DH-IPC-HDBW2831R-ZS-S2

8MP Lite IR Vari-focal Dome Network Camera

- 8MP, 1/2.7" CMOS image sensor, low illuminance, high image definition
- 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: 40 m
- ROI, SMART H.264/H.265, flexible coding, applicable to various bandwidth and storage environments
- Rotation mode, WDR, 3D DNR, 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
- 12V DC/PoE power support
- IP67, IK10 protection

System 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 to the standards of IP67 and IK10 (Supported by some select models).

Functions

Smart Codec

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

Dahua Starlight technology mainly applies to the environment of low illuminance, and it can provide clear colorful video. Even in the environment of ultra-low illuminance, the technology can guarantee the good image effect.

IVS

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

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 cm (Impact energy is 20J).
Wide voltage: The camera allows ±30% 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" 8Megapixel progressive CMOS
Effective Pixels	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	0.008 Lux@F1.5
IR Distance	40 m (131.2 ft)
IR On/Off Control	Auto/Manual
IR LEDs Number	2
Pan/Tilt/Rotation Range	Pan: 0°–355° Tilt: 0°–67° 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	Pan: 113°–31° Tilt: 58°–17° Diagonal: 138°–36°
Iris Type	Fixed
Close Focus Distance	0.8m–0.8m (2.62 ft–2.62 ft)

	Lens	Detect	Observe	Recognize	Identify
DORI Distance	W	85.3 m (279.9 ft)	34.1 m (111.9 ft)	17 m (55.8 ft)	8.5 m (27.9 ft)
	T	280 m (918.6 ft)	112 m (367.5 ft)	56 m (183.7 ft)	28 m (91.9 ft)

Smart Event

General IVS Analytics	Tripwire; intrusion

Video

Video Compression	H.265; H.264; H.264B; MJPEG
Smart Codec	Yes
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 DNR
Motion Detection	OFF/ON (4 areas, rectangular)
Region of Interest(RoI)	Yes (4 areas)
Smart IR	Yes
Image Rotation	0°/90°/180°/270° (Supports 90°/270° with 2688 × 1520 resolution and lower.)
Mirror	Yes
Privacy Masking	4 areas

Network

Network	RJ-45 (10/100 Base-T)
Protocol	IPv4; IPv6; HTTP; HTTPS; TCP; UDP; ARP; RTP ; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; PPPoE; 802.1x; Bonjour
Interoperability	ONVIF(Profile S/Profile G/Profile T); CGI; P2P; Milestone; Genetec
User/Host	20
Edge Storage	Dahua Cloud; 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: EN60950-1 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	< 7.4W

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 Grade	IP67; IK10

Structure

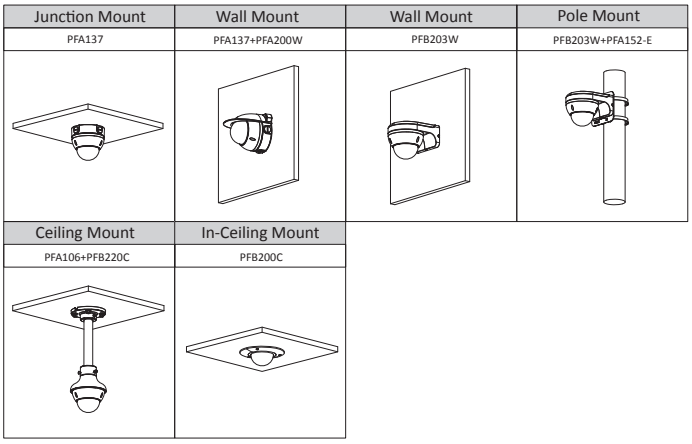
Casing	Metal
Dimensions	Φ122 mm × 88.9 mm (Φ4.80" × 3.50")
Net Weight	0.47 kg (1.1 lb)
Gross Weight	0.63 kg (1.4 lb)

PFM900-E
Integrated Mount Tester

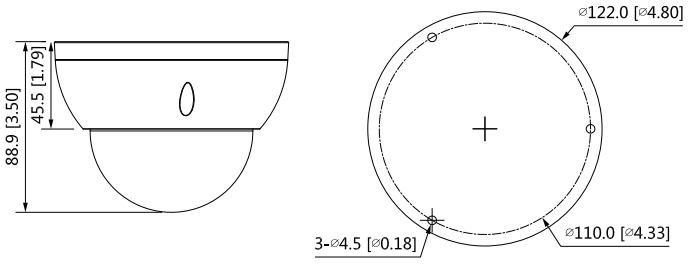
PFM114
TLC SD Card

Ordering Information

Type	Part Number	Description
8MP Camera	DH-IPC-HDBW2831RP-ZS-S2	8MP Lite IR Vari-focal Dome Network Camera,PAL
	DH-IPC-HDBW2831RN-ZS-S2	8MP Lite IR Vari-focal Dome Network Camera,NTSC
Accessories (optional)	PFA137	Junction Box
	PFB203W	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



Dimensions (mm[inch])



Accessories

Optional:

PFA137
Junction Box

PFB203W
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

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