DH-IPC-HFW2441DG-4G-SP-B

4MP Smart Dual Light Fixed-focal Bullet 4G Solar Power Network Camera



Series Overview

Driven by industry-leading technology, Dahua Wireless Series network cameras are highly precise and easy to install, producing high-quality images. They have strong wireless connection capabilities and do not require network cables, eliminating the need for a professional construction team. This series of cost-effective cameras supports local storage and is dustproof and waterproof. It is ideal for small and medium-sized scenes such as retail stores, homes, and other small and medium-sized enterprises.

Functions

AOV (Always-On Video) Mode

AOV (Always-On Video) technology offers a low power consumption solution that enables 24/7 video recording. Equipped with advanced AI algorithms, the camera can be woken up to perform detection even at long distances. During inactive periods, it records at a low frame rate and seamlessly escalates to a high frame rate when an event is detected, ensuring smooth and continuous video recordings.

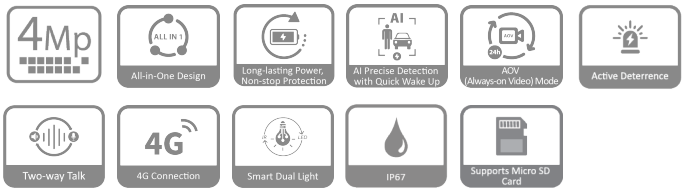
Siren and Light Active Deterrence

Dahua siren and light active deterrence network camera supports the light alarm and voice alarm when perimeter event occurs, to realize the deterrence and effective intervention. The camera is built in multiple voices for selection, and supports customized voice importing.

Two-way Talk

With its built-in high-sensitivity microphone and high-power speaker, the camera realizes two-way talk through the mobile app.

- 4-MP 1/3" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 4 MP (2560 × 1440) @15 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in warm light and IR LED, the max. IR distance is 30 m and the max. warm light distance is 20 m.
- 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.
- In AOV mode, the camera wakes up when a person or vehicle appears, providing 24/7 surveillance while maintaining ultra-low power consumption.
- Supports max. 512 G Micro SD card; built-in Mic and speaker; supports two-way talk.
- The solar panel offers both integrated and detachable designs, and supports multi-dimensional angle adjustment.
- It features a built-in 64Wh high-capacity lithium iron phosphate battery with stable performance.
- It supports both 12 VDC and Type-C power supply options, used respectively for connecting an external solar panel and for temporary charging with a power bank.
- IP67 protection.
- SMD.



Smart Dual Light

Dahua Smart Dual Light technology adopts smart algorithm to detect targets. Usually, the IR illuminator is on at night; when the target appears in the monitoring area, the white light is on, and the camera records the full-color video and information of key events. That is, the camera links snapshot and video with full-color image. When the target is out of the monitoring area, the white light is off and the IR illuminator is on, which reduces light pollution efficiently.

Technical Specification

Camera

Image Sensor	1/3" CMOS
Max. Resolution	2560 (H) × 1440 (V)
ROM	128 MB
RAM	128 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.01 lux@F1.6 (Color, 30 IRE) 0.001 lux@F1.6 (B/W, 30 IRE) 0 lux (Illuminator on)
S/N Ratio	>40 dB
Illumination Distance	3.6 mm: Up to 30 m (98.43 ft) (IR) Up to 20 m (65.62 ft) (Warm light)
Illuminator On/Off Control	Auto;Manual
Illuminator Number	1 (IR LED); 1 (Warm light)
Angle Adjustment	Pan: 0° to 360° Tilt: –60 °to 0° Rotation: 0° to 360°

Lens

Lens Type	Fixed-focal
Lens Mount	M12
Focal Length	3.6 mm
Max. Aperture	F1.6
Field of View	3.6 mm: H: 78.4°; V: 42.4°; D: 92.4°
Iris Control	Fixed
Close Focus Distance	3.6 mm: 1.5 m (4.92 ft)

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	3.6 mm	78.0 m (255.91 ft)	31.2 m (102.36 ft)	15.6 m (51.18 ft)	7.8 m (25.59 ft)

*DORI (Detect, Observe, Recognize, Identify) is a standard system (EN-62676-4) for defining the ability of a person viewing the video to distinguish persons or objects within a covered area. The numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and commissioning manual/project design tool.

Intelligence

Intelligence Notes	SMD

Video

Video Compression	H.265
Video Frame Rate	Main stream: 2560 × 1440@(1–15 fps) sub stream: 640 × 360@(1–15 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.
Streaming Capability	2 streams
Resolution	4M (2560 × 1440); 3M (2048 × 1536); 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)
Video Bit Rate	H.265: 32 kbps–4096 kbps
Day/Night	Auto(ICR)/Color/B/W
BLC	Yes
HLC	Yes
WDR	DWDR
White Balance	Auto
Gain Control	Auto
Noise Reduction	3D NR
Motion Detection	OFF/ON (4 areas, rectangular)
Smart Dual Light	Yes
Privacy Masking	4 areas

Audio

Built-in MIC	Yes, built-in Mic
Built-in Speaker	Yes, built-in speaker
Audio Compression	G.711a

