# DH-HAC-HDW2501TMQ-A

## 5MP Starlight HDCVI Quick-to-install IR Eyeball Camera



- * The parameters and datasheets below can only be applied to 2501-S2 series.
- Max 25 fps@5MP (16:9 video output)
- Starlight, 120 dB true WDR, 3D NR
- CVI/CVBS/AHD/TVI switchable
- Quick-to-install eyeball saves installation time
- 3.6 mm fixed lens (2.8 mm,6 mm optional)
- Built-in mic
- Max. IR length 60 m, Smart IR
- IP67, DC12V±30%




### System Overview

Experience 5MP full HD video and the simplicity of using existing cabling infrastructure with HDCVI. The Pro series 5MP HDCVI camera features a compact design and offers a high quality image at a friendly price. It offers various motorized/fixed lens models with 120 dB true WDR and a multi-language OSD and HD/SD switchable output. Its structural flexibility and high cost-performance makes the camera an ideal choice for SMB solutions.

### 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.

**Easy Installation**

HDCVI Quick-to-install eyeball adopts quick-to-install pedestal, which can achieve easier installation than conventional eyeball. Quick-to-install camera reduces time and labor costs.

**Long Distance Transmission**

HDCVI technology guarantees real-time transmission at long distance without any loss. It supports up to 700 m for 5MP HD video via coaxial cable, and up to 300 m 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.

**Starlight**

With the adoption of large sized high performance sensor, the camera is able to provide incomparable performance even under extreme lowlight environment. The starlight feature allows more details to be captured and accurate color to be recognized at night or in scenes with limited illumination.

**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.

**Smart IR**

The camera is designed with IR LED illumination for best lowlight performance. Smart IR is a technology to ensure brightness uniformity in B/W image under low illumination. Dahua 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 comes closer to the camera.

**Wide Dynamic Range**

Embedded with industry leading wide dynamic range (WDR) technology,vivid pictures are achieved even in the most intense contrast lighting conditions. True WDR (120dB) optimizes both the bright and dark areas of ascene at the same time to provide usable video.

**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.



INFRONT TECHNOLOGIES

**Supplied by INFRONT TECHNOLOGIES**

**Phone 1300 736 970**

sales@infronttech.com.au · infronttech.com.au

*For more information call or email — Australia-wide sales, technical support and warranty service.*

## Technical Specification

### Camera

| | |
|---|---|
| Image Sensor | 1/2.7 inch CMOS |
| Max. Resolution | 2880 (H) × 1620 (V) |
| Pixel | 5 MP |
| 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 | 0.001 Lux/F1.6, 30IRE, 0Lux IR on |
| Illumination Distance | 60 m (196.9 ft) |
| Illuminator On/Off Control | Auto / Manual |
| Illuminator Number | 2 |
| Pan/Tilt/Rotation Range | Pan: 0°–360°<br>Tilt: 0°–78°<br>Rotation: 0°–360° |

### Lens

| | |
|---|---|
| Lens Type | Fixed-focal |
| Mount Type | M12 |
| Focal Length | 2.8 mm; 3.6 mm; 6 mm |
| Max. Aperture | F1.6 |
| Field of View | 2.8 mm: 132° × 111° × 58°<br>(diagonal × horizontal × vertical)<br>3.6 mm: 109° × 92° × 48°<br>(diagonal × horizontal × vertical)<br>6 mm: 65° × 57° × 30°<br>(diagonal × horizontal × vertical) |
| Iris Type | Fixed iris |
| Close Focus Distance | 2.8 mm: 0.9 m (3.0 ft)<br>3.6 mm: 1.6 m (5.2 ft)<br>6 mm: 3.1 m(10.2 ft) |

| | Lens | Detect | Observe | Recognize | Identify |
|---|---|---|---|---|---|
| DORI Distance | 2.8 mm | 63.6 m (208.7 ft) | 25.4 m (83.3 ft) | 12.7 m (41.7 ft) | 6.4 m (21.0 ft) |
| | 3.6 mm | 80 m (262.5 ft) | 32 m (105.0 ft) | 16 m (52.5 ft) | 8 m (26.2 ft) |
| | 6 mm | 120 m (393.7 ft) | 48 m (157.5 ft) | 24 m (78.7 ft) | 12 m (39.4 ft) |

