

DH-IPC-HDW2831T-AS-S2

8MP Lite IR Fixed-focal Eyeball Network Camera



- 8MP, 1/2.7" CMOS image sensor, low illuminance, high definition image
- Outputs max. 8MP (3840 × 2160)@15 fps, and supports 2688 × 1520 (2688 × 1520)@25/30 fps
- H.265 codec, high compression rate, ultra-low bit rate
- Built-in IR LED, max IR distance: 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 detection: Intrusion, tripwire
- Abnormality detection: Motion detection, video tampering, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, voltage detection
- Supports max. 256 GB Micro SD card, built-in MIC
- 12 V DC/PoE power supply
- IP67 protection



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 (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.

IVS

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

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 works normal after soaking in 1 m deep water for 30 minutes.

Wide voltage: The camera allows $\pm 30\%$ (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		1/2.7" CMOS			
Max. Resolution		3840 (H) × 2160 (V)			
ROM		128 MB			
RAM		256 MB			
Scanning System		Progressive			
Electronic Shutter Speed		Auto/Manual 1/3 s–1/100,000 s			
Min. Illumination		0.009 Lux@F2.0			
S/N Ratio		>56 dB			
Illumination Distance		30 m (98.43 ft)			
Illuminator On/Off Control		Auto/Manual			
Illuminator Number		2 (IR LED)			
Pan/Tilt/Rotation Range		Pan: 0°–360° Tilt: 0°–78° Rotation: 0°–360°			
Lens					
Lens Type		Fixed-focal			
Mount Type		M12			
Focal Length		2.8 mm 3.6 mm			
Max. Aperture		F2.0 F2.0			
Field of View		2.8 mm: Pan 105° × Tilt 56° × Diagonal 125° 3.6 mm: Pan 87° × Tilt 47° × Diagonal 104°			
Iris Type		Fixed			
Close Focus Distance		2.8 mm: 1.0 m (3.3 ft) 3.6 mm: 1.9 m (6.2 ft)			
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	74.7 m (245.1 ft)	29.9 m (98.1 ft)	14.9 m (48.9 ft)	7.5 m (24.6 ft)
	3.6 mm	106.7 m (350.1 ft)	42.7 m (140.1 ft)	21.3 m (69.6 ft)	10.7 m (35.1 ft)
Smart event					
IVS		Tripwire; intrusion			
Video					
Video Compression		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: 3840 × 2160 (1 fps–15 fps) 2688 × 1520 (1 fps–25/30 fps) Sub stream: 704 × 576 (1 fps–25 fps) 704 × 480 (1 fps–30 fps)			
Stream Capability		2 streams			

Resolution	3840 × 2160 (3840 × 2160); 3072 × 2048 (3072 × 2048); 3072 × 1728 (3072 × 1728); 2592 × 1944 (2592 × 1944); 2688 × 1520 (2688 × 1520); 3M (2048 × 1536); 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)	
	Bit Rate Control	CBR/VBR
	Video Bit Rate	H.264: 32 kbps–8192 kbps H.265: 12 kbps–8192 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(Rol)	Yes (4 areas)	
Smart Illumination	Yes	
Image Rotation	0°/90°/180°/270° (Supports 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; G.726	
Alarm		
Alarm Event	No SD card; SD card full; SD card error; network disconnection; IP conflict; motion detection; video tampering; tripwire; intrusion; illegal access; voltage detection; audio detection; safety exception	
Network		
Network	RJ-45 (10/100 Base-T)	
SDK and API	Yes	
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	
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	
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone; Genetec	
User/Host	20	
Storage	FTP; SFTP; Micro SD Card (support max. 256 GB); NAS	

Browser	IE Chrome Firefox
Management Software	Smart PSS; DSS; DMSS
Mobile Phone	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: UL60950-1 CAN/CSA C22.2 No.60950-1-07
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Power

Power Supply	12 V DC/PoE (802.3af)
Power Consumption	< 7.2 W

Environment

Operating Conditions	-40 °C to +55 °C (-40 °F to +131 °F)/less than ≤ 95% RH
Storage Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Protection	IP67

Structure

Casing	Metal + Plastic
Dimensions	100.9 mm × Φ109.9 mm (3.97" × Φ4.33")
Net Weight	0.39 kg (0.9 lb)
Gross Weight	0.56 kg (1.2 lb)

Ordering Information

Type	Part Number	Description
8MP Camera	DH-IPC-HDW2831TP-AS-S2	8MP Lite IR Fixed-focal Eyeball Network Camera, PAL
	DH-IPC-HDW2831TN-AS-S2	8MP Lite IR Fixed-focal Eyeball Network Camera, NTSC
Accessories (optional)	PFA130-E	Junction Box
	PFB203W	Wall Mount
	PFA152-E	Pole 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

Accessories

Optional:



PFA130-E
Junction Box



PFB203W
Wall Mount



PFA152-E
Pole 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	Pole Mount
PFA130-E	PFB203W	PFA152-E+PFB203W

Dimensions (mm[inch])

