

DH-IPC-HDW2831T-ZS-S2

8MP Lite IR Vari-focal Eyeball 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 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, wide voltage)

IP67: The camera passes a series of strict test on dust and soak. It has dust-proof function, and the enclosure can work normal after soaking in 1 m deep water for 30 minutes.

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 (131.23 ft) |
| IR On/Off Control | Auto/Manual |
| IR LEDs Number | 2 |
| Pan/Tilt/Rotation Range | Pan: 0°–360° Tilt: 0°–78° Rotation: 0°–360° |

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 | 0.8 m–0.8 m (2.62 ft–2.62 ft) | | | | |
| DORI Distance | Lens | Detect | Observe | Recognize | Identify |
| | 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

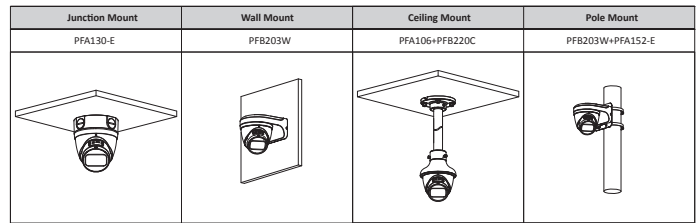
| | |
|-------------------|----------------------|
| Power Supply | 12V DC/PoE (802.3af) |
| Power Consumption | < 7.6W |

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 |

Structure

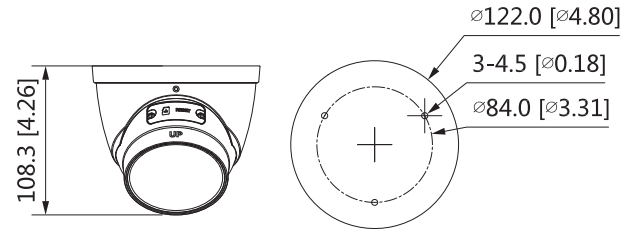
| | |
|--------------|-------------------------------------|
| Casing | Metal |
| Dimensions | 108.3 mm × Φ122 mm (4.26" × Φ1.80") |
| Net Weight | 0.69 kg (1.52 lb) |
| Gross Weight | 0.88 kg (1.94 lb) |



Ordering Information

| Type | Part Number | Description |
|------------------------|------------------------|---|
| 8MP Camera | DH-IPC-HDW2831TP-ZS-S2 | 8MP Lite IR Vari-focal Eyeball Network Camera, PAL |
| | DH-IPC-HDW2831TN-ZS-S2 | 8MP Lite IR Vari-focal Eyeball Network Camera, NTSC |
| Accessories (optional) | PFA130-E | Junction Box |
| | PFB203W | Wall Mount |
| | PFA106 | Mount Adapter |
| | PFB220C | Ceiling 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 | |

Dimensions (mm[inch])



Accessories

Optional:



PFA130-E
Junction Box



PFB203W
Wall Mount



PFA106
Mount Adapter



PFB220C
Ceiling 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