

# DH-HAC-HFW1809T-A-LED

4K Full-Color HDCVI Bullet Camera



Full-Color

## System Overview

The Lite Series is a great choice for consumers looking for high quality monitoring products at a reasonable price. Its low cost and high performance make it ideal for residential areas and SMB solutions. This series is equipped with a wide range of technologies, such as full-color and starlight, providing various solutions for different scenarios.

## Functions

### Full-color

With its advanced image processing algorithm and capability to absorb large quantities of light, the camera provides 24/7 color monitoring that collects clear and highly detailed information, significantly increasing the reliability of the human and vehicle images that are collected as evidence for intelligent analysis.

### Broadcast-quality Audio

Audio signal transmission over coaxial cables is supported by the HDCVI camera. It adopts a unique audio processing and transmission technology that restores source audio and eliminates noise, ensuring the quality and reliability of the audio information that is collected. This becomes important for video surveillance applications that use audio information as a type of supplementary evidence.

### Wide Dynamic Range

With its advanced Wide Dynamic Range technology (WDR), the camera captures highly detailed images and produces high-definition recordings in high-contrast lighting conditions, and in scenes with backlighting or shadows.

- Max. 15 fps@4K.
- 120 dB true WDR, 3D NR.
- 24/7 color imaging.
- 20 m illumination distance.
- Super Adapt.
- Built-in MIC(-A) .
- 3.6 mm fixed lens (2.8 mm optional).
- CVI/CVBS/AHD/TVI switchable.
- IP67, 12 VDC.



### Super Adapt

With its intelligent algorithm, the camera automatically adjusts its parameters to provide optimal performance and vivid images.

### Advanced 3DNR

Dahua's advanced 3DNR technology reduces image noise with little to no impact on image sharpness, especially in poor lighting conditions. It detects the noise, and compares the sequential frames to effectively reduce the noise. It also makes efficient use of bandwidth, saving on storage space.

### Smart Warm Light Illumination

In dark environments, the camera produces vivid images in rich color through its warm LED lights. With its smart light mode setting, it automatically adjusts its exposure time and light sensitivity to avoid the overexposure of objects in the center of the image.

### Protection (IP67, wide voltage)

**IP67:** The camera passed a series of rigorous dust and immersion tests. Its enclosure is both dust-proof and waterproof, and can function normally while being immersed in 1 m deep water for up to 30 minutes.  
**Wide voltage:** The camera has  $\pm 30\%$  input voltage tolerance (for some power supplies) and a wide voltage range, making it suitable for a variety of outdoor scenarios.

### Technical Specification

#### Camera

|                            |   |
|----------------------------|---|
| Pixel                      | 8 MP  |
| Image Sensor               | 4K CMOS   |
| Max. Resolution            | 3840 (H) × 2160 (V)                               |
| Scanning System            | Progressive                                       |
| Electronic Shutter Speed   | PAL: 1/3 s–1/100000 s<br>NTSC: 1/4 s–1/100000 s   |
| Min. Illumination          | 0.001 lux@F1.0 (Color)<br>0 lux (Illuminator on)  |
| S/N Ratio                  | >65 dB  |
| Illumination Distance      | 20 m (65.62 ft)                                   |
| Illuminator On/Off Control | Auto/Manual                                       |
| Illuminator Number         | 1 (Warm light)                                    |
| Pan/Tilt/Rotation Range    | Pan: 0°–360°<br>Tilt: 0°–90°<br>Rotation: 0°–360° |

#### Lens

|                      |   |                        |                       |                      |                      |
|----------------------|---|------------------------|-----------------------|----------------------|----------------------|
| Lens Type            | Fixed-focal   |                        |                       |                      |                      |
| Lens Mount           | M12   |                        |                       |                      |                      |
| Focal Length         | 2.8 mm; 3.6 mm  |                        |                       |                      |                      |
| Max. Aperture        | F1.0  |                        |                       |                      |                      |
| Field of View        | 2.8 mm: H: 106°; V: 55°; D: 125°<br>3.6 mm: H: 85°; V: 45°; D: 100° |                        |                       |                      |                      |
| Iris Control         | Fixed   |                        |                       |                      |                      |
| Close Focus Distance | 2.8 mm: 2.0 m (6.56 ft)<br>3.6 mm: 2.8 m (9.19 ft)                  |                        |                       |                      |                      |
| DORI Distance        | Lens  | Detect                 | Observe               | Recognize            | Identify             |
|                      | 2.8 mm  | 91.0 m<br>(298.56 ft)  | 36.4 m<br>(119.42 ft) | 18.2 m<br>(59.71 ft) | 9.1 m<br>(29.86 ft)  |
|                      | 3.6 mm  | 107.6 m<br>(353.02 ft) | 43.0 m<br>(141.08 ft) | 21.5 m<br>(70.54 ft) | 10.8 m<br>(35.47 ft) |

