

DH-IPC-HFW3441E-(A)S-S2

4 MP IR Fixed-focal Bullet WizSense Network Camera





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

Dahua WizSense 3 Series Network Camera greatly saves on bandwidth and storage space through its Al Coding technology. Driven by its advanced deep learning algorithms, the camera supports intelligent functions such as perimeter protection, smart motion detection (SMD), Quick Pick, and Al SSA (Al Scene Self-adaptation), making it easy and convenient to use. Starlight technology and its large aperture lens also allow the camera to produce clear, vivid images even in poor lighting conditions.

Functions

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.

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.

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.

- 4-MP 1/3" CMOS image sensor, excellent low luminance performance and high definition of images.
- Outputs max. 4 MP (2688 × 1520) @25/30 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- · Built-in IR LED, max. IR distance: 50 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 detection: Intrusion, tripwire (support the classification and accurate detection of vehicle and human).
- Abnormality detection: Motion detection, privacy masking, 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 (Only AS supports); audio: 1 in, 1 out (Only AS supports); max. 256 G Micro SD card. built-in Mic.
- 12 VDC/PoE power supply facilitates installation.
- IP67 protection.
- SMD 4.0, AI SSA.













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.

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 ±30% (for some power supplies) input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

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.

Technical Specification				Al Coding	AI H.265 AI H.264			
Camera	Camera				Main stream: 2688 × 1520 @ (1–25/30) fps			
Image Sensor		1/3" CMOS						Sub stream 1: 704 × 576 @ (1–25 fps)/704 × 480 @ (1–30 fps) Sub stream 2: 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
Max. Resolut	tion	2688 (H) × 1520 (V)				Video Frame Rate		
ROM		128 MB						
RAM		512 MB					Stream Capability	3 streams
Scanning System		Progressive						4M (2688 × 1520); 3.6M (2560 × 1440); 3M (2048×1536) 3M (2304×1296); 1080p (1920 × 1080); 1.3M(1280 ×
Electronic Sh	nutter Speed	Auto/Manual	1/3 s-1/100,0	00 s			Resolution	960); 720p (1280 × 720); D1 (704 × 576/704×480); CIF (352 × 288/352 × 240); VGA (640 × 480)
Min. Illumination		0.005 lux@F1.4 (Color, 30 IRE) 0.0005 lux@F1.4 (B/W, 30 IRE) 0 lux (Illuminator on)					Bit Rate Control	CBR/VBR
S/N Ratio		>56 dB					Video Bit Rate	H.264: 3 kbps–8192 kbps H.265: 3 kbps–8192 kbps
Illumination	Illumination Distance		50 m (164.04 ft)				Day/Night	Auto (ICR)/Color/B/W
Illuminator C	On/Off Control	Auto/Manua	I				BLC	Yes
Illuminator N	Number	1 (IR LED)					HLC	Yes
Pan/Tilt/Rota	ation Range	Pan: 0°-360°	; Tilt: 0°–90°; R	otation: 0°–360)°		WDR	120 dB
Lens							Scene Self-adaptation (SSA)	Yes
Lens Type Lens Mount		Fixed-focal M12					White Balance	Auto; natural; street lamp; outdoor; manual; regional custom
Focal Length			2.8 mm; 3.6 mm; 6 mm				Gain Control	Auto
Max. Aperture		F1.4					Noise Reduction	3D NR
Field of View			2.8 mm: Horizontal:107°; vertical: 56°; diagonal: 127°				Motion Detection	OFF/ON (4 areas, rectangular)
Field of View	Field of View		3.6 mm: Horizontal:88°; vertical: 44°; diagonal: 105° 6 mm: Horizontal:54°; vertical: 29°; diagonal: 63°				Region of Interest (RoI)	Yes (4 areas)
Iris Control		Fixed					Defog	Yes
Close Focus Distance		2.8 mm: 0.7 m (2.30 ft) 3.6 mm: 1.3 m (4.27 ft) 6 mm: 2.6 m (8.53 ft)					AFSA	Yes
	Lens	Detect	Observe	Recognize	Identify		Image Rotation	0°/90°/180°/270° (support 90°/270° with 2688×1520 resolution and lower)
	2.8 mm	63.6 m (208.66 ft)	25.4 m (83.33 ft)	12.7 m (41.67 ft)	6.4 m (21.00 ft)		Mirror	Yes
DORI Distance	3.6 mm	85.4 m	34.2 m	17.1 m	8.5 m		Privacy Masking	4 areas
	5.0 111111	(280.18 ft)	(112.20 ft)	(56.10 ft)	(27.89 ft)		Audio	
	6 mm	124 m (406.82 ft)	49.6m (162.73 ft)	24.8 m (81.36 ft)	12.4 m (40.68 ft)		Built-in MIC	Yes
Intelligen	Intelligence						Audio Compression	G.711a; G.711Mu; PCM; G.726; G.723
IVS (Perimet	er Protection)	Tripwire, intrusion (support the classification and accurate detection of vehicle and human)					Alarm	
AI SSA	AI SSA		Yes				Alarm Event	- AS: No SD card; SD card full; SD card error; service life warning (only supported by Dahua card); network disconnection; IP conflict; illegal access; motion detection; video tampering; intrusion; tripwire; scene changing; audio detection; voltage detection; external alarm; SMD; safety exception -S: No SD card; SD card full; SD card error; service life
Quick Pick	Quick Pick		With AI NVR, quickly pick up the human/vehicle targets that users are interested in from SMD events					
Smart Search		Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos						
Video								warning (only supported by Dahua card); network disconnection; IP conflict; illegal access; motion
Video Compression		H.265; H.264; H.264H; H.264B; MJPEG (only supported by the sub stream)						detection; video tampering; intrusion; tripwire; scene changing; audio detection; voltage detection; SMD; safety exception
Smart Codeo	Smart Codec		Smart H.265+ Smart H.264+					

