

# DH-HAC-HFW1800T/T-A

## 4K Real-time HDCVI IR Bullet Camera



- Max. 4K resolution, real-time video transmission
- CVI/CVBS/AHD/TVI switchable
- Built-in mic (-A)
- Fixed lens (2.8mm; 3.6mm; 6mm optional)
- Max. IR length 30m, Smart IR
- IP67, 12V±30%DC



### System Overview

Experience 4K video surveillance with the simplicity of reusing existing coaxial infrastructure. The 4K HDCVI camera adopts a powerful Dahua ISP and advanced 1/2.7" CMOS sensor, which provides superior high quality images. In addition, the camera features broadcastquality audio to provide enhanced supplementary evidence collection. Ultra-high definition and a complete set of features makes the 4K HDCVI camera an ideal choice for mid to large-size businesses and projects where both highly reliable surveillance and construction flexibility are demanded.

### Functions

#### 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 real-time transmission at long distance without any loss. It supports up to 700m transmission for 4K and 4MP 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.

#### Broadcast-quality Audio

Audio information is used as supplementary evidence in video surveillance applications. The HDCVI camera supports audio signal transmis-

sion 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.

#### Multiple-formats

The camera supports multiple video formats including HDCVI, CVBS, and other two common HD analog formats in the market. This feature makes the camera compatible with not only XVRs, but also most existing HD/SD DVRs. \*

\*Use OSD menu to switch HDCVI to other video formats. Use PFM820 UTC Controller to switch CVBS to HDCVI video format.

#### 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.

#### Smart IR

The camera is designed with microcrystalline LED IR illumination for best lowlight performance. Smart IR is a technology to ensure brightness uniformity in B/W image under low illumination. Dahua's unique Smart IR adjusts to the intensity of camera's infrared LEDs to compensate for the distance of an object, and prevents IR LEDs from overexposing images as the object come closer to the camera.

#### 4K Real-time Image Display

Used together with 4K Real-time XVR, the camera can output 4K real-time video stream with clear details and no lag or smear.

| Technical Specification     |       |                                                                                                                                                                                        |                   |                  |                  | Noise Reduction       | 2D NR                                                                                                                                       |
|-----------------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------|------------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Camera                      |       |                                                                                                                                                                                        |                   |                  |                  | Smart IR              | Yes                                                                                                                                         |
| Image Sensor                |       | 1/2.7 inch CMOS                                                                                                                                                                        |                   |                  |                  | Mirror                | Off/On                                                                                                                                      |
| Effective Pixels            |       | 3840 (H)× 2160 (V), 4K                                                                                                                                                                 |                   |                  |                  | Privacy Masking       | Off/On (8 area, rectangle)                                                                                                                  |
| Scanning System             |       | Progressive                                                                                                                                                                            |                   |                  |                  | Certifications        |                                                                                                                                             |
| Electronic Shutter Speed    |       | PAL: 1/25s–1/100000s<br>NTSC: 1/30s–1/100000s                                                                                                                                          |                   |                  |                  | Certifications        | CE (EN55032, EN55024, EN50130-4,EN60950-1)<br>FCC (CFR 47 FCC Part 15 subpartB, ANSI C63.4-2014)<br>UL (UL60950-1+CAN/CSA C22.2 No.60950-1) |
| S/N Ratio                   |       | >65dB                                                                                                                                                                                  |                   |                  |                  | Port                  |                                                                                                                                             |
| Minimum Illumination        |       | 0.03Lux/F2.0, 30IRE, 0Lux IR on                                                                                                                                                        |                   |                  |                  | Video Output          | Video output choices of CVI/TVI/AHD/CVBS by one BNC port                                                                                    |
| Fill Light Working Distance |       | 30 m (98.4 ft)                                                                                                                                                                         |                   |                  |                  | Audio Input           | One channel, built-in mic (-A)                                                                                                              |
| IR On/Off Control           |       | Auto; manual                                                                                                                                                                           |                   |                  |                  | Power                 |                                                                                                                                             |
| IR LED Number               |       | 1                                                                                                                                                                                      |                   |                  |                  | Power Supply          | 12V ±30% DC                                                                                                                                 |
| Pan/Tilt/Rotation Range     |       | Pan: 0°–360°<br>Tilt: 0°–90°<br>Rotation: 0°–360°                                                                                                                                      |                   |                  |                  | Power Consumption     | Max 4.3W (12V DC, IR on)                                                                                                                    |
| Lens                        |       |                                                                                                                                                                                        |                   |                  |                  | Environment           |                                                                                                                                             |
| Lens Type                   |       | Fixed-focal                                                                                                                                                                            |                   |                  |                  | Operating Temperature | -40°C to +60°C (-40°F to 140°F);<95% (non-condensation)                                                                                     |
| Mount Type                  |       | M12                                                                                                                                                                                    |                   |                  |                  | Storage Temperature   | -40°C to +60°C (-40°F to 140°F);<95% (non-condensation)                                                                                     |
| Focal Length                |       | 2.8mm; 3.6mm;6mm                                                                                                                                                                       |                   |                  |                  | Protection Grade      | IP67                                                                                                                                        |
| Max. Aperture               |       | F2.0                                                                                                                                                                                   |                   |                  |                  | Structure             |                                                                                                                                             |
| Angle of View               |       | 2.8mm: 125° x 105° x 56° (diagonal x horizontal x vertical)<br>3.6mm: 104° x 87° x 47° (diagonal x horizontal x vertical)<br>6mm:62.4° x54.7° x31.3°(diagonal x horizontal x vertical) |                   |                  |                  | Casing                | Metal throughout the whole casing                                                                                                           |
| Iris Type                   |       | Fixed iris                                                                                                                                                                             |                   |                  |                  | Camera Dimensions     | 174.5mm×70.6mm×72.3mm (6.87″×2.78″×2.85″)                                                                                                   |
| Close Focus Distance        |       | 2.8mm: 1.0 m (3.3 ft)<br>3.6mm: 1.9 m (6.2 ft)<br>6mm:3.6m(11.8ft)                                                                                                                     |                   |                  |                  | Net Weight            | 0.35Kg (0.77lb)                                                                                                                             |
| DORI Distance               | Lens  | Detect                                                                                                                                                                                 | Observe           | Recognize        | Identify         | Gross Weight          | 0.45Kg (0.99lb)                                                                                                                             |
|                             | 2.8mm | 74.7 m (245.1 ft)                                                                                                                                                                      | 29.9 m (98.1 ft)  | 14.9 m (48.9ft)  | 7.5 m (24.6 ft)  |                       |                                                                                                                                             |
|                             | 3.6mm | 106.7 m (350.1 ft)                                                                                                                                                                     | 42.7 m (140.1 ft) | 21.3 m (69.9 ft) | 10.7 m (35.1 ft) |                       |                                                                                                                                             |
|                             | 6mm   | 160m (524.9 ft)                                                                                                                                                                        | 64 m (210.0ft)    | 32 m (105.0ft)   | 16 m (52.5ft)    |                       |                                                                                                                                             |
| Video                       |       |                                                                                                                                                                                        |                   |                  |                  |                       |                                                                                                                                             |
| Frame Rate                  |       | CVI: 4K@25/30fps; 4K@15fps; 5M@20fps; 4M@25fps/30fps; AHD: 4K@15fps; TVI: 4K@15fps; CVBS: 960H                                                                                         |                   |                  |                  |                       |                                                                                                                                             |
| Resolution                  |       | 4K (3840 × 2160); 5M (2592 × 1944); 4M (2560 × 1440); 960H (960 × 576/960 × 480)                                                                                                       |                   |                  |                  |                       |                                                                                                                                             |
| Day/Night                   |       | Auto switch by ICR                                                                                                                                                                     |                   |                  |                  |                       |                                                                                                                                             |
| BLC                         |       | BLC/HLC/WDR                                                                                                                                                                            |                   |                  |                  |                       |                                                                                                                                             |
| WDR                         |       | DWDR                                                                                                                                                                                   |                   |                  |                  |                       |                                                                                                                                             |
| White Balance               |       | Auto; manual                                                                                                                                                                           |                   |                  |                  |                       |                                                                                                                                             |
| Gain Control                |       | Auto; manual                                                                                                                                                                           |                   |                  |                  |                       |                                                                                                                                             |