Alarm

Alarm Event	SD card error; SD card full; motion detection; PIR alarm; low battery alarm

Network

Network Port	RJ-45 (10/100 Base-T)
Carrier Network System	(-EAU/EUR): FDD-LTE: B1/B3/B5/B7/B8/B20/B28; Applicable regions: Europe, Middle East, Africa Power class 3: 23dBm ±2.7dB (-LA): FDD-LTE: B2/B3/B4/B5/B7/B8/B28/B66; Applicable regions: Latn America Power class 3: 23dBm ±2.7dB
Interoperability	P2P
Storage	Micro SD card (support max. 512 GB)
Management Software	DMSS; DSS Pro
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

Port

USB	1 Type-C Port

Power

Power Supply	12 VDC

Power Consumption	Ultra power saving mode: 0.036 W; Power saving mode: 0.047 W; AOV mode: 0.26 W; Performance mode: 1.33 W

Environment

Operating Temperature	–20 °C to +60 °C (–4 °F to +140 °F)
Operating Humidity	≤95% (RH), non-condensing
Storage Temperature	–20 °C to +60 °C (–4 °F to +140 °F)
Storage Humidity	≤95% (RH), non-condensing
Protection	IP67

Structure

Casing Material	Plastic
Product Dimensions	256 mm × 290 mm × 197 mm (10.08" × 11.42" × 7.76") (L × W × H)
Net Weight	1357 g (2.99 lb)
Gross Weight	2869 g (6.33 lb)

Battery

Operating Temperature	Charging: 0 °C to +50 °C (32 °F to +122 °F) Discharging: –20 °C to +60 °C (–4 °F to +140 °F)
Net Weight	550 g (1.21 lb)
Battery Type	Lithium iron phosphate
Battery Capacity	64Wh
Battery Voltage	6.4 V
Cycle Lifetime	Ultra power saving mode (no-trigger recording): 76 days Power saving mode (30 daily alarms of under 15s each): 56days AOV mode (30 daily alarms of under 15s each): 10 days Performance mode (continuous recording): 2 days
Battery Life	More than 1,000 cycles

Solar Module

Operating Temperature	–40 °C to +60 °C (–40 °F to +140 °F)
Product Dimensions	285 mm × 235 mm × 2.5 mm (11.22" × 9.25" × 0.1") (L × W × H)
Max. Power	10.5 W
Cell Type	Monocrystalline silicon

Ordering Information

Type	Model	Description
IP CAMERA	DH-IPC-HFW2441DG-4G-SP-B	4MP Smart Dual Light Fixed-focal Bullet 4G Solar Power Network Camera
Accessories (Optional)	DH-PFA162	Universal Joint
	DH-PFA150	Pole Mount Bracket
	G3416GW	G3/4" Water Joint
	DH-PFA121	Water-proof Junction Box
	DH-PFA152-E	Pole Mount Bracket
	DH-PFM320D-EN	DC12V2A power adapter
	PFM900-E	Integrated Mount Tester
	DHI-TF-C100/512GB	MicroSD Card
	DHI-TF-P100/512GB	MicroSD Card

Accessories

Optional:



DH-PFA121
Water-proof Junction Box



DH-PFA150
Pole Mount Bracket



DH-PFA152-E
Pole Mount Bracket



DH-PFA162
Universal Joint



DH-PFM320D-EN
DC12V2A power adapter



DHI-TF-C100/512GB
MicroSD Card



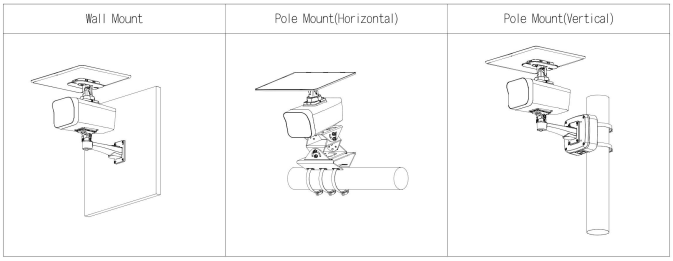
DHI-TF-P100/512GB
MicroSD Card



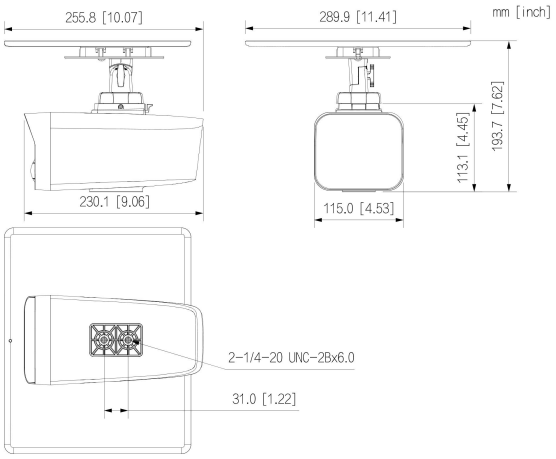
G3416GW
G3/4" Water Joint



PFM900-E
Integrated Mount Tester



Dimensions (mm[inch])



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