# DH-IPC-HDBW2831E-S-S2

8MP Lite IR Fixed-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: 30 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 | 0.009 Lux@F2.0 |
| IR Distance | 30 m (98.43 ft) |
| IR On/Off Control | Auto/Manual |
| IR LEDs Number | 3 |
| Pan/Tilt/Rotation Range | Pan: 0°–355°<br>Tilt: 0°–65°<br>Rotation: 0°–355° |

### Lens

| | |
|---|---|
| Lens Type | Fixed-focal |
| Mount Type | M12 |
| Focal Length | 2.8 mm<br>3.6 mm |
| Max. Aperture | F2.0<br>F2.0 |
| Field of View | 2.8 mm: Pan 105° × Tilt 56° × Diagonal 125°<br>3.6 mm: Pan 87° × Tilt 47° × Diagonal 104° |
| Iris Type | Fixed |
| Close Focus Distance | 2.8 mm: 1.0 m (3.3 ft)<br>3.6 mm: 1.9 m (6.2 ft) |

| | Lens | Detect | Observe | Recognize | Identify |
|---|---|---|---|---|---|
| DORI Distance | 2.8mm | 74.7 m (245.1 ft) | 29.9 m (98.1 ft) | 14.9 m (48.9 ft) | 7.5 m (24.6 ft) |
| | 3.6mm | 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

| | |
|---|---|
| General IVS Analytics | Tripwire; intrusion |

### Video

| | |
|---|---|
| Video Compression | H.265; H.264; H.264B; MJPEG |
| Smart Codec | Yes |
| Video Frame Rate | Main stream:<br>3840 × 2160 (1 fps–15 fps)<br>2688 × 1520 (1 fps–25/30 fps)<br>Sub stream:<br>704 × 576 (1 fps–25 fps)<br>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<br>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<br>Chrome<br>Firefox |
| Management Software | Smart PSS; DSS; DMSS |
| Mobile Phone | IOS; Android |

### Certification

| | |
|---|---|
| Certifications | CE-LVD: EN60950-1<br>CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU<br>FCC: 47 CFR FCC Part 15, Subpart B<br>UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07 |

### Power

| | |
|---|---|
| Power Supply | 12V DC/PoE (802.3af) |
| Power Consumption | < 6.2W |

## Environment

| | |
|---|---|
| Power Consumption | –40°C to +60°C (–40°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 | 81 mm × Φ109.9 mm (3.19" × Φ4.33") |
| Net Weight | 0.350 kg (0.77 lb) |
| Gross Weight | 0.491 kg (1.08 lb) |

## Ordering Information

| Type | Part Number | Description |
|---|---|---|
| 8MP Camera | DH-IPC-HDBW2831EP-S-S2 | 8MP Lite IR Fixed-focal Dome Network Camera,PAL |
| | DH-IPC-HDBW2831EN-S-S2 | 8MP ILite IR Fixed-focal Dome Network Camera,NTSC |
| Accessories (optional) | PFA136 | Junction Box |
| | PFA200W | Rain Shade |
| | PFB203W | Wall Mount |
| | PFA152-E | Pole Mount |
| | PFA106 | Mount Adapter |
| | PFB220C | 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 |

PFM321D
DC12V1A Power Adapter

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Single-port Long Reach Ethernet over Coax Extender

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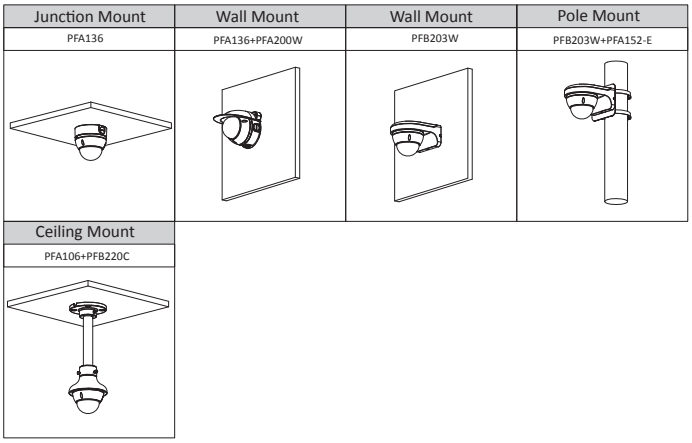
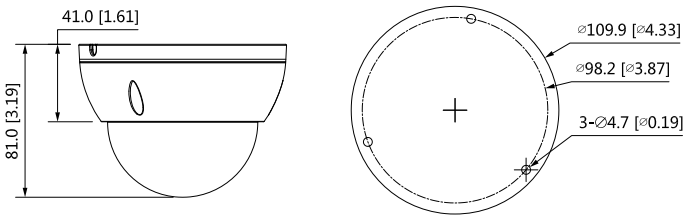
TLC SD Card




## Dimensions (mm[inch])




## Accessories

### Optional:

PFA136
Junction Box

PFA200W
Rain Shade

PFB203W
Wall Mount

PFA152-E
Pole Mount

PFA106
Mount Adapter



PFB220C
Celling Mount

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