

# DH-HAC-T1A21-U-IL-A

## 2MP Smart Dual Light HDCVI Fixed-focal Eyeball Camera



- Max. 30 fps@1080p.
- Smart Dual Light.
- 25 m illumination distance.
- Built-in MIC.
- Quick-to-install eyeball saves installation time.
- 2.8 mm fixed lens (3.6 mm optional).
- CVI/CVBS/AHD/TVI switchable.



### Series Overview

The Cooper Series offers simple and highly cost-effective HDCVI solutions. It provides 24/7 reliable monitoring with high-quality image performance, saving cost on both material and labor force. It is also designed and built to the specific standards of Dahua.

### Functions

#### Smart Dual Light

With its smart dual light mechanism, the camera automatically turns on the white light when Perimeter Protection/SMD Plus function of AI XVR detects a target in the rule area to capture clear, vivid images. When the target leaves the rule area, the camera automatically switches over from the white light to the IR light to significantly reduce light pollution.

#### Easy Installation

HDCVI eyeball comes with a quick-to-install pedestal, which makes it easier to install than conventional eyeballs and reduces cost on time and labor.

#### Broadcast-quality Audio

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.

### 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.

### Simplicity

HDCVI technology inherits the simplicity of traditional analog surveillance systems, making it a great mechanism for protecting your valuables. HDCVI can be upgraded from the traditional analog system without replacing the existing coaxial cabling. Its plug and play design enables it to produce high-definition videos during surveillance without the hassle of configuring a network.

| Technical Specification    |        |                                                                                                                                                                                           |                      |                      |                     | Gain Control          |  | Auto;Manual                                              |  |
|----------------------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------|---------------------|-----------------------|--|----------------------------------------------------------|--|
| Camera                     |        |                                                                                                                                                                                           |                      |                      |                     | Noise Reduction       |  | 2D NR                                                    |  |
| Image Sensor               |        | 2 MP CMOS                                                                                                                                                                                 |                      |                      |                     | Illumination Mode     |  | Smart IR&WL; WL Mode; IR Mode                            |  |
| Max. Resolution            |        | 1920 (H) × 1080 (V)                                                                                                                                                                       |                      |                      |                     | Mirror                |  | Yes                                                      |  |
| Scanning System            |        | Progressive                                                                                                                                                                               |                      |                      |                     | Privacy Masking       |  | Off/On (8 areas, rectangle)                              |  |
| Electronic Shutter Speed   |        | PAL: 1/25 s–1/100,000 s;<br>NTSC: 1/30 s–1/100,000 s                                                                                                                                      |                      |                      |                     | Certification         |  |                                                          |  |
| Min. Illumination          |        | 0.02 lux@F2.0 (Color, 30 IRE);<br>0.002 lux@F2.0 (B/W, 30 IRE);<br>0 lux (Illuminator on)                                                                                                 |                      |                      |                     | Certifications        |  | CE-LVD: EN 62368-1;<br>CE-EMC: EN 55032; EN 55035        |  |
| S/N Ratio                  |        | >65 dB                                                                                                                                                                                    |                      |                      |                     | Port                  |  |                                                          |  |
| Illumination Distance      |        | IR: 25 m (82.02 ft);<br>Warm light: 20 m (65.62 ft)                                                                                                                                       |                      |                      |                     | Video Output          |  | Video output choices of CVI/TVI/AHD/CVBS by one BNC port |  |
| Illuminator On/Off Control |        | Auto;Manual                                                                                                                                                                               |                      |                      |                     | Audio Input           |  | One channel built-in Mic                                 |  |
| Illuminator Number         |        | 2 (Warm light);2 (IR light)                                                                                                                                                               |                      |                      |                     | Power                 |  |                                                          |  |
| Angle Adjustment           |        | Pan: 0°–360°<br>Tilt: 0°–78°<br>Rotation: 0°–360°                                                                                                                                         |                      |                      |                     | Power Supply          |  | 12 VDC ± 30%                                             |  |
|                            |        |                                                                                                                                                                                           |                      |                      |                     | Power Consumption     |  | Max 2.1 W (12 VDC, LED on)                               |  |
| Lens                       |        |                                                                                                                                                                                           |                      |                      |                     | Environment           |  |                                                          |  |
| Lens Type                  |        | Fixed-focal                                                                                                                                                                               |                      |                      |                     | Operating Temperature |  | –40 °C to +60 °C (–40 °F to +140 °F)                     |  |
| Lens Mount                 |        | M12                                                                                                                                                                                       |                      |                      |                     | Operating Humidity    |  | <95% (RH), non-condensing                                |  |
| Focal Length               |        | 2.8 mm;3.6 mm                                                                                                                                                                             |                      |                      |                     | Storage Temperature   |  | –40 °C to +60 °C (–40 °F to +140 °F)                     |  |
| Max. Aperture              |        | F2.0                                                                                                                                                                                      |                      |                      |                     | Storage Humidity      |  | <95% (RH), non-condensing                                |  |
| Field of View              |        | 2.8 mm: H: 100°; V: 54°; D: 117°<br>3.6 mm: H: 80°; V: 43°; D: 94°                                                                                                                        |                      |                      |                     | Anti-corrosion Level  |  | Basic Protection                                         |  |
| Iris Control               |        | Fixed                                                                                                                                                                                     |                      |                      |                     | Structure             |  |                                                          |  |
| Close Focus Distance       |        | 2.8 mm: 0.5 m (1.64 ft)<br>3.6 mm: 0.8 m (2.62 ft)                                                                                                                                        |                      |                      |                     | Casing Material       |  | Plastic                                                  |  |
| DORI Distance              | Lens   | Detect                                                                                                                                                                                    | Observe              | Recognize            | Identify            | Product Dimensions    |  |                                                          |  |
|                            | 2.8 mm | 44.7 m<br>(146.65 ft)                                                                                                                                                                     | 17.9 m<br>(58.73 ft) | 8.9 m<br>(29.20 ft)  | 4.5 m<br>(14.76 ft) | Net Weight            |  |                                                          |  |
|                            | 3.6 mm | 55.0 m<br>(180.45 ft)                                                                                                                                                                     | 22.0 m<br>(72.18 ft) | 11.0 m<br>(36.09 ft) | 5.5 m<br>(18.04 ft) | Gross Weight          |  |                                                          |  |
|                            |        |                                                                                                                                                                                           |                      |                      |                     | Installation          |  | Wall mount; ceiling mount                                |  |
| Video                      |        |                                                                                                                                                                                           |                      |                      |                     |                       |  |                                                          |  |
| Video Frame Rate           |        | CVI:<br>PAL: 1080p@25 fps<br>NTSC: 1080p@30 fps<br>AHD:<br>PAL: 1080p@25 fps<br>NTSC: 1080p@30 fps<br>TVI:<br>PAL: 1080p@25 fps<br>NTSC: 1080p@30 fps<br>CVBS:<br>PAL: 960H<br>NTSC: 960H |                      |                      |                     |                       |  |                                                          |  |
| Resolution                 |        | 1080p (1920 × 1080); 960H (960 × 576/960 × 480)                                                                                                                                           |                      |                      |                     |                       |  |                                                          |  |
| Day/Night                  |        | Auto(ICR)/Color/B/W                                                                                                                                                                       |                      |                      |                     |                       |  |                                                          |  |
| BLC                        |        | BLC; HLC; DWDR                                                                                                                                                                            |                      |                      |                     |                       |  |                                                          |  |
| WDR                        |        | DWDR                                                                                                                                                                                      |                      |                      |                     |                       |  |                                                          |  |
| White Balance              |        | Auto;Area white balance                                                                                                                                                                   |                      |                      |                     |                       |  |                                                          |  |

