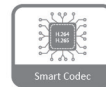


DH-IPC-HFW2231T-ZAS-S2

2MP Lite IR Vari-focal Bullet Network Camera



- 2MP 1/2.8" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 2MP (1920 × 1080) @25/30 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in IR LED, and the max. illumination distance is 60 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 monitoring: Intrusion, tripwire.
- Abnormality detection: Motion detection, privacy masking, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection.
- Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G micro SD card.
- 12V DC/PoE power supply.
- IP67, IK10 protection (optional).



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 work 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.

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 and IK10 (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.

Technical Specification

| | |
|----------------------------|---|
| Camera | |
| Image Sensor | 1/2.8" CMOS |
| Max. Resolution | 1920 (H) × 1080 (V) |
| ROM | 128 MB |
| RAM | 128 MB |
| Scanning System | Progressive |
| Electronic Shutter Speed | Auto/Manual 1/3 s–1/100,000 s |
| Min. Illumination | 0.002 Lux@F1.6 (Color, 30 IRE) 0.0002 Lux@F1.6 (B/W, 30 IRE) 0 Lux (Illuminator on) |
| S/N Ratio | > 56 dB |
| Illumination Distance | 60 m (196.85 ft) (IR) |
| Illuminator On/Off Control | Auto; manual |
| Illuminator Number | 4 (IR LED) |
| Pan/Tilt/Rotation Range | Pan: 0°–360° Tilt: 0°–90° Rotation: 0°–360° |

| | | | | | |
|----------------------|---|------------------------|-----------------------|----------------------|----------------------|
| Lens | | | | | |
| Lens Type | Motorized vari-focal | | | | |
| Lens Mount | φ14 | | | | |
| Focal Length | 2.7mm–13.5mm | | | | |
| Max. Aperture | F1.5 | | | | |
| Field of View | Horizontal: 108°–30° Vertical: 56°–17° Diagonal: 131°–35° | | | | |
| Iris Control | Fixed | | | | |
| Close Focus Distance | 0.8 m (2.62 ft) | | | | |
| DORI Distance | Lens | Detect | Observe | Recognize | Identify |
| | W | 44.1 m (144.69 ft) | 17.7 m (58.07 ft) | 8.8 m (28.87 ft) | 4.4 m (14.44 ft) |
| | T | 144.8 m (475.07 ft) | 57.9 m (189.96 ft) | 29.0 m (95.14 ft) | 14.5 m (47.57 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: 1920 × 1080@1–25/30 fps Sub stream: 704 × 576@1–25 fps 704 × 480@1–30 fps *The values above are the max. frame rates of each stream; for multiple streams, the values will be subjected to the total encoding capacity. |

| | |
|--------------------------|---|
| Stream Capability | 2 streams |
| Resolution | 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–6144 kbps H.265: 12 kbps–6144 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° (Support 90°/270° with 1080p resolution and lower) |
| Mirror | Yes |
| Privacy Masking | 4 areas |

| | |
|-------------------|-----------------------------|
| Audio | |
| Audio Compression | G.711a; G.711Mu; G.726; PCM |

| | |
|--------------|--|
| Alarm | |
| Alarm Event | No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; defocus detection; tripwire; intrusion; audio abnormality; voltage detection; external alarm; security exception |

| | |
|---------------------|---|
| Network | |
| Network Port | 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 |
| Network 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 |
| User/Host | 20 (Total bandwidth: 48 M) |
| Storage | FTP; SFTP; Micro SD card (support max. 256 G); NAS |
| Browser | IE Chrome Firefox |
| Management Software | Smart PSS; DSS; DMSS |
| Mobile Client | iOS; Android |

Certification

| | |
|----------------|---|
| Certifications | CE-LVD: EN 62368-1 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 |
|----------------|---|

Port

| | |
|--------------|----------------------------|
| Audio Input | 1 channel (RCA port) |
| Audio Output | 1 channel (RCA port) |
| Alarm Input | 1 channel In: 5mA 5VDC |
| Alarm Output | 1 channel Out: 300mA 12VDC |

Power

| | |
|-------------------|---|
| Power Supply | 12 V DC/PoE |
| Power Consumption | Basic: 1.8 W (12 V DC); 2.2 W (PoE) Max. (ICR + H.265 + max. resolution + main stream + IR intensity + WDR + IVS + vari-focal); 8.2 W (12 V DC); 9.8 W (PoE) |

Environment

| | |
|-----------------------|--------------------------------------|
| Operating Temperature | -30 °C to +60 °C (-22 °F to +140 °F) |
| Operating Humidity | ≤ 95% |
| Storage Temperature | -40 °C to +60 °C (-40 °F to +140 °F) |
| Protection | IP67; IK10 (optional) |

Structure

| | |
|--------------------|----------------------------------|
| Casing | Metal |
| Product Dimensions | 244.1 mm × Φ90.4 mm (9.6"×Φ3.6") |
| Net Weight | 0.89 kg (2.0 lb) |
| Gross Weight | 1.13 kg (2.5 lb) |

Ordering Information

| Type | Model | Description |
|------------------------|------------------------|--|
| 2MP Camera | DH-IPC-HFW2231T-ZAS-S2 | 2MP Lite IR Vari-focal Bullet Network Camera |
| Accessories (optional) | PFA130-E | Junction Box |
| | PFA152-E | Pole Mount Bracket |
| | PFM321D | 12V DC 1A Power Adapter |
| | PFM900-E | Integrated Mount Tester |

Accessories

Optional:



PFA130-E Junction Box



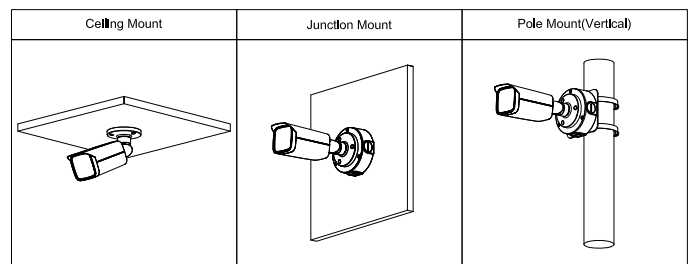
PFA152-E Pole Mount Bracket



PFM321D 12V DC 1A Power Adapter



PFM900-E Integrated Mount Tester



Dimensions (mm[inch])

