

DH-IPC-HDBW2431R-ZS-S2

4MP Lite IR Fixed-focal Dome Network Camera



Series Overview

With upgraded H.265 encoding technology, Dahua Lite series network camera has efficient video encoding capacity, which saves bandwidth and storage space. This camera adopts the latest starlight technology and displays better color image in the condition of low illumination. It supports SD card storage, dust-proof function, waterproof function and vandal-proof function, complying with the standards of IP67 and IK10 (Supported by some select models).

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.

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.

- 4MP, 1/3" CMOS image sensor, low illuminance, high image definition
- Outputs 4MP (2560 × 1440)@25/30 fps, Max. supports 4MP (2688 × 1520)@20 fps
- H.265 codec, high compression rate, ultra-low bit rate
- · Built-in IR LED. max IR distance: 40 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 detection: Intrusion, tripwire
- Abnormality detection: Motion detection, video tampering, no SD card, SD card full, SD card error, network disconnected, IP conflict, illegal access, voltage detection
- · Supports max. 256 GB Micro SD card
- 12V DC/PoE power supply
- IP67, IK10 protection













IVS

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

Cyber Security

Dahua network camera is equipped with a series of key security technologies, such as security authentication and authorization, access control, trusted protection, encrypted transmission, and encrypted storage, which improve its security defense and data protection, and prevent malicious programs from invading the device. With UL CAP Certification, TÜV Rheinland Protected Privacy IoT Product Certification, and ETSI EN 303645 Certification, Dahua network camera better meets the demands of cyber security and privacy protection.

Protection (IP67, IK10, 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.

IK10: The enclosure can stand the punch more than 5 times from a 5 kg hammer falling from a height of 40 m (Impact energy is 20J). Wide voltage: The camera allows $\pm 30\%$ input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.





Technical Specification						Bit Rate Control	CBR/VBR	
Camera				Video Bit Rate	H.264: 32 kbps-6144 kbps H.265: 12 kbps-6144 kbps			
Image Sensor		1/3" 4Megapixel progressive CMOS				Day/Night	H.265: 12 kdps-6144 kdps Auto(ICR)/Color/B/W	
Max. Resolution		2688 (H) × 1520 (V)				BLC	Yes	
ROM		128 MB				HLC	Yes	
RAM		128 MB				WDR	120 dB	
Scanning System		Progressive				White Balance	Auto/natural/street lamp/outdoor/manual/regional	
Electronic Shutter Speed		Auto/Manual 1/3 s-1/100000 s					custom	
Min. Illumination		0.008 Lux @ F1.5				Gain Control	Auto/Manual	
S/N Ratio		>56 dB				Noise Reduction Motion Detection	3D NR	
Illumination Distance		40 m (131.23 ft)				Region of Interest(RoI)	OFF/ON (4 areas, rectangular)	
Illuminator On/O	off Control	Auto/Manual				Smart Illumination	Yes (4 areas)	
Illuminator Num	ber	2 (IR LED)					0°/90°/180°/270° (Supports 90°/270° with 2688 × 1520	
Pan/Tilt/Rotation Range		Horizonal: 0°- Vertical: 0°-7				Image Rotation	resolution and lower.)	
ran, my notation name		Rotation: 0°-355°				Mirror	Yes	
Lens						Privacy Masking	4 areas	
Lens Type		Motorized va	ri-focal			Alarm		
Mount Type Focal Length		ф14 2.7 mm—13.5 mm				Alarm Event	No SD card; SD card full; SD card error; network disconnection; IP conflict; motion detection; video tampering; tripwire; intrusion; illegal access; voltage	
Max. Aperture		F1.5					detection; safety exception	
Field of View		Horizontal: 10				Network	2) 45 (10/200 2 - 7)	
Field of View		Vertical: 55°–15° Diagonal: 124°–31°				Network	RJ-45 (10/100 Base-T)	
Iris Type		Fixed				SDK and API	Yes Video encryption; firmware encryption; configuration	
Close Focus Distance		0.8 m-0.8 m (2.62 ft-2.62 ft)				Cyber Security	encryption; Digest; WSSE; account lockout; security logs; IP/MAC filtering; generation and importing of X.509	
	Lens	Detect 64 m	Observe 25.6 m	Recognize 12.8 m	Identify 6.4 m	cyber security	certification; syslog; HTTPS; 802.1x; trusted boot; trusted execution; trusted upgrade	
DORI Distance	W	(209.97 ft)	(83.99 ft)	(41.99 ft)	(21 ft)		IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP;	
Cmart Evant	Т	(721.78 ft)	(288.71 ft)	(144.36 ft)	(72.18 ft)	Protocol	RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; PPPoE; Bonjour	
Smart Event		Tripwire; intrusion				Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone; Genetec	
Video						User/Host	20	
Video Compressi	ion	H.265; H.264; H.264B; MJPEG (only supported by the sub stream)				Storage	FTP; Micro SD card (support max. 256 G); NAS; SFTP	
Smart Codec		Smart H.265+/ Smart H.264+				Browser	IE Chrome Firefox	
Video Frame Rate		Main stream: 2688 × 1520 (1 fps-20 fps) 2560 × 1440 (1 fps-25/30 fps) Sub stream: 704 × 576 (1 fps-25 fps) 704 × 480 (1 fps-30 fps)				Management Software	Smart PSS; DSS; DMSS	
						Mobile Phone	IOS; Android	
						Certification		
Stream Capability		2 streams					CE-LVD: EN62368-1	
Resolution		2688 × 1520 (2688 × 1520); 2560 × 1440 (2560 × 1440); 2304 × 1296 (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)				Certification	CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07	



