**dahua** TECHNOLOGY

# DH-HAC-HFW2249T-A-LED
## 2MP Full-color  HDCVI Bullet Camera



Full-Color

* The parameters and datasheets below can only be applied to 2249-S2 series.

· 24/7 color imaging, Max. 30 fps@1080p

· 20 m illumination distance

· Super Adapt, 120 dB true WDR, 3D NR

· Built-in mic

· 3.6 mm fixed lens (2.8 mm optional)

· CVI/CVBS/AHD/TVI switchable

· IP67, DC 12 V

**Pro** Series | **2Mp** | Full Color | Audio | WDR | **IP67**

### System Overview

Pro Series is a perfect choice for SMB solutions and projects where both high reliability and flexibility are required. All cameras are equipped with Starlight feature, 120dB true WDR and 3DNR, and are able to provide clear images and rich details even under tough lighting conditions.

### Functions

#### Full-color

Full-color camera adopts large aperture lens and high performance sensor. With higher amount of absorbed light and advanced image processing algorithm, the camera provides 24/7 color monitoring that collects clear and vivid information,significantly increasing probability of gathering valid human, vehicle, and event evidence that can be used for further intelligent analysis.

#### 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.

*This function is available for select models.

#### Wide Dynamic Range

With advanced Wide Dynamic Range (WDR) technology, Dahua HDCVI 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.

#### 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.

#### Warm Supplemental lights

With warm supplemental LED lights, the camera is able to provide a coloful and vivid image even in total darkness. 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 overexposureing of the objects in the image center.

#### 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 XVR, 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 real-time transmission at long distance without any loss. It supports up to 700m transmission for 2MP/5MP/8MP HD video via coaxial cable, and up to 300m via UTP cable.

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

#### Protection (IP67, wide voltage)

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.

Wide voltage: The camera allows ±30% (for some power supplies) input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

## Technical Specification

### Camera

| | |
|---|---|
| Image Sensor | 2MP CMOS |
| Max. Resolution | 1920 (H) × 1080 (V) |
| Pixel | 2MP |
| Scanning System | Progressive |
| Electronic Shutter Speed | PAL: 1/3 s–1/100,000 s<br>NTSC: 1/4 s–1/100,000 s |
| S/N Ratio | < 65 dB |
| Min. Illumination | 0.0002 Lux/F1.0, 0 Lux White Light on |
| Illumination Distance | 20 m (65.6 ft) |
| Illuminator On/Off Control | Auto; manual |
| Illuminator Number | 1 |
| Pan/Tilt/Rotation Range | Pan: 0°–360°<br>Tilt: 0°–90°<br>Rotation: 0°–360° |

### Lens

| | |
|---|---|
| Lens Type | Fixed lens |
| Mount Type | 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: 84°; V: 44°; D: 99° |
| Iris Type | Fixed iris |
| Close Focus Distance | 2.8 mm: 1 m (3.3 ft)<br>3.6 mm: 1.7 m (5.6 ft) |

| | Lens | Detect | Observe | Recognize | Identify |
|---|---|---|---|---|---|
| DORI Distance | 2.8 mm | 45.5 m (149.3 ft) | 18.2 m (59.7 ft) | 9.1 m (29.9 ft) | 4.6 m (15.1 ft) |
| | 3.6 mm | 55.2 m (181.1 ft) | 22.1 m (72.5 ft) | 11.0 m (36.1 ft) | 5.5 m (18.0 ft) |

### Video

| | |
|---|---|
| Frame Rate | CVI:<br>PAL: 1080P@25fps<br>NTSC: 1080P@30fps<br>AHD:<br>PAL: 1080P@25fps<br>NTSC: 1080P@30fps<br>TVI:<br>PAL: 1080P@25fps<br>NTSC: 1080P@30fps<br>CVBS:<br>PAL: 960H<br>NTSC: 960H |
| Resolution | 1080P (1920×1080); (960H×960× 576/960×480) |
| BLC | BLC/HLC/WDR/HLC-Pro |
| WDR | 120dB |
| White Balance | Auto; Area white balance |
| Gain Control | Auto; manual |

| | |
|---|---|
| Noise Reduction | 3D NR |
| Smart Light | Yes |
| Mirror | Off/On |
| Privacy Masking | Off/On (8 area, rectangle) |

