

# DH-IPC-HDW2649TM-S-IL

6MP Smart Dual Light Fixed-focal Eyeball 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 2 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

#### 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.

#### **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.

#### **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.

- 1/2.7" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 6 MP (3288×1850) @20 fps, and supports 2688×1520 (2688 × 1520) @25/30 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in warm light and IR LED, the max. IR distance is 30 m and the max. warm light distance is 30 m.
- ROI, SMART 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 functions support the classification and accurate detection of vehicle and human).
- Abnormality detection: Motion detection, video tampering, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection.
- Supports max. 256 G Micro SD card; built in Mic.
- 12 VDC/PoE power supply, easy for installation.
- IP67 protection.
- SMD Plus.



#### 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 Fullcolor 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.

#### **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 work normally 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.

## **Technical Specification**

## Camera

Camera					
Image Sensor		1/2.7" CMOS			
Max. Resolution		3288 (H) × 1850 (V)			
ROM		128 MB			
RAM		256 MB			
Scanning System		Progressive			
Electronic Shutter Speed		Auto/Manual 1/3 s-1/100,000 s			
Min. Illumination		0.007 lux@F1.6 (Color, 30 IRE) 0.0007 lux@F1.6 (B/W, 30 IRE) 0 lux (Illuminator on)			
S/N Ratio		>56 dB			
Illumination Distance		Up to 30 m (98.43 ft) (IR) Up to 30 m (98.43 ft) (Warm light)			
Illuminator On/Off Control		Auto;Manual			
Illuminator Number		1 (IR LED); 1 (Warm light)			
Angle Adjustment		Pan: 0°–360° Tilt: 0°–78° Rotation: 0°–360°			
Lens					
Lens Type		Fixed-focal			
Lens Mount		M12			
Focal Length		3.6 mm; 2.8 mm			
Max. Apertur	e	F1.6			
Field of View		2.8 mm: H: 112°; V: 61°; D: 132° 3.6 mm: H: 91°; V: 46°; D: 110°			
Iris Control		Fixed			
Close Focus Distance		2.8 mm: 1.0 m (3.28 ft) 3.6 mm: 1.7 m (5.58 ft)			
	Lens	Detect	Observe	Recognize	Identify
DORI	2.8 mm	61.2 m ( 200.79 ft)	24.5 m ( 80.38 ft)	12.2 m ( 40.03 ft)	6.1 m ( 20.01 ft)
	3.6 mm	85.4 m ( 280.18 ft)	34.2 m ( 112.20 ft)	17.1 m ( 56.10 ft)	8.5 m ( 27.89 ft)
Distance	(EN-62676-4)	for defining t	cognize, Ident he ability of a piects within a	person viewir	ng the video

(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 Plus
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)		
Smart Codec	Smart H.265+; Smart H.264+		
Video Frame Rate	Main stream: 3288 × 1850@(1–20 fps)/2688 × 1520@(1–25/30 fps) sub stream: 704 × 576@(1–25 fps)/704 × 480@(1–30 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	2 streams		
Resolution	6M (3288 × 1850/3200 × 1800); 5M (2880 × 1620); 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	VBR;CBR		
Video Bit Rate	H.264: 32 kbps–8192 kbps; H.265: 12 kbps–8192 kbps		
Day/Night	Auto(ICR)/Color/B/W		
BLC	Yes		
HLC	Yes		
WDR	120 dB		
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 (Rol)	Yes (4 areas)		
Smart Illumination	Yes		
Smart Dual Light	Yes		
Image Rotation	0°/90°/180°/270° (Support 90°/270° with 2688 × 1520 resolution and lower)		
Mirror	Yes		
Privacy Masking	4 areas		
Audio			
Built-in MIC	Yes, built-in Mic		
Audio Compression	G.711a; G.711Mu; PCM; G.726		
Alarm			
Alarm Event	No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; audio detection; voltage detection; 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; PPPoE; P2P; Bonjour; Auto Registration		

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Interoperability	ONVIF (Profile S & Profile G & Profile T); CGI		
User/Host	20 (Total bandwidth: 48 M)		
Storage	FTP; SFTP; Micro SD card (support max. 256 GB); NAS		
Browser	IE; Chrome; Firefox		
Management Software	Smart PSS Lite; DSS; DMSS; DoLynk Care		
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		
Power			
Power Supply	12 VDC; PoE		
Power Consumption	Basic: 2.5 W (12 VDC); 3.4 W (PoE); Max.: 4.6 W (12 VDC); 5.7 W (PoE) (H.265 + intelligence on+ WDR + illuminator intensity)		
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		
Structure			
Casing Material	Inner core: Metal; Cover: Metal; Decoration ring: Plastic; Quick install mounting plate: Metal		
Product Dimensions	99.1 mm × Φ121.9 mm (3.90" × Φ4.80")		
Net Weight	0.53 kg (1.17 lb)		
Gross Weight	0.67 kg (1.48 lb)		

Туре	Model	Description
IP CAMERA	DH-IPC-HDW2649TM-S-IL	6MP Smart Dual Light Fixed focal Eyeball WizSense Network Camera
	DH-PFA109	Mount Adapter
	DH-PFB220C	Ceiling Mount Bracket
	DH-PFA151	Corner Mount Bracket
	DH-PFB305W	Wall Mount Bracket
	DH-PFA150	Pole Mount Bracket
	DH-PFA152-E	Pole Mount Bracket
Accessories (Ontional)	DH-PFB205W-E	Wall Mount Bracket
Accessories (Optional)	G3416GW	G3/4" Water Joint
	DH-PFA130-E	Water-proof Junction Box
	DH-PFM321-EN	DC12V1A power adapter
	DH-PFM321D-EN	DC12V 1A power adapter
	DH-PFM320D-EN	DC12V2A power adapter
	РҒМ900-Е	Integrated Mount Tester
	DHI-TF-P100/256GB	MicroSD Card

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#### Accessories

#### Optional:



DH-PFA109 Mount Adapter



DH-PFB220C

Ceiling Mount Bracket

DH-PFB305W Wall Mount Bracket





G3416GW Wall Mount Bracket G3/4" Water Joint



DH-PFB205W-E

DH-PFM321-EN

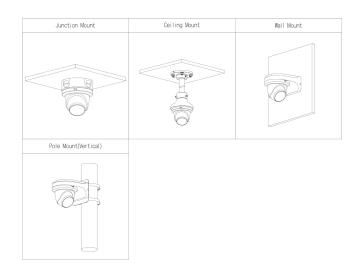




DH-PFM321D-EN

PFM900-E Integrated Mount Tester







DH-PFA151

Corner Mount Bracket

DH-PFA152-E Pole Mount Bracket

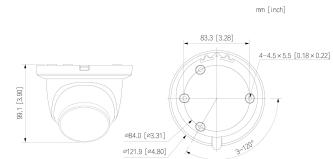


DH-PFA130-E Water-proof Junction Box



DH-PFM320D-EN DC12V1A power adapter DC12V 1A power adapter DC12V2A power adapter

Dimensions (mm[inch])



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