#### Video

|                  |  |
|------------------|--|
| Video Frame Rate | CVI:<br>PAL: 4K@15 fps; 5M@25 fps; 4M@25 fps;<br>NTSC: 4K@15 fps; 5M@25 fps; 4M@30 fps;<br>AHD:<br>PAL: 4K@15 fps;<br>NTSC: 4K@15 fps;<br>TVI:<br>PAL: 4K@15 fps;<br>NTSC: 4K@15 fps;<br>CVBS:<br>PAL: 960H;<br>NTSC: 960H |
| Resolution       | 4K (3840 × 2160); 5M (2880 × 1620); 4M (2560 × 1440);<br>960 H (960 × 576/960 × 480)   |
| Day/Night        | Color  |
| BLC              | BLC; HLC; WDR; HLC-Pro   |
| WDR              | 120 dB   |
| White Balance    | Auto; Area white balance   |
| Gain Control     | Auto   |

|                   |                             |
|-------------------|-----------------------------|
| Noise Reduction   | 3D NR                       |
| Illumination Mode | Smart Light                 |
| Defog             | Electronic defog            |
| Digital Zoom      | 4×                          |
| Mirror            | Yes                         |
| Privacy Masking   | Off/On (8 areas, rectangle) |

#### Certification

|                |   |
|----------------|---|
| Certifications | CE-LVD: EN 62368-1;<br>CE-EMC: EN 55032; EN 55035;<br>FCC: 47 CFR FCC Part 15, Subpart B;<br>UL: UL62368-1 + CAN/CSA C22.2 No. 62368-1-14 |
|----------------|---|

#### Port

|              |  |
|--------------|--|
| Video Output | Video output choices of CVI/TVI/AHD/CVBS by one BNC port |
| Audio Input  | One channel built-in MIC                                 |

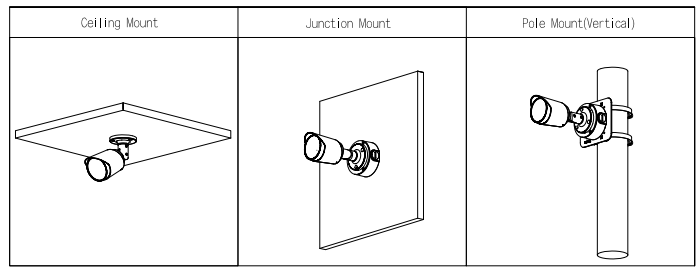
#### Power

|                   |  |
|-------------------|--|
| Power Supply      | 12 VDC ± 30% (It is recommended to use a power adapter to supply the power for one camera) |
| Power Consumption | Max. 5 W (12 VDC, LED on)  |

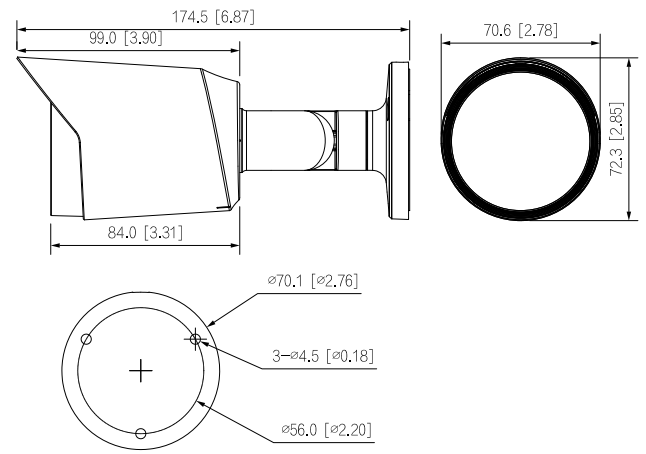
#### Structure

|                       |  |
|-----------------------|--|
| Operating Temperature | –40 °C to +60 °C (–40 °F to +140 °F)                 |
| Operating Humidity    | <95% (RH), non-condensing                            |
| Storage Temperature   | –40 °C to +60 °C (–40 °F to +140 °F)                 |
| Protection            | IP67   |
| Casing Material       | Metal  |
| Product Dimensions    | 174.5 mm × 70.6 mm × 72.3 mm (6.87" × 2.78" × 2.85") |
| Packaging Dimensions  | 205 mm × 91 mm × 91 mm (8.07" × 3.58" × 3.58")       |
| Net Weight            | 0.36 kg (0.79 lb)                                    |
| Gross Weight          | 0.48 kg (1.06 lb)                                    |
| Installation          | Wall mount; ceiling mount; vertical pole mount       |

| Ordering Information   |                        |   |
|------------------------|------------------------|---|
| Type                   | Part Number            | Description                             |
| 4K Camera              | DH-HAC-HFW1809TP-A-LED | 4K Full-Color HDCVI Bullet Camera, PAL  |
|                        | DH-HAC-HFW1809TN-A-LED | 4K Full-Color HDCVI Bullet Camera, NTSC |
| Accessories (Optional) | PFA130-E               | Water-proof Junction Box                |
|                        | PFA134                 | Junction box                            |
|                        | PFA152-E               | Pole Mount Bracket                      |
|                        | PFM800-4K              | 1-CH Passive Video Balun                |
|                        | PFM321D                | 12V 1A Power Adapter                    |
|                        | PFM904                 | Integrated Mount Tester                 |



**Dimensions (mm[inch])**



**Accessories**

Optional:

