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.
- 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)
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

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	General Mode: 1 day Sleep Mode:10 days (at the rate of 1-hour remote live view per day)
Battery Life	More than 500 cycles
Battery Weight	Approx. 190 g (0.42 lb)

Solar Module

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/m², SMQ + 12%

Lens

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

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

Alarm

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

Network

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
Interoperability	ONVIF (Profile S/Profile G); CGI; P2P
User/Host	20 (Total bandwidth: 80 M)
Storage	Bulit 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

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

Port

USB	1 Micro USB Port

Power

Power Supply	MicroUSB/5 VDC
Power Consumption	Sleep Mode: 0.03 W General Mode: 2.1 W Max. (4G pulling stream+IR+speaker+warning light): 4 W

Environment

Operating Temperature	0 °C to +50 °C (+32 °F to +122 °F)
Operating Humidity	≤ 95%
Storage Temperature	0 °C to +50 °C (+32 °F to +122 °F)
Protection	IP67

Structure

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

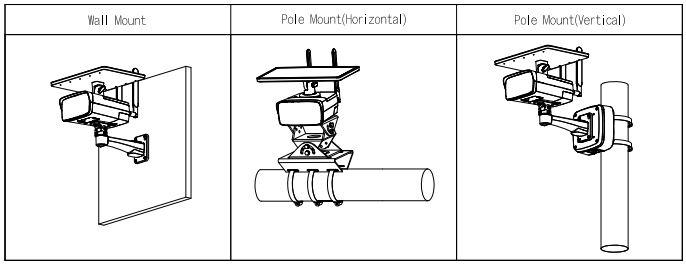
PFA150
Pole Mount
Bracket

PFA121
Water-proof
Junction Box

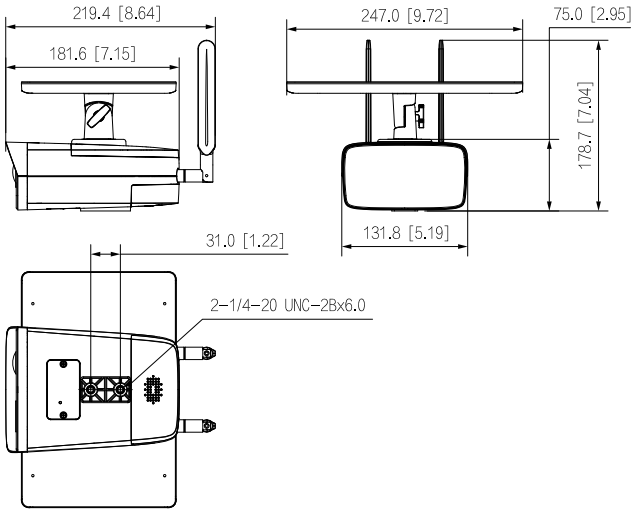
PFA152-E
Pole Mount
Bracket

PFM900-E
Integrated
Mount Tester

TF-P100
MicroSD
Memory Card



Dimensions (mm[inch])



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