# DH-IPC-HFW2431T-AS-S2

## 4MP Lite IR Fixed-focal Bullet Network Camera

· 4MP, 1/3" CMOS image sensor, low illuminance, high image definition
· Outputs max. 4MP (2688 × 1520) @20 fps, and supports 2560×1440 (2560 × 1440) @25/30 fps
· H.265 codec, high compression rate, ultra-low bit rate
· Built-in IR LED, max IR distance: 80 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 disconnection, IP conflict, illegal ac- cess, local alarm, voltage detection,audio detection
· Alarm: 1 in, 1 out; audio: 1 in, 1 out（optional）; supports max. 256 GB Micro SD card
· 12V DC/POE power support supply
· IP67 protection, IK10 protection (optional)

| 4Mp | Smart Codec | WDR | Starlight | IVS | IP67 |
|-----|-------------|-----|-----------|-----|------|

### 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 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.

## 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 to 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

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.

## Technical Specification

### Camera

| | |
|---|---|
| Image Sensor | 1/3" 4Megapixel progressive CMOS |
| Max. Resolution | 2688 (H) × 1520 (V) |
| ROM | 128 MB |
| RAM | 128 MB |
| Scanning System | Progressive |
| Electronic Shutter Speed | Auto/Manual 1/3 s–1/100,000 s |
| Min. Illumination | 0.008 Lux@F1.6 |
| S/N Ratio | > 56 dB |
| Illumination Distance | 80 m (262.5 ft) |
| Illuminator On/Off Control | Auto/Manual |
| Illuminator Number | 4 (IR LED) |
| Pan/Tilt/Rotation Range | Pan: 0°–360°<br>Tilt: 0°–90°<br>Rotation: 0°–360° |

### Lens

| | |
|---|---|
| Lens Type | Fixed-focal |
| Mount Type | M12 |
| Focal Length | 3.6 mm; 6 mm; 8 mm |
| Max. Aperture | 3.6 mm: F1.6<br>6 mm: F1.6<br>8 mm: F1.6 |
| Field of View | 3.6 mm: Horizontal 84° × Vertical 45° × Diagonal 100°<br>6 mm: Horizontal 52° × Vertical 28° × Diagonal 61°<br>8 mm: Horizontal 40° × Vertical 23° × Diagonal 45° |
| Iris Type | Fixed |
| Close Focus Distance | 3.6 mm: 1.4 m (4.6 ft)<br>6 mm: 3.1 m (10.2 ft)<br>8 mm:4.9 m(16.1 ft) |

| DORI Distance | Lens | Detect | Observe | Recognize | Identify |
|---|---|---|---|---|---|
| | 3.6 mm | 80 m (262.5 ft) | 32.0 m (105.0 ft) | 16.0 m (52.5 ft) | 8.0 m (26.2 ft) |
| | 6 mm | 120.0 m (393.7 ft) | 48.0 m (157.5 ft) | 24.0 m (78.7 ft) | 12.0 m (39.4 ft) |
| | 8 mm | 160.0 m (524.9 ft) | 64.0 m (210.0 ft) | 32.0 m (105.0 ft) | 16.0m (52.5 ft) |

### Smart Event

| | |
|---|---|
| IVS | Tripwire; intrusion |

### Video

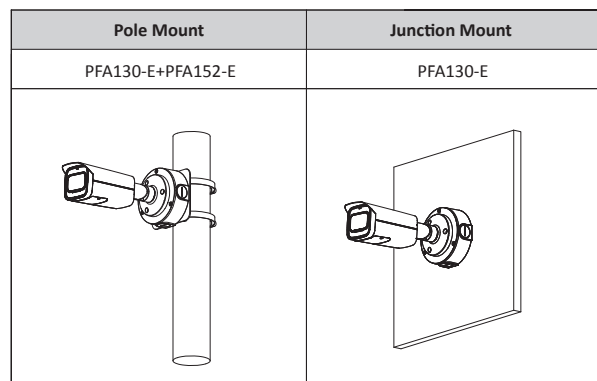| | |
|---|---|
| Video Compression | H.265; H.264; H.264B; MJPEG(only supported by the sub stream) |
| Smart Codec | Smart H.265+/ Smart H.264+ |
| Video Frame Rate | Main stream:<br>2688 × 1520 (1 fps–20 fps)<br>2560 × 1440 (1 fps–25/30 fps)<br>Sub stream:<br>704 × 576 (1 fps–25 fps)<br>704 × 480 (1 fps–30 fps) |
| Stream Capability | 2 streams |

| | |
|---|---|
| Resolution | 2688 × 1520 (2688 × 1520); 2560 × 1440 (2560 × 1440); 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–6144 kbps<br>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° (Supports 90°/270° with 2688 × 1520 resolution and lower) |
| Mirror | Yes |
| Privacy Masking | 4 areas |

### Audio

| | |
|---|---|
| Audio Compression | N/A |

### Alarm

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

### Network

| | |
|---|---|
| Network | 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 |
| 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; Milestone; Genetec; P2P |
| User/Host | 20 |
| Storage | 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: EN62368-1<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 |
|---|---|

## Port

| Audio Input | 1 channel (RCA port) |
|---|---|
| Audio Output | 1 channel (RCA port) |
| Alarm Input | 1 channel in: 5mA 3V–5V DC |
| Alarm Output | 1 channel out: 300mA 12V DC |

## Power

| Power Supply | 12V DC/PoE (802.3af) |
|---|---|
| Power Consumption | < 7.7W |

## Environment

| Operating Conditions | −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(optional) |

## Structure

| Casing | Metal |
|---|---|
| Dimensions | 244.1 mm × Φ90.4 mm (9.61" × Φ3.26") |
| Net Weight | 0.91 kg (2.0 lb) |
| Gross Weight | 1.16 kg (2.6 lb) |

## Ordering Information

| Type | Part Number | Description |
|---|---|---|
| 4MP Camera | DH-IPC-HFW2431TP-AS-S2 | 4MP Lite IR Fixed-focal Bullet Nework Camera,PAL |
| | DH-IPC-HFW2431TN-AS-S2 | 4MP Lite IR Fixed-focal Bullet Nework Camera,NTSC |
| Accessories (optional) | PFA130-E | Junction Box |
| | PFA152-E | Pole Mount |
| | PFM321D | 12V DC 1A Power Adapter |
| | LR1002-1ET/1EC | Single-port Long Reach Ethernet over Coax Extender |
| | PFM900-E | Integrated Mount Tester |
| | PFM114 | TLC SD card |

## Accessories

### Optional:



PFA130-E
Junction Box

PFA152-E
Pole Mount

PFM321D
12V DC 1A Power Adapter

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

PFM900-E
Integrated Mount Tester

PFM114
TLC SD Card

| Pole Mount | Junction Mount |
|---|---|
| PFA130-E+PFA152-E | PFA130-E |



## Dimensions (mm[inch])



244.1 [9.61]
153.1 [6.03]
133.5 [5.26]
90.4 [3.56]
79.0 [3.11]
2.99
75.9 [3.56]
90.4 [3.56]

∅90.4 [∅3.56]
∅70.0 [∅2.76]
3-∅4.7 [∅0.19]