ft) (Warm light) Illuminator On/Off Control Auto;Manual Illuminator Number 3 (IR LED); 4 (Warm light) Pan: 0°–355° Angle Adjustment Tilt: 0°-75° Rotation: 0°-355° Lens Lens Type Fixed-focal Lens Mount M12 Focal Length 2.8 mm; 3.6 mm Max. Aperture F1.4 2.8 mm: H: 110°; V: 58°; D: 132° Field of View 3.6 mm: H: 86°; V: 49°; D: 100° Iris Control Fixed 2.8 mm: 1.4 m (4.59 ft) Close Focus Distance 3.6 mm: 1.9 m (6.23 ft) Lens Detect Observe Recognize Identify 17.0 m 84.8 m 33.9 m 8.5 m 2.8 mm (278.22 ft) (111.22 ft) (55.77 ft) (27.89 ft) 19.7 m 98.7 m 39.5 m 9.9 m 3.6 mm (323.82 ft) (129.59 ft) (64.63 ft) (32.48 ft) DORI Distance *DORI (Detect, Observe, Recognize, Identify) is a standard system (EN-62676-4) for defining the ability of a person viewing the

*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 commissioning manual/project design tool.

Intelligence

IVS (Perimeter Protection)	Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human)
SMD	SMD 4.0
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	Adopt deep learning algorithms to adjust the parameters of the image to suit the conditions.	
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 sub stream)	
Al Coding	AI H.265; AI H.264 *includes SmartCodec Technology , Smart H.264+ / H.265+	
Video Frame Rate	Main stream: 3288 × 1850@(1–25/30 fps) Sub stream: 1920 × 1080@(1–25/30 fps) Third stream: 1920 × 1080@(1–25/30 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.	
Streaming Capability	3 streams	
Resolution	6M (3288 × 1850/3200 × 1800); 5M (2960 × 1688/2880 × 1620); 4M (2688 × 1520/2560 × 1440); 3M (2304 × 1296); 1080p (1920 × 1080); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)	
Bit Rate Control	VBR;CBR;ABR	
Video Bit Rate	H.264: 3 kbps–16384 kbps; H.265: 3 kbps–16384 kbps	
Day/Night	Auto(ICR)/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, 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 2688 × 1520 resolution and lower)	
Mirror	Yes	
Privacy Masking	8 areas	
LDC	Yes	
Audio		
Built-in MIC	Yes, built-in Mic	
Audio Compression	PCM; G.711a; G.711Mu; G.726; G.723	

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Alarm	
Alarm Event	No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; scene changing; audio detection; voltage detection; external alarm; SMD; security exception
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; SAMBA; PPPoE; SNMP; P2P
Interoperability	ONVIF (Profile S & Profile G & Profile T & Profile M); CGI
User/Host	20 (Total bandwidth: 64 M)
Storage	FTP; SFTP; Micro SD card (support max. 512 GB); NAS
Browser	IE: IE11; Chrome; Firefox
Management Software	Smart PSS Lite; 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
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/PoE (802.3af)
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: 3.7 W (12 VDC); 4.6 W (PoE); Max.: 6.4 W (12 VDC); 7.5 W (PoE) (H.265 + WDR + warm light + intelligence on)
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	89.1 mm × Φ111.7 mm (3.51" × Φ4.40")
Net Weight	528 g (1.16 lb)
Gross Weight	690 g (1.52 lb)

Ordering Information					
Туре	Model	Description			
IP CAMERA	DH-IPC-HDBW3649E-AS-IL	6MP Smart Dual Light Fixed-focal Dome WizSense Network Camera			
Accessories (Optional)	DH-PFA109	Mount Adapter			
	DH-PFB220C	Ceiling Mount Bracket			
	DH-PFB305W	Wall Mount Bracket			
	DH-PFA151	Corner Mount Bracket			
	DH-PFA150	Pole Mount Bracket			
	DH-PFA152-E	Pole Mount Bracket			
	DH-PFB203W	Wall Mount Bracket			
	DH-PFA136	Junction Box			
	DH-PFM321-EN	DC12V1A power adapter			
	DH-PFM320D-EN	DC12V2A power adapter			
	PFM900-E	Integrated Mount Tester			
	DHI-TF-P100/512GB	MicroSD Card			

Accessories

Optional:



DH-PFA109 Mount Adapter





Corner Mount Bracket



DH-PFB220C Ceiling Mount Bracket



DH-PFM321-EN

DC12V1A power adapter

Rev 002.000

DHI-TF-P100/512GB MicroSD Card



DH-PFA136 Junction Box



DH-PFA152-E Pole Mount Bracket

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DH-PFB305W Wall Mount Bracket



DH-PFM320D-EN

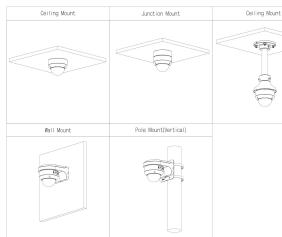
DH-PFA150

Pole Mount Bracket

DH-PFB203W

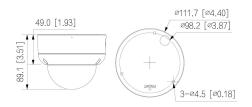
Wall Mount Bracket

PFM900-E Integrated Mount Tester



Dimensions (mm[inch])

mm [inch]



DC12V2A power adapter