Power

Power Supply	12V DC/PoE (802.3af)
Power Consumption	< 6.5W

Environment

Operating Conditions	-30°C to $+60$ °C (-22 °F to $+140$ °F)/less than ≤ 95% RH		
Storage Temperature	-40°C to +60°C (-40°F to +140°F)		
Protection	IP67; IK10		

Structure

Casing	Metal
Dimensions	Ф122 mm × 88.9 mm (Ф4.80" × 3.50")
Net Weight	0.47 kg (1.04 lb)
Gross Weight	0.63 kg (1.39 lb)

Ordering Information Part Number Type Description 4MP Lite IR Fixed-focal Dome DH-IPC-HDBW2431RP-ZS-S2 Network Camera, PAL 4MP Camera 4MP Lite IR Fixed-focal Dome DH-IPC-HDBW2431RN-ZS-S2 Network Camera, NTSC PFA137 Junction Box PFB203W Wall Mount PFA152-E Pole Mount PFA200W Rain Shade PFA106 Mount Adapter PFB220C Celling Mount Accessories (optional) PFB200C In-Celling Mount DC12V1A Power Adapter PFM321D Single-port Long Reach Ethernet LR1002-1ET/1EC over Coax Extender PFM900-E Integrated Mount Tester PFM114 TLC SD Card

Accessories

Optional:







PFA137 Junction Box

7 PFB203W Box Wall Mount

PFA152-E Pole Mount







PFA200W Rain Shade

PFA106 Mount Adapter

PFB220C Celling Mount







PFB200C In-Celling Mount

PFM321D DC12V1A Power Adapter

LR1002-1ET/1EC Single-port Long Reach Ethernet over Coax Extender



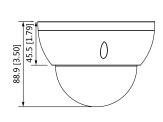
PFM900-E Integrated Mount Tester

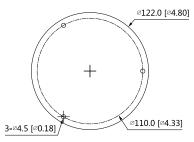


PFM114 TLC SD Card

Junction Mount	Wall Mount	Wall Mount	Pole Mount
PFA137	PFA137+PFA200W	PFB203W	PFB203W+PFA152-E
Ceiling Mount	In-Ceiling Mount		
PFA106+PFB220C	PFB200C		

Dimensions (mm[inch])





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