

DH-IPC-HFW2431DG-4G-SP-EAU-B

4MP IR Fixed-focal Bullet 4G Solar Power Network Camera



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

Functions

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.

4G

With a built-in high-performance 4G mobile network module, the camera can be directly registered to cloud platforms after a 4G SIM card has been inserted into it. It can be installed anywhere without the hassle of network cables. Users can perform real-time monitoring and remote control of the camera from a mobile client through 4G network.

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.

- 4-MP 1/3" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 4 MP (2688 × 1520) @25/30 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in warm light/IR LED.
- Sound and light alarm linkage. When the alarm is triggered, the sound and light will be linked.
- Built in high-performance 4G Module that suits all mobile networks. Installation is no longer limited to wired networks. Please test the local 4G network with the camera before use.
- Built-in PIR sensor that detects human body through passive infrared which is sensitive to body temperature.
- Built-in 8 GB eMMC memory chip that protects key records from being lost.
- Supports solar power, making it ideal for use in locations that have exposure to sunlight.
- Standalone with built-in solar panel and battery, battery cycle life can last up to 10 days at the rate of 1-hour remote live view per day.
- Abnormality detection: Motion detection, video tampering, audio detection, SD card full, SD card error, network disconnection, IP conflict and illegal access.
- Supports max. 256 G Micro SD card; built in MIC and speaker; support two-way talk.
- IP67 protection.



Protection (IP67)

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.

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.

Technical Specification

Camera

| | |
|----------------------------|---|
| Image Sensor | 1/3" CMOS |
| Max. Resolution | 2688 (H) × 1520 (V) |
| ROM | 128MB |
| RAM | 256MB |
| Scanning System | Progressive |
| Electronic Shutter Speed | Auto/Manual 1/3 s–1/100,000 s |
| Min. Illumination | 0.01 Lux@F1.6 (Color,30IRE) 0.001 Lux@F1.6 (B/W,30IRE) 0 lux (Illuminator on) |
| S/N Ratio | >56 dB |
| Illumination Distance | IR: 50 m (164.04 ft) Warm light: 30 m (98.43 ft) |
| Illuminator On/Off Control | Auto;Manual |
| Illuminator Number | 1 (IR LED); 1 (Warm light) |
| Angle Adjustment | Pan: 0°–360° Tilt: –60°–0° Rotation: 0°–360° |
| Built-in Battery | Support 10000 mAh rechargeable lithium battery |
| PIR Sensor Distance | 10 m (the height of device is 2.5 m, placed horizontally) 5 m (the height of the device is 2 m, placed at an angle of 30° from the horizontal) |

Battery

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| Battery Type | Lithium-ion |
| Capacity | 10 Ah |
| Max. Charging Voltage | 4.2 V |
| Operating Temperature | 0 °C to +50 °C (+32 °F to +122 °F) |
| Battery Voltage | 3.0 V to 4.2 V |
| Cycle Lifetime | Sleep Mode(Recommend): About 10 days (at the rate of 1-hour remote live view per day) General Mode: About 15 hours(when the battery is fully charged) |
| Battery Life | More than 500 cycles |
| Battery Weight | Approx. 190 g (0.42 lb) |

Solar Module

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| Maximum Power | 5 W |
| Cell type | Monocrystalline |
| Operating Temperature | –40 °C to +60 °C (–40 °F to +140 °F) |
| Dimensions | 230 mm × 150 mm × 2 mm (9.1" × 5.9" × 0.1") (L × W × H) |
| Standard testing condition | AM = 1.5, 25 °C (77 °F), 1000 W/m ² , SMQ + 12% |

Lens

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| Lens Type | Fixed-focal |
| Lens Mount | M12 |
| Focal Length | 2.8 mm; 3.6 mm; 6 mm |

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|----------------------|--|---------------------|--------------------|-------------------|------------------|
| Max. Aperture | 2.8 mm: F1.6 3.6 mm: F1.6 6 mm: F1.6 | | | | |
| Field of View | 2.8 mm: H: 102°; V: 54°; D:121° 3.6 mm: H: 84°; V: 42°; D:101° 6 mm: H: 52°; V: 48°; D:61° | | | | |
| Iris Control | Fixed | | | | |
| Close Focus Distance | 2.8 mm: 0.9 m (2.95 ft) 3.6 mm: 1.7 m (5.58 ft) 6 mm: 3.2 m (10.50 ft) | | | | |
| DORI Distance | Lens | Detect | Observe | Recognize | Identify |
| | 2.8 mm | 63.6 m (208.66 ft) | 25.4 m (83.33 ft) | 12.7 m (41.67 ft) | 6.4 m (21.00 ft) |
| | 3.6 mm | 85.4 m (280.18 ft) | 34.2 m (112.20 ft) | 17.1 m (56.10 ft) | 8.5 m (27.89 ft) |
| | 6 mm | 124.0 m (406.82 ft) | 49.6m (162.73 ft) | 24.8m (81.36 ft) | 12.4m (40.68 ft) |

