

DH-IPC-HDBW2531R-ZS-S2

5MP Lite IR Vari-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 (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.

- 5MP, 1/2.7" CMOS image sensor, low illuminance, high image definition
- Outputs max. 5MP (2592 × 1944) @20 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: 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.

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.



Lite Series | DH-IPC-HDBW2531R-ZS-S2

Technical Specification

Camera					
Image Sensor		1/2.7" 5Megapixel progressive CMOS			
Max. Resolution		2592 (H) × 1944 (V)			
ROM		128 MB			
RAM		256 MB			
Scanning System		Progressive			
Electronic Shutter Speed		Auto/Manual 1/3 s-1/100000 s			
Min. Illumination		0.008 Lux @ F1.5			
S/N Ratio		>56 dB			
Illumination Distance		40 m (131.2 ft)			
Illuminator On/Off Control		Auto/Manual			
Illuminator Number		2 (IR LED)			
Pan/Tilt/Rotation Range		Pan: 0°–355° Tilt: 0°–75° Rotation: 0°–355°			
Lens					
Lens Type		Motorized vari-focal			
Mount Type		φ14			
Focal Length		2.7 mm–13.5 mm			
Max. Aperture		F1.5			
Field of View		Horizontal: 100°–26° Vertical: 72°–20° Diagonal: 133°–33°			
Iris Type		Fixed			
Close Focus Distance		0.8m–0.8m (2.62 ft–2.62 ft)			
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	W	64 m (209.97 ft)	25.6 m (83.99 ft)	12.8 m (41.99 ft)	6.4 m (21 ft)
	т	220 m (721.78 ft)	88 m (288.71 ft)	44 m (144.36 ft)	22 m (72.18 ft)
Smart Event					

Smart	Event
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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: 2592 × 1944 (1 fps-20 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	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(RoI)	Yes (4 areas)
Smart Illumination	Yes
Image Rotation	0°/90°/180°/270° (Supports 90°/270° with 2592 \times 1944 resolution and lower.)
Mirror	Yes
Privacy Masking	4 areas
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; safety exception
Network	detection; safety exception
Network Network	detection; safety exception RJ-45 (10/100 Base-T)
Network	RJ-45 (10/100 Base-T)
Network SDK and API	RJ-45 (10/100 Base-T) Yes 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
Network SDK and API Cyber Security	RJ-45 (10/100 Base-T) Yes 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 IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP ; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP;
Network SDK and API Cyber Security Protocol	RJ-45 (10/100 Base-T) Yes Video encryption; firmware encryption; configuration encryption; Digest; WSSE; account lockout; security logs; IP/MAC filtering; generation and importing of X.509 certification; syslog; HTTP5; 802.1x; trusted boot; trusted execution; trusted upgrade IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP ; RTSP; RTCP; RTMP; SMTP; FTP; STP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; PPPoE; Bonjour ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone;
Network SDK and API Cyber Security Protocol Interoperability	RJ-45 (10/100 Base-T) Yes Video encryption; firmware encryption; configuration encryption; Digest; WSSE; account lockout; security logs; IP/MAC filtering; generation and importing of X.509 certification; syslog; HTTP5; 802.1x; trusted boot; trusted execution; trusted upgrade IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP ; RTSP; RTCP; RTMP; SMTP, FTP; STP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NF5; PPPoE; Bonjour ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone; Genetec
Network SDK and API Cyber Security Protocol Interoperability User/Host	RJ-45 (10/100 Base-T) Yes 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 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 ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone; Genetec
Network SDK and API Cyber Security Protocol Interoperability User/Host Storage	RJ-45 (10/100 Base-T) Yes 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 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 ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone; Genetec 20 FTP; Micro SD card (support max. 256 G); NAS; SFTP IE Chrome
Network SDK and API Cyber Security Protocol Interoperability User/Host Storage Browser	RJ-45 (10/100 Base-T) Yes 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 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 ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone; Genetec 20 FTP; Micro SD card (support max. 256 G); NAS; SFTP IE Chrome Firefox

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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: UL60950-1 CAN/CSA C22.2 No.60950-1-07		
Power			
Power Supply	12V DC/PoE (802.3af)		
Power Consumption	< 7.9W		
Environment			
Operating Conditions	-30°C to +60°C (-22°F to +140°F)/less than \leq 95%		
Storage Temperature	-40°C to +60°C (-40°F to +140°F)		
Protection	IP67; IK10		
Structure			
Casing	Metal		
Dimensions	Φ122 mm × 88.9 mm (Φ4.80" × 3.50")		
Net Weight	0.47 kg (1.1 lb)		
Gross Weight	0.63 kg (1.4 lb)		

Ordering Information

Туре	Part Number	Description	
5MP Camera	DH-IPC-HDBW2531RP-ZS-S2	5MP Lite IR Vari-focal Dome Network Camera,PAL	
	DH-IPC-HDBW2531RN-ZS-S2	5MP Lite IR Vari-focal Dome Network Camera,NTSC	
	PFA137	Junction Box	
	PFB203W	Wall Mount	
	PFA152-E	Pole Mount	
	PFA200W	Rain Shade	
	PFA106	Mount Adapter	
Accessories	PFB220C	Celling Mount	
(optional)	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	

Accessories

Optional:







PFA200W Rain Shade



PFB200C

In-Celling Mount



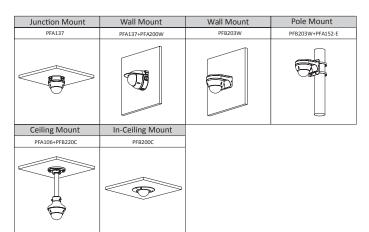


PFM321D DC12V1A Power Adapter

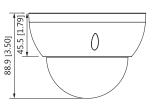


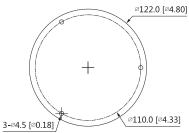
PFM900-E Integrated Mount Tester

PFM114 TLC SD Card



Dimensions (mm[inch])





PFA137 Junction Box

PFB203W Wall Mount





PFA106 Mount Adapter

PFB220C Celling Mount

PFA152-E

Pole Mount



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

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