



Pro Series | DH-HAC-HFW2249T-I8-A-LED

# DH-HAC-HFW2249T-I8-A-LED

2MP Full-color Starlight HDCVI Bullet Camera



- Full-color starlight
- 120dB true WDR, 3DNR
- 40m(131ft) LED distance
- Max. 30fps@1080P
- HD/SD output switchable
- Audio in interface, built-in mic
- 3.6mm fixed lens (6mm optional)
- IP67, DC12V±30%



## System Overview

Experience 1080P full HD color video and the simplicity of reusing existing coaxial infrastructure with HDCVI. The full-color starlight HDCVI camera presents a high quality color image with rich details even in total darkness conditions. It offers various fixed lens models with a multi-language OSD and HD/SD switchable output. It adopts two powerful warm white LED illuminators, covering an effective range up to 40m(131ft). The LEDs switch on automatically in darkness to capture detail-packed full-color images 24/7, ensuring authentic identification of objects. It is an ideal choice for applications such as schools, retail centers and parking lots.

## Functions

### Full-color Starlight

The camera adopts F1.0 large aperture lens and 1/2.8" high performance sensor. With higher amount of absorbed light and advanced image processing algorithm, the camera presents an impressive lowlight performance with an exceptional balance between noise reduction and the blur of moving object.

### Warm Supplemental lights

With two warm supplemental LED lights, the camera is able to provide a colorful and vivid image even in total darkness. It also provides visible light. By default, the camera is set to smart light mode, in which the camera can automatically adjust the exposure time and light sensitivity simultaneously to avoid overexposure of the objects in the image center. Also, the sensitivity and intensity of the LED lights can be remotely controlled by OSD menu.

### Broadcast-quality Audio

Audio information is used as supplementary evidence in video surveillance applications. The HDCVI camera supports audio signal transmission over coaxial cable. In addition, it adopts unique audio processing and transmission technology that best restores source audio and eliminates noise, guaranteeing the quality and effectiveness of collected audio information.

### 4 Signals over 1 Coaxial Cable

HDCVI technology supports 4 signals to be transmitted over 1 coaxial cable simultaneously, i.e. video, audio\*, data and power. Dual-way data transmission allows the HDCVI camera to interact with the HCVR, such as sending control signal or triggering alarm. Moreover, HDCVI technology supports PoC for construction flexibility.

\* Audio input is available for some models of HDCVI cameras.

### Long Distance Transmission

HDCVI technology guarantees long-distance and real-time transmission without any loss. It supports up to 800m for 1080P Full HD video via coaxial cable, and up to 300m via UTP cable.\*

\*Actual results verified by real-scene testing in Dahua's test laboratory.

### Simplicity

HDCVI technology inherits the born feature of simplicity from traditional analog surveillance system, making itself a best choice for investment protection. HDCVI system can seamlessly upgrade the traditional analog system without replacing existing coaxial cabling. The plug and play approach enables full HD video surveillance without the hassle of configuring a network.

### Multiple-formats

The camera supports multiple video formats including HDCVI, CVBS, and other two common HD analog formats in the market. A DIP switch located on the cable allows you to quickly toggle formats, further simplifying installation and debugging. This feature makes the camera compatible with not only XVRs, but also most existing HD/SD DVRs.

### Wide Dynamic Range

Embedded with industry leading wide dynamic range (WDR) technology, vivid pictures are achieved even in the most intense contrast lighting conditions. True WDR (120dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

### Advanced 3DNR

3DNR is noise reduction technology that detects and eliminates random noises by comparing two sequential frames. Dahua's advanced 3DNR technology allows remarkable noise reduction with little impact to sharpness, especially under limited lighting condition. Besides, the advanced 3DNR effectively decreases the band width and saves the storage space.

### Protection

The camera's outstanding reliability is unsurpassed due to its rugged design. The camera is protected against water and dust with IP67 ranking, making it suitable for indoor or outdoor environments.