## Ordering Information

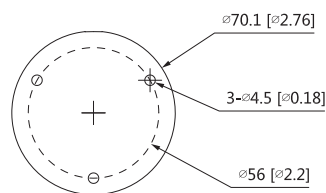
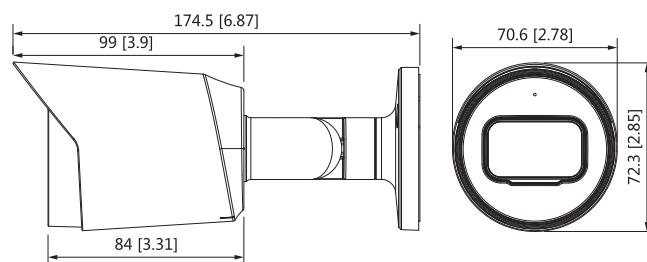
| Type        | Part Number                 | Description                                 |
|-------------|-----------------------------|---------------------------------------------|
| 4K Camera   | DH-HAC-HFW1800TP<br>2.8mm   | 4K HDCVI IR Bullet Camera                   |
|             | DH-HAC-HFW1800TP<br>3.6mm   |                                             |
|             | DH-HAC-HFW1800TP<br>6mm     |                                             |
|             | DH-HAC-HFW1800TN<br>2.8mm   |                                             |
|             | DH-HAC-HFW1800TN<br>3.6mm   |                                             |
|             | DH-HAC-HFW1800TN<br>6mm     |                                             |
|             | DH-HAC-HFW1800TP-A<br>2.8mm |                                             |
|             | DH-HAC-HFW1800TP-A<br>3.6mm |                                             |
|             | DH-HAC-HFW1800TP-A<br>6mm   |                                             |
|             | DH-HAC-HFW1800TN-A<br>2.8mm |                                             |
|             | DH-HAC-HFW1800TN-A<br>3.6mm |                                             |
|             | DH-HAC-HFW1800TN-A<br>6mm   |                                             |
| Accessories | PFA134                      | Water-proof Junction Box                    |
|             | PFB134+PFA152-E             | Water-proof Junction Box+Pole Mount Bracket |
|             | PFM800-4K                   | Passive Video Balun                         |
|             | PFM800B-4K                  | Passive Video Balun                         |
|             | PFM320D Series              | 12V 2A Power Adapter                        |
|             | PFM321D Series              | 12V 1A Power Adapter                        |
|             | PFM320D-015                 | DC12V1.5A Power Adapter                     |



PFM320D-015  
DC12V1.5A Power Adapter

| Junction Mount | Junction Mount<br>PFA134 | Pole Mount<br>PFA134+PFA152-E |
|----------------|--------------------------|-------------------------------|
|                |                          |                               |

## Dimensions (mm[inch])



## Accessories

### Optional:



PFA134  
Water-proof Junction Box



PFB134+PFA152-E  
Water-proof Junction  
Box+Pole Mount Bracket



PFM800-4K  
Passive Video Balun



PFM800B-4K  
Passive Video Balun



PFM320D Series  
12V 2A Power Adapter



PFM321D Series  
12V 1A Power Adapter