### Certifications

| | |
|---|---|
| Certifications | CE (EN55032, EN55024, EN50130-4, EN62368-1)<br>FCC (CFR 47 FCC Part 15 subpartB, ANSI C63.4-2014)<br>UL (UL60950-1+CAN/CSA C22.2 No.60950-1) |

### Port

| | |
|---|---|
| Video Output | Video output choices of CVI/TVI/AHD/CVBS by one BNC port (DIP Switch) |
| Audio Input | One channel built-in mic |

### Power

| | |
|---|---|
| Power Supply | 12V ±30% DC |
| Power Consumption | Max 4.2W (12V DC, warm light on) |

### Environment

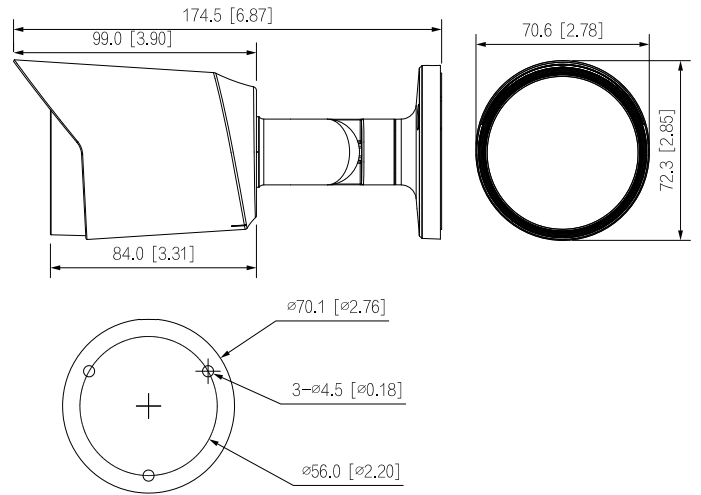| | |
|---|---|
| Operating Temperature | −40°C to +60°C (−40°F to 140°F) ; < 95% (non-condensation) |
| Storage Temperature | −40°C to +60°C (−40°F to 140°F) ; < 95% (non-condensation) |
| Protection Grade | IP67 |

### Structure

| | |
|---|---|
| Casing | Metal throughout the whole casing |
| Camera Dimensions | 205 mm × 91 mm × 91 mm (8.1" × 3.6" × 3.6") |
| Net Weight | 0.36 kg (0.79 lb) |
| Gross Weight | 0.48 kg (1.06 lb) |

## Ordering Information

| Type | Part Number | Description |
|------|-------------|-------------|
| 2MP Camera | DH-HAC-HFW2249TP-A-LED | 2MP Full-color HDCVI Bullet Camera, PAL |
| | DH-HAC-HFW2249TN-A-LED | 2MP Full-color HDCVI Bullet Camera, NTSC |
| Accessories | PFA134 | Junction box |
| | PFA130-E | Junction box |
| | PFA134+PFA152-E | Pole Mount Bracket |
| | PFA130-E+PFA152-E | Pole Mount Bracket |
| | PFM800-E | Passive HDCVI Balun |
| | PFM321 | 12V 1A Power Adapter |
| | PFM904 | Integrated Mount Tester |

## Dimensions (mm[inch])



## Accessories

### Optional:



PFA134
Junction Box

PFA130-E
Junction Box

PFA152-E+PFA134
Pole Mount Bracket +
Water-proof Junction Box

PFA152-E+PFA130-E
Pole Mount Bracket +
Water-proof Junction Box

PFM800-E
Passive HDCVI Balun

PFM321
12V 1A Power Adapter

PFM904
Integrated Mount Tester

| Ceiling Mount | Junction Mount | Pole Mount(Vertical) |
|---------------|----------------|----------------------|
| | | |