### Video

| | |
|---|---|
| Frame Rate | CVI:<br>PAL: 5M@25 fps; 4M@25 fps; 1080P@25 fps<br>NTSC: 5M@25 fps; 4M@30 fps; 1080P@30 fps<br>AHD:<br>PAL: 4M@25 fps;<br>NTSC: 4M@30 fps<br>TVI:<br>PAL: 4M@25 fps;<br>NTSC: 4M@30 fps<br>CVBS:<br>PAL: 960H;<br>NTSC: 960H |
| Resolution | 5M (2880 × 1620); 4M (2560 × 1440); 1080P (1920 × 1080); 960H (960 × 576/960 × 480) |
| Day/Night | Auto switch by ICR |
| BLC | BLC/HLC/WDR/HLC-Pro |
| WDR | 120 dB |
| White Balance | Auto / Manual |
| Gain Control | Auto / Manual |
| Noise Reduction | 2D NR/3D NR |
| Smart IR | Yes |
| Mirror | Off/On |
| Privacy Masking | Off/On (8 areas, rectangle) |

### Certifications

| | |
|---|---|
| Certifications | CE (EN55032:2015, EN 61000-3-2:2014, EN 61000-3-3:2013, EN55024:2010+A1:2015, EN 55035:2017, EN50130-4:2011+A1:2014, EN 62368-1:2014+A11:2017)<br>FCC (CFR 47 FCC Part 15 subpartB, ANSI C63.4-2014)<br>UL (UL60950-1+CAN/CSA C22.2 No.60950-1) |

### Port

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

### Power

| | |
|---|---|
| Power Supply | DC 12V ±30% |
| Power Consumption | Max 5.9W (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 dome+metal cover+plastic decorative ring |
| Camera Dimensions | ϕ121.9 mm × 99.1 mm (ϕ4.8" × 3.9") |
| Net Weight | 0.43 kg (0.95 lb) |
| Gross Weight | 0.6 kg (1.32 lb) |



INFRONT TECHNOLOGIES

**Supplied by INFRONT TECHNOLOGIES**

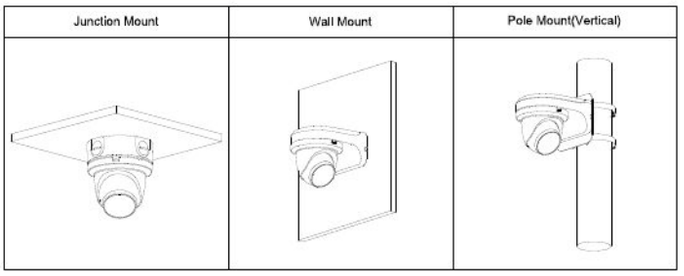
**Phone 1300 736 970**

sales@infronttech.com.au · infronttech.com.au

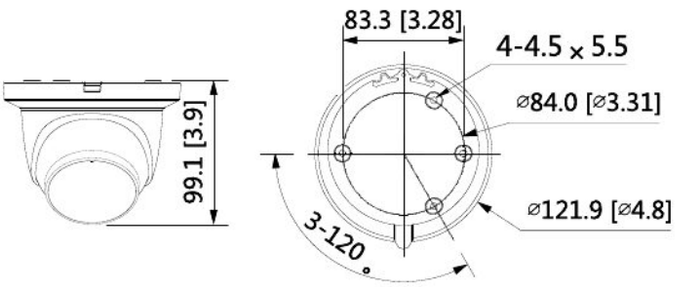
*For more information call or email — Australia-wide sales, technical support and warranty service.*

## Ordering Information

| Type | Part Number | Description |
|---|---|---|
| 5MP Camera | DH-HAC-HDW2501TMQP-A 2.8 mm | 5MP Starlight HDCVI Quick-to-install IR Eyeball Camera |
| | DH-HAC-HDW2501TMQN-A 2.8 mm | |
| | DH-HAC-HDW2501TMQP-A 3.6 mm | |
| | DH-HAC-HDW2501TMQN-A 3.6 mm | |
| | DH-HAC-HDW2501TMQP-A 6 mm | |
| | DH-HAC-HDW2501TMQN-A 6 mm | |
| Accessories | PFA137 | Junction Box |
| | PFA130-E | IP66 Junction Box |
| | PFB205W | Wall Mount Bracket |
| | PFA152-E | Pole Mount Bracket |
| | PFM8000-4K | Passive HDCVI Balun |
| | PFM321D | 12V 1A Power Adapter |
| | PFM904 | Integrated Mount Tester |




## Dimensions (mm[inch])




## Accessories

**Optional:**



PFA137
Junction Box



PFA130-E
IP66 Junction Box



PFB205W
Wall Mount Bracket



PFA152-E
Pole Mount Bracket



PFM800-4K
Passive HDCVI Balun



PFM321D
12V 1A Power Adapter



PFM904
Integrated Mount Tester

Rev 001.001 © 2020 Dahua. All rights reserved. Design and specifications are subject to change without notice.
Pictures in the document are for reference only, and the actual product shall prevail.



INFRONT TECHNOLOGIES

**Supplied by INFRONT TECHNOLOGIES**

**Phone 1300 736 970**

sales@infronttech.com.au · infronttech.com.au

*For more information call or email — Australia-wide sales, technical support and warranty service.*