

DH-IPC-HFW2449S-S-IL

4MP Smart Dual Illumination Fixed-focal Bullet WizSense Network Camera



WizSense

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 Illuminators

Dahua Smart Dual Illuminators 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) are largely reduced.

- 4-MP 1/2.9" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 4 MP (2688 × 1520)@20 fps, and supports 2560 × 1440 @25/30 fps
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in warm light/IR LED, the max. illumination 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)
- 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 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.

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 ±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						
Image Sensor		1/2.9" CMOS				
Max. Resolution		2688 (H) × 1520 (V)				
ROM		128 MB				
RAM		128 MB				
Scanning System		Progressive				
Electronic Shutter Speed		Auto/Manual 1/3 s–1/100,000 s				
Min. Illumination		0.008 lux@F1.6 (Color, 30 IRE) 0.0008 lux@F1.6 (B/W, 30 IRE) 0 lux (Illuminator on)				
S/N Ratio		>56 dB				
Illumination Distance		30 m (98.43 ft) (IR), 30 m (98.43 ft) (Warm light)				
Illuminator On/Off Control		Auto;Manual				
Illuminator Number		1 (IR LED); 1 (Warm light)				
Pan/Tilt/Rotation Range		Pan: 0°–360° Tilt: 0°–90° Rotation: 0°–360°				
Lens						
Lens Type		Fixed-focal				
Lens Mount		M12				
Focal Length		2.8 mm; 3.6 mm				
Max. Aperture		F1.6				
Field of View		2.8 mm: H: 95°; V: 52°; D: 114°; 3.6 mm: H: 78°; V: 41°; D: 94°				
Iris Control		Fixed				
Close Focus Distance		2.8 mm: 0.9 m (2.95 ft); 3.6 mm: 1.6 m (5.25 ft)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify	
	2.8 mm	63.6 m (208.66 ft)	25.4 m (83.33 ft)	12.7 m (41.67 ft)	6.4 m (20.99 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)	
Intelligence						
IVS (Perimeter Protection)		Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human)				
Smart Search		Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos				
Video						
Video Compression		H.264H; H.265; H.264; H.264B; MJPEG (Only supported by the sub stream)				
Smart Codec		Smart H.265+; Smart H.264+				
Video Frame Rate		Main stream: 2688 × 1520@(1–20 fps)/2566 × 1440@ (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		4M (2688 × 1520); 3.6M (2560 × 1440); 3M (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–6144 kbps; H.265: 12 kbps–6144 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 (RoI)		Yes (4 areas)	
Smart Illumination		Yes	
Image Rotation		0°/90°/180°/270° (Support 90°/270° with 2688 ×1560 resolution and lower)	
Mirror		Yes	
Privacy Masking		4 areas	
Audio			
Built-in MIC		Yes	
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; SMD; voltage detection; 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; NTP; Multicast; ICMP; IGMP	
Interoperability		ONVIF (Profile S/Profile T); CGI; P2P; Milestone	
User/Host		6 (Total bandwidth: 36 M)	
Storage		FTP; SFTP; Micro SD card (support max. 256 GB)	
Browser		IE; Chrome; Firefox	
Management Software		DSS; DMSS	
Mobile Client		iOS; Android	
Cyber Security		Configuration encryption; Trusted execution; Digest; Security logs; WSSE; Account lockout; syslog; Video encryption; 802.1x; IP/MAC filtering; HTTPS; Trusted upgrade; Trusted boot; Generation and importing of X.509 certification	

Certification

Certifications	CE-LVD: EN 62368-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B
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Power

Power Supply	12 VDC/PoE (802.3af)
Power Consumption	Basic: 2.1 W (12 VDC); 2.5 W (PoE) Max. (H.265 + intelligence + WDR + warm light): 4.4 W (12 VDC); 5.2 W (PoE)

Environment

Operating Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Operating Humidity	≤95%
Storage Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Protection	IP67

Structure

Casing Material	Metal
Product Dimensions	166.2 mm × 70 mm × 70 mm (6.54" × 2.76" × 2.76") (L × W × H)
Net Weight	0.48 kg (1.06 lb)
Gross Weight	0.59 kg (1.30 lb)

Ordering Information

Type	Model	Description
4MP camera	DH-IPC-HFW2449S-S-IL	4MP Smart Dual Illumination Fixed-focal Bullet WizSense Network Camera
Accessories (Optional)	PFA134	Junction Box
	PFA130-E	IP66 Junction Box
	PFA152-E	Pole Mount Bracket
	PFM321D	12 VDC 1A Power Adapter
	PFM900-E	Integrated Mount Tester
	TF-P100	MicroSD Memory Card

Accessories

Optional:



PFA134
Junction Box



PFA130-E
IP66 Junction Box



PFA152-E
Pole Mount Bracket



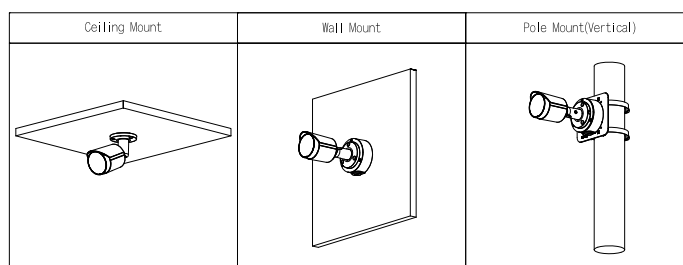
PFM321D
12 VDC 1A Power
Adapter



PFM900-E
Integrated Mount
Tester



TF-P100
MicroSD Memory Card



Dimensions (mm[inch])

