

# DH-HAC-HDW1800TLM(-A)

## 4K Real-time HDCVI IR Eyeball Camera



- Max. 4K resolution
- CVI/CVBS/AHD/TVI switchable
- 3.6 mm fixed lens (2.8 mm optional)
- Built-in mic (-A)
- Max. IR length 30 m, Smart IR
- IP67, DC12V



### System Overview

Lite Series is suitable for users who requires high quality monitoring products at a reasonable price. It is cost effective and offers high performance, which makes it an ideal choice for residential and small-medium business applications. This series offers an option of a wide range of technologies such as Full-color and Starlight, providing various solutions for different scenarios.

### 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 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.

#### 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.

\* 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.

#### 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 high definition video surveillance without the hassle of configuring a network.

#### Multi-language OSD

OSD menu provides multiple image adjustments and function settings to meet the requirements of different monitoring scenes. The OSD menu includes configurations such as backlight mode, day/night, white balance, privacy mask and motion detect. The camera supports 11 languages for OSD menu, namely, Chinese, English, French, German, Spanish, Portuguese, Italian, Japanese, Korean, Russian and Polish.

#### 4K Real-time Image Display

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

#### Smart Illumination

The camera is designed with 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.

#### 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  $\pm 30\%$  (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               | 4K CMOS  |
| Max. Resolution            | 3840 (H) × 2160 (V)                                |
| Pixel                      | 8 MP   |
| Scanning System            | Progressive  |
| Electronic Shutter Speed   | PAL: 1/25 s–1/100,000s<br>NTSC: 1/30 s–1/100,000 s |
| S/N Ratio                  | > 65 dB  |
| Min. Illumination          | 0.03Lux/F2.0, 30IRE, 0Lux IR on                    |
| Illumination Distance      | 30 m (98.4 ft)                                     |
| Illuminator On/Off Control | Auto; manual                                       |
| Illuminator Number         | 1 (IR light)                                       |
| Pan/Tilt/Rotation Range    | Pan: 0°–360°<br>Tilt: 0°–78°<br>Rotation: 0°–360°  |

#### Lens

|                      |   |                       |                      |                     |                     |
|----------------------|---|-----------------------|----------------------|---------------------|---------------------|
| Lens Type            | Fixed lens  |                       |                      |                     |                     |
| Mount Type           | M12   |                       |                      |                     |                     |
| Focal Length         | 2.8 mm; 3.6 mm;   |                       |                      |                     |                     |
| Max. Aperture        | F2.0  |                       |                      |                     |                     |
| Field of View        | 2.8 mm: H:105° V:56° D:125°<br>3.6 mm: H:87° V:47° D:104° |                       |                      |                     |                     |
| Iris Type            | Fixed   |                       |                      |                     |                     |
| Close Focus Distance | 2.8 mm: 1.0 m (3.3 ft)<br>3.6 mm: 1.9 m (6.2 ft)          |                       |                      |                     |                     |
| DORI Distance        | Lens  | Detect                | Observe              | Recognize           | Identify            |
|                      | 2.8 mm  | 75.0 m<br>(246.1 ft)  | 30.0 m<br>(98.4 ft)  | 15.0 m<br>(49.2 ft) | 8.0 m<br>(26.2 ft)  |
|                      | 3.6 mm  | 146.0 m<br>(479.0 ft) | 58.0 m<br>(190.3 ft) | 16.0 m<br>(52.5 ft) | 15.0 m<br>(49.2 ft) |

#### Video

|                  |  |
|------------------|--|
| Video Frame Rate | CVI:<br>PAL: 4K@25fps; 4K@15fps; 5M@20fps; 4M@25fps;<br>NTSC: 4K@30fps; 4K@15fps; 5M@20fps; 4M@30fps;<br>AHD:<br>PAL: 4K@15fps;<br>NTSC: 4K@15fps;<br>TVI:<br>PAL: 4K@15fps;<br>NTSC: 4K@15fps;<br>CVBS:<br>PAL: 960H;<br>NTSC: 960H |
| Resolution       | 4K (3840×2160);<br>5M (2592×1944);<br>4M (2560×1440);<br>960H (960×576/960×480)  |
| Day/Night        | Auto switch by ICR   |
| BLC              | BLC/HLC/DWDR   |
| WDR              | DWDR   |
| White Balance    | Auto/Manual  |

|                    |                            |
|--------------------|----------------------------|
| Gain Control       | Auto/Manual                |
| Noise Reduction    | 2D NR                      |
| Smart Illumination | 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 |
| Audio Input  | One channel built-in mic (-A)                            |