Video

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| Video Compression | H.265; H.264; H.264H; H.264B; MJPEG (Only supported by the sub stream) |
| Video Frame Rate | Main stream: 2688 × 1520 @ (1–25/30 fps) sub stream: 704 × 576 @ (1–25 fps)/704 × 480 @ (1–30 fps) |
| Stream Capability | 2 streams |
| Resolution | 4M (2688 × 1520); 4M (2560 × 1440); 3M (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: 32 kbps–8192 kbps |
| Day/Night | Auto(ICR)/Color/B/W |
| BLC | Yes |
| HLC | Yes |
| WDR | 120 dB |
| Scene Self-adaptation (SSA) | Yes |
| White Balance | Auto; natural; street lamp; outdoor; manual; regional custom |
| Gain Control | Auto |
| Noise Reduction | 3D NR |
| Motion Detection | OFF/ON (4 areas, rectangular) |
| Region of Interest (RoI) | Yes (4 areas) |
| Smart Illumination | Yes |
| Mirror | Yes |
| Privacy Masking | 4 areas |
| Audio | |
| Built-in MIC | Yes |

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|-------------------|----------------------------|
| Built-in Speaker | Yes |
| Audio Compression | G.711a;G.711Mu; G.726; PCM |

Alarm

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| Alarm Event | SD card error; SD card full; IP conflict; illegal access; motion detection; video tampering; audio detection; security exception; PIR alarm; low battery alarm; light alarm; sound alarm |
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Network

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| Network Port | RJ-45 (10/100 Base-T) |
| Frequency | 4G: FDD-LTE: B1/3/5/7/8/20/28 TDD-LTE: B38/40/41 Applicable regions: Europe, Asia-Pacific, Africa 3G: WCDMA: B1/5/8 Applicable regions: Europe, Asia-Pacific, Africa 2G: GSM/GPRS/EDGE: B3/5/8 Applicable regions: Europe, Asia-Pacific, Africa |
| 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; SAMBA; PPPoE; SNMP; P2P |
| Interoperability | ONVIF (Profile S/Profile G); CGI |
| User/Host | 20 (Total bandwidth: 80 M) |
| Storage | Built in eMMC (8 GB); FTP;SFTP; Micro SD card (support max. 256 GB); NAS |
| Browser | IE: IE8,9,11 Chrome Firefox |
| Management Software | DSS; DMSS |
| Mobile Client | iOS; Android |

Certification

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| Certifications | CE-LVD: EN62368-1; CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU; CE-RED: Radio Equipment Directive 2014/53/EU; FCC: 47 CFR FCC Part 15; Subpart B |
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Port

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| USB | 1 Micro USB Port |
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Power

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| Power Supply | MicroUSB/5 VDC |
| Power Consumption | Sleep Mode: 0.03 W General Mode: 2.6 W Max. (4G pulling stream+IR+speaker+warning light): 4.9 W |

Environment

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|-----------------------|------------------------------------|
| Operating Temperature | 0 °C to +50 °C (+32 °F to +122 °F) |
| Operating Humidity | ≤ 95% |

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|---------------------|------------------------------------|
| Storage Temperature | 0 °C to +50 °C (+32 °F to +122 °F) |
| Protection | IP67 |

Structure

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|----------------------|---|
| Casing | Metal + plastic |
| Product Dimensions | 247 mm × 219 mm×179 mm (9.72" × 8.62" × 7.05") (L × W × H) |
| Packaging Dimensions | 238 mm×181 mm×296 mm (9.37"×7.13"×11.65") (L × W × H) |
| Net Weight | 1250 g (2.80 lb) |
| Gross Weight | 1610 g (3.50 lb) |

Ordering Information

| Type | Model | Description |
|-------------|--|---|
| 4MP Camera | DH-IPC-HFW2431DGP-4G-SP-NL668EAU-B-0280B | 4MP IR Fixed-focal Bullet 4G Solar Power Network Camera |
| | DH-IPC-HFW2431DGP-4G-SP-NL668EAU-B-0360B | 4MP IR Fixed-focal Bullet 4G Solar Power Network Camera |
| | DH-IPC-HFW2431DGP-4G-SP-NL668EAU-B-0600B | 4MP IR Fixed-focal Bullet 4G Solar Power Network Camera |
| Accessories | PFB121W | Wall Mount Bracket |
| | PFA162 | Universal Joint |
| | PFA150 | Pole Mount Bracket |
| | PFA121 | Water-proof Junction Box |
| | PFA152-E | Pole Mount Bracket |
| | PFM900-E | Integrated Mount Tester |
| | TF-P100 | MicroSD Memory Card |

Accessories

Included:



PFB121W
Wall Mount
Bracket

Optional:



PFA162
Universal
Joint



PFA150
Pole Mount
Bracket



PFA121
Water-proof
Junction Box



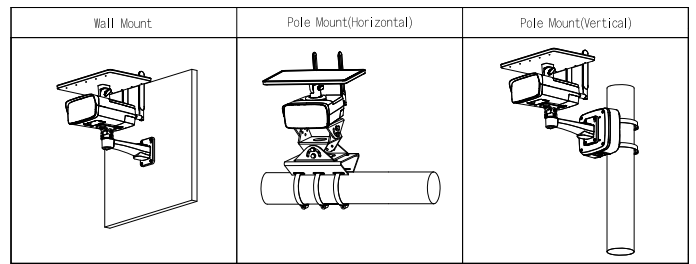
PFA152-E
Pole Mount
Bracket



PFM900-E
Integrated
Mount Tester



TF-P100
MicroSD
Memory Card



Dimensions (mm[inch])

