

DH-IPC-HUM4431S-L5

4MP Fixed-focal Pinhole Network Camera



Series Overview

Dahua Pinhole series network camera includes one-in-all camera and separated camera. Separated camera can work with different lens to meet the requirements in different installation scenes. Pinhole Series camera is widely applied in hidden or small scenes such as banks and advertising screen.

Functions

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.

IVS

With advanced video algorithm, Dahua IVS technology supports intelligent functions, such as tripwire and intrusion.

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.

Starlight

With advanced image processing technology and optical technology, Dahua Starlight technology can provide clear colorful video in the environment of low illuminance. It widely applies to various environments of low illuminance.

Protection (Wide Voltage)

Wide voltage: The camera allows $\pm 30\%$ input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

- 4-MP 1/3" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 4 MP (2688 × 1520) @20 fps, and supports 3.6 MP (2560 × 1440) @25/30 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- 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 and tripwire.
- Abnormality detection: Motion detection, video tampering, scene changing, audio detection, network disconnection, IP conflict, illegal access, and voltage detection.
- · Audio: 1 in, 1 out; built in MIC.
- 12 VDC power supply.











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				Stream Capability	2 streams		
Camera			4M (2688 × 1520); 3.6 M (2560 × 1440); 3M (2304 × 1396); 10806 (1920 × 1080); 1.3M (1920 × 960); 7306				
Image Sensor		1/3" CMOS				Resolution	×1296); 1080p (1920 × 1080); 1.3M (1920 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF(352 × 288/352 × 240)
Max. Resolution		2688 (H) × 1520 (V)				Bit Rate Control	CBR/VBR
ROM		128 MB				Video Bit Rate	H.264: 3 kbps-6144 kbps H.265: 3 kbps-6144 kbps
RAM		128 MB				Day/Night	Color/B/W
Scanning Sys	tem	Progressive				BLC	Yes
Electronic Sh	utter Speed	Auto/Manual	1/3 s-1/100,0	00 s		HLC	Yes
Min. Illumina	ation		6 (Color, 30 IRE 1.6 (B/W, 30 IRE	,		WDR	120 dB
S/N Ratio		>56 dB				White Balance	Auto; natural; street lamp; outdoor; manual; regional
Lens						Gain Control	custom Auto; manual
Lens Type		Fixed-focal				Noise Reduction	3D NR
Lens Mount		M12				Motion Detection	OFF/ON (4 areas, rectangular)
Focal Length		2.0 mm; 2.8 r	mm; 3.6 mm; 8	mm			
Max. Apertu	re	F1.6				Region of Interest (RoI)	Yes (4 areas) 0°/90°/180°/270° (Support 90°/270° with 2688 × 1520
		L5-2.0 mm: Horizontal: 129°; Vertical: 69°; Diagonal: 154°				Image Rotation	resolution and lower)
Field of View	,	L5-2.8 mm: Horizontal: 95°; Vertical: 52°; Diagonal: 114° L5-3.6 mm: Horizontal: 78°; Vertical: 41°; Diagonal: 94° L5-8 mm: Horizontal: 40°; Vertical: 43°; Diagonal: 45°				Mirror	Yes
		L5-8 mm: Horizontal: 40°; Vertical: 23°; Diagonal: 45°			Bollal. 43	Privacy Masking	4 areas
Iris Control		Fixed L5-2.0 mm: 0.8 m(2.62 ft)				Audio	
Close Focus	Distance	L5-2.8 mm: 1.1 m (3.61 ft) L5-3.6 mm: 1.7 m (5.58 ft)				Built-in MIC	Yes
		L5-8 mm: 4.5 m(14.76 ft)				Audio Compression	G.711a; G.711Mu; PCM; G.726
	Lens	Detect	Observe	Recognize	Identify	Alarm	
	2.0 mm 2.8 mm	50.6 m (166.01 ft) 63.6 m	20.2 m (66.27 ft) 25.4 m	10.1 m (33.14 ft) 12.7 m	5.1 m (16.73 ft)	Alarm Event	Network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; audio detection; voltage detection; security exception
	2.6 111111	(208.66 ft)	(83.33 ft)	(41.67 ft)	(21.00 ft)	Network	
DORI	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)	Network Port	RJ-45 (10/100 Base-T)
Distance	8 mm	150.4 m (493.44 ft)	60.2 m (197.51 ft)	30.1 m (98.75 ft)	15.0 m (49.21 ft)	SDK and API	Yes
(EN-62676-4 distinguish p this table do		ct, Observe, Recognize, Identify) is a standard system) for defining the ability of a person viewing the video to ersons or objects within a covered area. The numbers in not reflect intelligent function distances. For intelligent ances, refer to installation and commissioning manual/			he video to numbers in intelligent	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
Smart Eve	ent					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; Bonjour
IVS		Intrusion; tripwire				Interoperability	ONVIF (Profile S/Profile T); CGI; P2P; Milestone
Video						User/Host	20 (Total bandwidth: 48 M)
Video Compression		H.265; H.264; H.264B; MJPEG (Only supported by the sub stream)				Storage	FTP; SFTP; NAS
Smart Codec		Smart H.265+; Smart H.264+				0	IE
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)				Browser	Chrome Firefox
						Management Software	SmartPSS Lite; DSS; DMSS
		*The values above are the max. frame rates of each stream; for multiple streams, the values will be subjected to the total encoding concity.				Mobile Client	iOS; Android
		to the total encoding capacity.					

Certification

Certifications	CE-LVD:EN62368-1; CE-EMC:Electromagnetic Compatibility Directive 2014/30/EU; 2.8 mm/3.6 mm: FCC:47 CFR FCC Part 15, Subpart B
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Port

Audio Input	1 channel (RCA port)
Audio Output	1 channel (RCA port)

Power

Power Supply	12 VDC		
Power Consumption	Basic: 1.4 W (12 VDC) Max. (H.265 + intelligence on + WDR): 1.8 W (12 VDC)		

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)	

Structure

Casing	Metal
Product Dimensions	31.0 mm \times 31.0 mm \times 37.1 mm (1.22" \times 1.22" \times 1.46") (L \times W \times H)
Net Weight	81 g (0.18 lb)
Gross Weight	138 g (0.30 lb)

Ordering Information		
Туре	Model	Description
4MP Camera	DH-IPC-HUM4431S-L5	4MP Fixed-focal Pinhole Network Camera
Accessories	PFM321D	DC12V1A Power Adapter

Accessories

Optional:



Power Adapter

Ceiling Mount	Plane Mount

Dimensions (mm[inch])

