# DH-HAC-HFW1801T-A

## 4K IR HDCVI Fixed-focal Bullet Camera



* The parameters and datasheets below can only be applied to 1801-S3 series.
* In order to use the TVI Audio, the firmware of HDCVI camera must be upgraded to V1.001.0000001.0.R.20251204 or later version.

- Max. 15 fps@4K
- Smart IR Illumination.
- 30 m illumination distance.
- Super Adapt.
- Built-in MIC.
- 3.6 mm fixed lens (2.8 mm optional).
- CVI/CVBS/AHD/TVI switchable.
- IP67, 12 VDC.




## Series 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

### Built-in Mic

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.

### Smart IR Illumination

With its IR illumination, the camera provides optimal performance in low light conditions, ensuring uniformity in the brightness of B/W images. Through its smart IR technology, the camera also compensates for the distance of targets by adjusting the intensity of its IR LEDs, preventing overexposure of images as targets move closer to the camera.

### 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.

### 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 ±30% input voltage tolerance (for some power supplies) and a wide voltage range, making it suitable for a variety of outdoor scenarios.

### 4 Signals over 1 Coaxial Cable

HDCVI technology supports 4 signals (video, audio*, data and power) which are simultaneously transmitted over a coaxial cable. Dual-way data transmission allows the HDCVI camera to interact with the XVR to perform various actions such as sending control signals and triggering alarms. HDCVI technology also supports PoC, which makes the camera easy and quick to install.

* Audio input is available for select HDCVI camera models.

### Long Distance Transmission

HDCVI technology provides long distance transmission in real time without transmission loss. It supports transmission distances up to 700 m for 2-MP/5-MP/8-MP HD videos through coaxial cables, and up to 300 m through UTP cables. The results were obtained and verified through rigorous testing in Dahua's test laboratory.

## Technical Specification

### Camera

| | |
|---|---|
| Image Sensor | 4K CMOS |
| Max. Resolution | 3840 (H) × 2160 (V) |
| Scanning System | Progressive |
| Electronic Shutter Speed | PAL: 1/25 s–1/100,000 s<br>NTSC: 1/30 s–1/100,000 s |
| Min. Illumination | 0.01 lux@F2.0 (Color, 30 IRE)<br>0.001 lux@F2.0 (B/W, 30 IRE)<br>0 lux (Illuminator on) |
| S/N Ratio | >65 dB |
| Illumination Distance | IR: 30 m (98.43 ft) |
| Illuminator On/Off Control | Auto/Manual |
| Illuminator Number | 1 (IR light) |
| Angle Adjustment | 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 | F2.0 |
| Field of View | 2.8 mm: H: 105.5°; V: 56.5°; D: 125.3°<br>3.6 mm: H: 86.8°; V: 44.6°; D: 104.5° |
| Iris Control | Fixed |
| Close Focus Distance | 2.8 mm: 1.3 m (4.27 ft)<br>3.6 mm: 2.1 m (6.89 ft) |

DORI Distance

| Lens | Detect | Observe | Recognize | Identify |
|---|---|---|---|---|
| 2.8 mm | 88.0 m ( 288.71 ft) | 35.2 m ( 115.49 ft) | 17.6 m ( 57.74 ft) | 8.8 m ( 28.87 ft) |
| 3.6 mm | 113.6 m ( 372.70 ft) | 45.4 m ( 148.95 ft) | 22.7 m ( 74.48 ft) | 11.4 m ( 37.40 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.