Supporting ±30% input voltage tolerance, this camera suits even the most unstable power supply conditions. Its 4KV lightning rating provides protection against the camera and its structure from the effects of lightning.

### Technical Specification

#### Camera

|                          |   |
|--------------------------|---|
| Image Sensor             | 1/2.8" CMOS                                   |
| Effective Pixels         | 1920(H)×1080(V), 2MP                          |
| Scanning System          | Progressive                                   |
| Electronic Shutter Speed | PAL: 1/4s~1/100,000s<br>NTSC: 1/3s~1/100,000s |
| Minimum Illumination     | 0.001Lux/F1.0, 0Lux LED on                    |
| S/N Ratio                | More than 65dB                                |
| LED Distance             | 40m(131ft)                                    |
| LED On/Off Control       | Auto/Manual                                   |
| LEDs                     | 2   |

#### Lens

|                      |                                  |
|----------------------|----------------------------------|
| Lens Type            | Fixed lens / Fixed iris          |
| Mount Type           | Board-in                         |
| Focal Length         | 3.6mm (6mm Optional)             |
| Max Aperture         | F1.0                             |
| Angle of View        | H: 89.5° (53.8°); V: 47.3° (30°) |
| Focus Control        | N/A                              |
| Close Focus Distance | 1600mm (3500mm)<br>63" (138")    |

#### DORI Distance

Note: The DORI distance is a "general proximity" of distance which makes it easy to pinpoint the right camera for your needs. The DORI distance is calculated based on sensor specification and lab test result according to EN 62676-4 which defines the criteria for Detect, Observe, Recognize and Identify respectively.

|           | DORI Definition   | Distance                             |
|-----------|-------------------|--------------------------------------|
| Detect    | 25px/m (8px/ft)   | 3.6mm: 53m(174ft)<br>6mm: 83m(272ft) |
| Observe   | 63px/m (19px/ft)  | 3.6mm: 21m(69ft)<br>6mm: 33m(108ft)  |
| Recognize | 125px/m (38px/ft) | 3.6mm: 11m(36ft)<br>6mm: 17m(56ft)   |
| Identify  | 250px/m (76px/ft) | 3.6mm: 5m(16ft)<br>6mm: 8m(26ft)     |

#### Pan / Tilt / Rotation

|                   |   |
|-------------------|---|
| Pan/Tilt/Rotation | Pan: 0° ~ 360°<br>Tilt: 0° ~ 90°<br>Rotation: 0° ~ 360° |
|-------------------|---|

#### Video

|              |   |
|--------------|---|
| Resolution   | 1080P (1920×1080)   |
| Frame Rate   | 25/30fps@1080P, 25/30/50/60fps@720P   |
| Video Output | 1-channel BNC high definition video output / CVBS video output (DIP switch) |
| Day/Night    | Color   |

|                 |                 |
|-----------------|-----------------|
| OSD Menu        | Multi-language  |
| BLC Mode        | BLC / HLC / WDR |
| WDR             | 120dB           |
| Gain Control    | AGC             |
| Noise Reduction | 2D/3D           |
| White Balance   | Auto / Manual   |
| Smart Light     | Auto / Manual   |

#### Certifications

|                |   |
|----------------|---|
| Certifications | CE (EN55032, EN55024, EN50130-4)<br>FCC (CFR 47 FCC Part 15 subpartB, ANSI C63.4-2014)<br>UL (UL60950-1+CAN/CSA C22.2 No.60950-1) |
|----------------|---|

#### Interface

|                 |                       |
|-----------------|-----------------------|
| Audio Interface | 1ch in & Built-in mic |
|-----------------|-----------------------|

#### Electrical

|                   |                            |
|-------------------|----------------------------|
| Power Supply      | 12V DC ±30%                |
| Power Consumption | Max. 6.6W (12V DC, LED on) |