Wiz Sense | DH-IPC-HFW3441E-(A)S-S2

	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		
	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; P2P; Milestone; Genetec		
	User/Host	20 (Total bandwidth: 64 M)		
	Storage	FTP; SFTP; Micro SD card (support max. 256 G); NAS		
	Browser	IE: IE11 Chrome Firefox		
	Management Software	Smart PSS; DSS; DMSS		
	Mobile Client	IOS; Android		
	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		
	Port			
	Audio Input	1 channel (RCA port) (Only- AS supports)		
	Audio Output	1 channel (RCA port) (Only- AS supports)		
	Alarm Input	1 channel in: 5 mA 3–5 VDC (Only- AS supports)		
	Alarm Output	1 channel out: 300 mA 12 VDC (Only- AS supports)		
	Power			
	Power Supply	12 VDC/PoE (802.3af)		
	Power Consumption	Basic: 3.8 W (12 VDC); 4.6 W (PoE) Max. (WDR + IR intensity + Intelligence): 5.9 W (12 VDC); 7.2 W (PoE)		
	Environment			
	Operating Temperature	-40°C to +60 $^{\circ}\text{C}$ (–40 $^{\circ}\text{F}$ to 140 $^{\circ}\text{F}) / \text{Less than 95\%RH}$		
	Storago Tomporaturo	-40 °C to +60 °C (-40 °F to 140 °F)		
	Storage Temperature			
	Protection	IP67		
		IP67		
	Protection	IP67 Metal		
	Protection Structure			
	Protection Structure Casing	Metal 192.7 mm × 70.5 mm × 66.4 mm		
	Protection Structure Casing Product Dimensions	Metal 192.7 mm × 70.5 mm × 66.4 mm (7.59" × 2.77" × 2.61") (L × W × H)		

Ordering Information						
Туре	Model	Description				
ANAD Compare	DH-IPC-HFW3441E-AS-S2	4 MP IR Fixed-focal Bullet WizSense Network Camera				
4MP Camera	DH-IPC-HFW3441E-S-S2	4 MP IR Fixed-focal Bullet WizSense Network Camera				
	PFA130-E	Junction Box				
	PFA152-E	Pole Mount				
Accessories (optional)	PFM321D	12 VDC 1 A Power Adapter				
	PFM900-E	Integrated Mount Tester				
	TF-P100	TLC SD Card				

Accessories

Optional:







PFA130-E Junction Box

PFA152-E Pole Mount

PFM321D 12 VDC 1 A Power Adapter





PFM900-E Integrated Mount Tester TF-P100 TLC SD Card

Ceiling Mount	Junction Mount	Pole Mount(Vertical)

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Dimensions (mm[inch])

