

# 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)<br>0.001 lux@F1.6 (B/W, 30 IRE)<br>0 lux (Illuminator on) |
| S/N Ratio                  | >40 dB  |
| Illumination Distance      | 3.6 mm: Up to 30 m (98.43 ft) (IR)<br>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°<br>Tilt: –60° to 0°<br>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)              |

|               | Lens  | Detect                    | Observe                   | Recognize                | Identify                |
|---------------|---|---------------------------|---------------------------|--------------------------|-------------------------|
| DORI Distance | 3.6 mm  | 78.0 m<br>( 255.91<br>ft) | 31.2 m<br>( 102.36<br>ft) | 15.6 m<br>( 51.18<br>ft) | 7.8 m<br>( 25.59<br>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)<br>sub stream: 640 × 360@(1–15 fps)<br>*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 | FDD-LTE: B1/B3/B5/B7/B8/B20/B28;<br>Applicable regions: Europe, Middle East, Africa<br>Power class 3: 23dBm ±2.7dB<br>FDD-LTE: B2/B3/B4/B5/B7/B8/B28/B66;<br>Applicable regions: Latin America<br>Power class 3: 23dBm ±2.7dB |
| SDK and API            | Yes   |
| 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;<br>CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU;<br>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;<br>Power saving mode: 0.047 W;<br>AOV mode: 0.26 W;<br>Performance mode: 1.33 W  |
| <b>Environment</b>    |  |
| 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   |
| <b>Structure</b>      |  |
| Casing Material       | Plastic  |
| Product Dimensions    | 256 mm × 290 mm × 197 mm (10.08" × 11.42" × 7.76")<br>(L × W × H)  |
| Net Weight            | 1357 g (2.99 lb)   |
| Gross Weight          | 2869 g (6.33 lb)   |
| <b>Battery</b>        |  |
| Operating Temperature | Charging: 0 °C to +50 °C (32 °F to +122 °F)<br>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<br>Power saving mode (30 daily alarms of under 15s each): 56days<br>AOV mode (30 daily alarms of under 15s each): 10 days<br>Performance mode (continuous recording): 2 days |
| Battery Life          | More than 1,000 cycles   |
| <b>Solar Module</b>   |  |
| 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  |

| Type | Model             | Description             |
|------|-------------------|-------------------------|
|      | DH-PFM320D-EN     | DC12V2A power adapter   |
|      | PFM900-E          | Integrated Mount Tester |
|      | 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



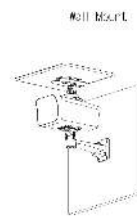
DHI-TF-P100/512GB  
MicroSD Card



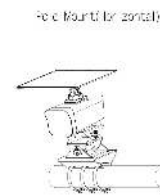
G3416GW  
G3/4" Water Joint



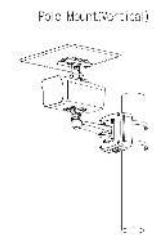
PFM900-E  
Integrated Mount Tester



Well Mount



Pole Mount (horizontal)



Pole Mount (vertical)

## 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  |
|                        | DH-PFA152-E              | Pole Mount Bracket  |
|                        | G3416GW                  | G3/4" Water Joint   |
|                        | DH-PFA121                | Water-proof Junction Box  |

Dimensions (mm[inch])