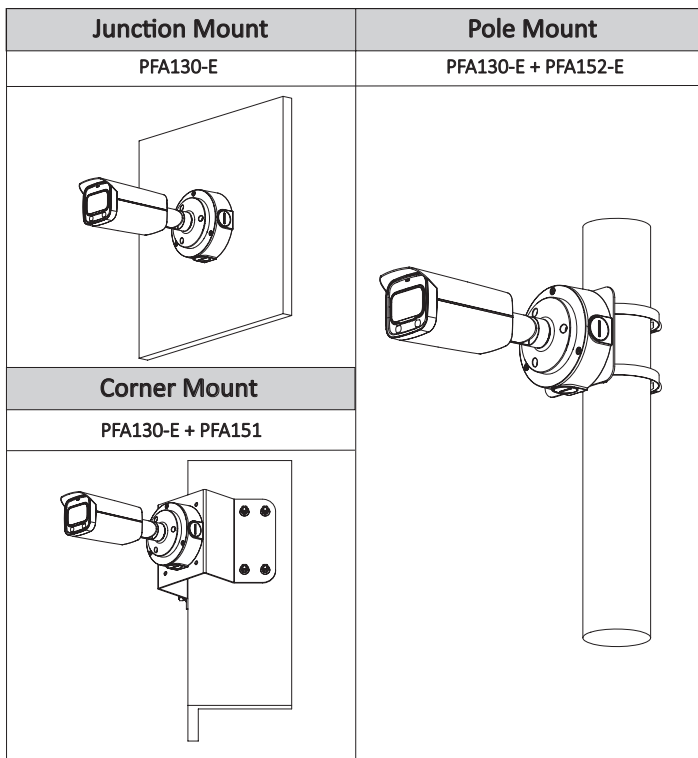
#### Environmental

|  |   |
|--|---|
| Operating Conditions                   | -40°C ~ +60°C (-40°F ~ +140°F) / Less than 90% RH<br>* Start up should be done at above -40°C (-40°F) |
| Storage Conditions                     | -40°C ~ +60°C (-40°F ~ +140°F) / Less than 90% RH   |
| Ingress Protection & Vandal Resistance | IP67  |

#### Construction

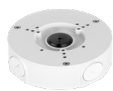
|              |   |
|--------------|---|
| Casing       | Aluminium                                 |
| Dimensions   | 244.1mm×90.4mm×90.4mm (9.61"×3.56"×3.56") |
| Net Weight   | 0.75kg (1.65lb)                           |
| Gross Weight | 0.97kg (2.14lb)                           |

| Ordering Information |                                    |  |
|----------------------|------------------------------------|--|
| Type                 | Part Number                        | Description  |
| 2MP Camera           | DH-HAC-HFW2249TP-I8-A-LED<br>3.6mm | 2MP Full-color Starlight HDCVI<br>Bullet Camera, PAL                                       |
|                      | DH-HAC-HFW2249TP-I8-A-LED<br>6mm   |  |
|                      | DH-HAC-HFW2249TN-I8-A-LED<br>3.6mm | 2MP Full-color Starlight HDCVI<br>Bullet Camera, NTSC                                      |
|                      | DH-HAC-HFW2249TN-I8-A-LED<br>6mm   |  |
| Accessories          | PFA130-E                           | Junction box (For use alone or<br>with PFA152-E pole mount or with<br>PFA151 corner mount) |
|                      | PFA152-E                           | Pole mount (For use with<br>PFA130-E junction box)   |
|                      | PFA151                             | Corner mount (For use with<br>PFA130-E junction box)                                       |
|                      | PFM800-E                           | Passive HDCVI Balun  |
|                      | PFM321                             | 12V 1A Power Adapter   |
|                      | PFM320                             | 12V 2A Power Adapter   |
|                      | PFM300                             | 12V 2A Power Adapter   |



**Accessories**

Optional:



PFA130-E  
Junction box



PFA152-E  
Pole mount



PFA151  
Corner mount bracket



PFM321  
12V 1A Power Adapter



PFM320  
12V 2A Power Adapter



PFM800-E  
Passive HDCVI Balun



PFM300  
12V 2A Power Adapter

**Dimensions (mm/inch)**