### Video

| | |
|---|---|
| Video Frame Rate | CVI:<br>PAL: 4K@15 fps;<br>NTSC: 4K@15 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); 960H (960 × 576/960 × 480) |
| Day/Night | Auto(ICR)/Color/B/W |
| BLC | BLC; HLC; WDR |
| WDR | WDR |
| White Balance | Auto |
| Gain Control | Auto |
| Noise Reduction | 3D NR |
| Illumination Mode | Smart IR |
| Mirror | Yes |

### Certification

| | |
|---|---|
| Certifications | CE-LVD: EN 62368-1;<br>CE-EMC: EN 55032; EN 55035; |

### Audio

| | |
|---|---|
| Built-in Mic | Yes |
| Camera Audio | CVI; TVI |
| Pick-up Distance | 8 m (26.25 ft) |

### Port

| | |
|---|---|
| Video Output | Video output choices of CVI/TVI/AHD/CVBS by one BNC port (DIP Switch) |

### Power

| | |
|---|---|
| Power Supply | 12 VDC (±30%) |
| Power Consumption | Max 3.3 W (12 VDC, IR on) |

### Environment

| | |
|---|---|
| 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) |
| Storage Humidity | <95% (RH), non-condensing |
| Protection | IP67 |
| Anti-corrosion Level | Basic Protection<br>*The products are designed for general use and are applicable even in areas with no specific requirements for anti-corrosion protection. |

### Structure

| | |
|---|---|
| Casing Material | Metal |
| Product Dimensions | 174.5 mm × 70.6 mm × 72.3 mm (6.87" × 2.78" × 2.85") (L × W × H) |
| Net Weight | 0.37 kg (0.82 lb) |
| Gross Weight | 0.52 kg (1.15 lb) |
| Installation | Wall mount; ceiling mount; vertical pole mount |

## Ordering Information

| Type | Model | Description |
|---|---|---|
| HDCVI CAMERA | DH-HAC-HFW1801TP-A | 4K IR HDCVI Fixed-focal Bullet Camera,PAL |
| | DH-HAC-HFW1801TN-A | 4K IR HDCVI Fixed-focal Bullet Camera,NTSC |
| Accessories (Optional) | G3416GW | G3/4" Water Joint |
| | DH-PFA151 | Corner Mount Bracket |
| | DH-PFA130-E | Water-proof Junction Box |
| | DH-PFA152-E | Pole Mount Bracket |
| | DH-PFA134 | Junction Box |
| | DH-PFM800-4K | 1 Channel Passive HDCVI Balun |
| | DH-PFM321-EN | DC12V1A power adapter |
| | DH-PFM325D-1210EN | DC12V 1A Power Adapter |
| | DH-PFM320D-EN | DC12V2A power adapter |
| | PFM904 | Integrated Mount Tester |

## Accessories

Optional:



G3416GW
G3/4" Water Joint



DH-PFA151
Corner Mount Bracket



DH-PFA130-E
Water-proof Junction Box



DH-PFA152-E
Pole Mount Bracket



DH-PFA134
Junction Box



DH-PFM800-4K
1 Channel Passive HDCVI Balun



DH-PFM321-EN
DC12V1A power adapter



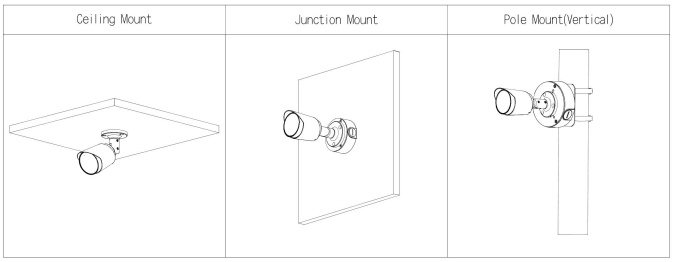
DH-PFM325D-1210EN
DC12V 1A Power Adapter



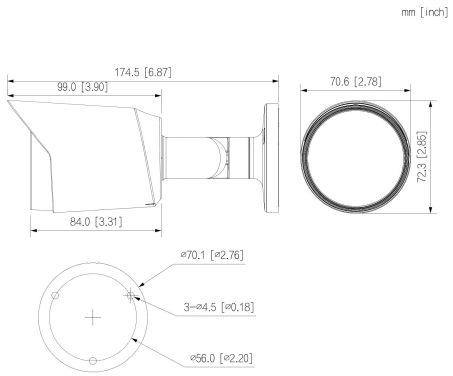
DH-PFM320D-EN
DC12V2A power adapter



PFM904
Integrated Mount Tester




## Dimensions (mm[inch])




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