#### Power

|                   |                           |
|-------------------|---------------------------|
| Power Supply      | 12V ±30% DC               |
| Power Consumption | Max 4.3 W (12V DC, IR on) |

#### Environment

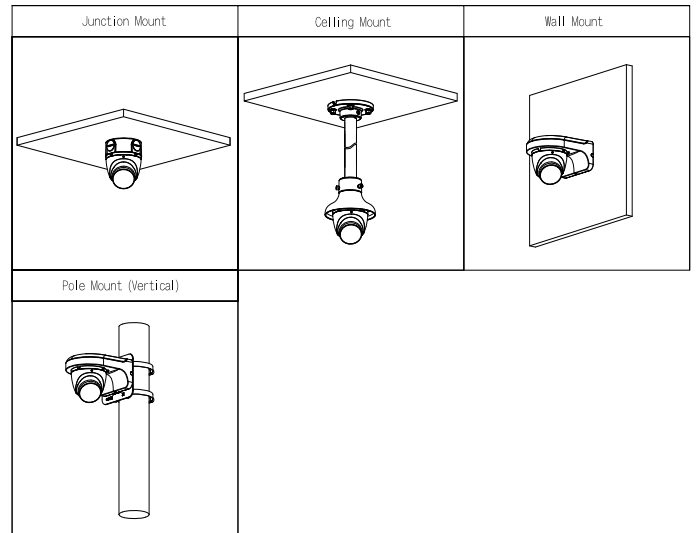
|                       |   |
|-----------------------|---|
| Operating Temperature | –40°C to +60°C (–40°F to 140°F); < 95% (non-condensation) |
| Storage Temperature   | –40°C to +60°C (–40°F to 140°F); < 95% (non-condensation) |
| Protection Grade      | IP67  |

#### Structure

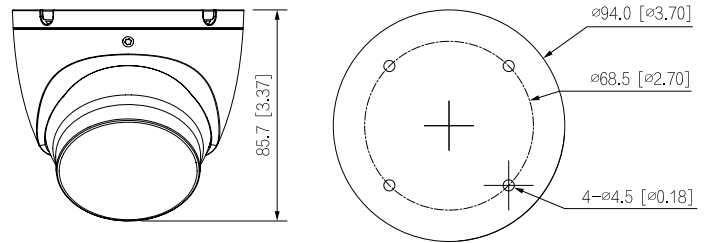
|                   |                                     |
|-------------------|-------------------------------------|
| Casing            | Metal throughout the whole casing   |
| Camera Dimensions | φ94.0 mm × 85.7 mm (φ3.70" × 3.37") |
| Net Weight        | 0.33 kg (0.73 lb)                   |
| Gross Weight      | 0.47 kg (1.04 lb)                   |

**Ordering Information**

| Type        | Part Number           | Description                                |
|-------------|-----------------------|--|
| 4K Camera   | DH-HAC-HDW1800TLM     | 4K Real-time HDCVI IR Eyeball Camera, PAL  |
|             | DH-HAC-HDW1800TLMN    | 4K Real-time HDCVI IR Eyeball Camera, NTSC |
|             | DH-HAC-HDW1800TLM-P-A | 4K Real-time HDCVI IR Eyeball Camera, PAL  |
|             | DH-HAC-HDW1800TLMN-A  | 4K Real-time HDCVI IR Eyeball Camera, NTSC |
| Accessories | PFA13A-E              | Junction box                               |
|             | PFB205W               | Wall Mount Bracket                         |
|             | PFA152-E              | Pole Mount Bracket                         |
|             | PFA106                | Adapter plate                              |
|             | PFB220C               | Ceiling Mount Bracket                      |
|             | PFM800-4K             | Passive HDCVI Balun                        |
|             | PFM321D               | 12V 1A Power Adapter                       |
|             | PFM904                | Integrated Mount Tester                    |



**Dimensions (mm[inch])**



**Accessories**

**Optional:**



PFA13A-E  
Junction box



PFB205W  
Wall Mount Bracket



PFA152-E  
Pole Mount Bracket



PFA106  
Mount Adapter



PFB220C  
Ceiling Mount Bracket



PFM800-4K  
Passive HDCVI Balun



PFM321D  
12V 1A Power Adapter



PFM904  
Integrated Mount Tester