

DH-IPC-HFW2441S-S

4MP IR 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

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.

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 IR LED, and the max. illumination 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.
- IP67 protection.
- SMD Plus.



WDR

With advanced Wide Dynamic Range (WDR) technology, Dahua network camera provides clear details in the environment of strong brightness contrast. The bright and dark area can get clear video even in high brightness environment or with backlight shadow.

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 comprising 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		0.006 Lux@F1.6(Color,30IRE) 0.0006 Lux@F1.6(B/W,30IRE) 0 lux (Illuminator on)				
S/N Ratio		>56 dB				
Illumination Distance		30 m (98.43 ft) (IR LED)				
Illuminator On/Off Control		Auto; manual				
Illuminator Number		1 (IR LED)				
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		2.8mm: H: 95°; V: 52°; D: 114°; 3.6mm: 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)	
	*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)				
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)/2560 × 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); 4M (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)	
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	
Audio Compression	G.711a; G.711Mu; PCM; G.726	
Alarm		
Alarm Event	No SD card; SD card full; SD card error; network disconnecton; IP conflict; illegal access; moton detecton; video tampering; tripwire; intrusion; SMD; voltage detecton; security excepton	
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; P2P	
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI	
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: EN62368-1; CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU; FCC: 47 CFR FCC Part 15, Subpart B; UL/CUL: UL62368-1 & CAN/CSA C22.2 No. 62368-1-14
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Power

Power Supply	12 VDC/PoE (802.3af)
Power Consumption	Basic: 2.5 W (12 VDC); 3.3 W (PoE); Max. (ICR + H.265 + max. resolution + main stream + IR intensity + WDR + IVS): 4.2 W (12 VDC); 5.1 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-HFW2441S-S	4MP IR 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
	P100	MicroSD Memory Card

Accessories

Optional:



PFA134
Junction
Box



PFA130-E
IP66 Junction
Box



PFA152-E
Pole Mount
Bracket



PFM321D
12 VDC 1 A
Power Adapter



PFM900-E
Integrated
Mount Tester



P100
TLC SD
Card

Ceiling Mount	Wall Mount	Pole Mount(Vertical)

Dimensions (mm[inch])