| Ordering Information   |                      |                                                             |
|------------------------|----------------------|-------------------------------------------------------------|
| Type                   | Model                | Description                                                 |
| 2MP Camera             | DH-HAC-T1A21P-U-IL-A | 2MP Smart Dual Light HDCVI Fixed-focal Eyeball Camera, PAL  |
|                        | DH-HAC-T1A21N-U-IL-A | 2MP Smart Dual Light HDCVI Fixed-focal Eyeball Camera, NTSC |
| Accessories (Optional) | PFA12C               | Plastic Junction Box                                        |
|                        | PFM321D              | 12V 1A Power Adapter                                        |
|                        | PFM800-E             | Passive HDCVI Balun                                         |
|                        | PFM904               | Integrated Mount Tester                                     |

Accessories

Optional:



PFA12C  
Plastic Junction Box



PFM321D  
12V 1A Power Adapter

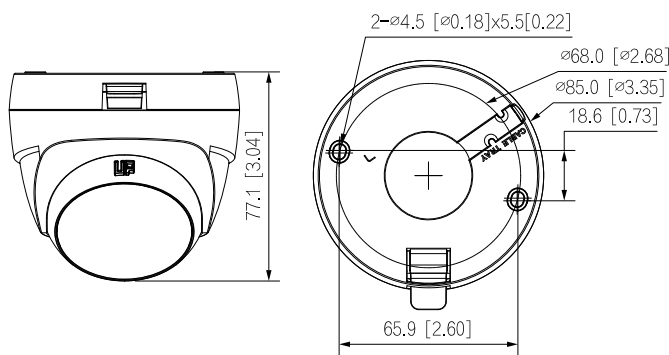


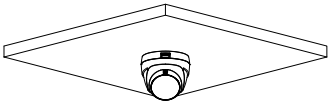
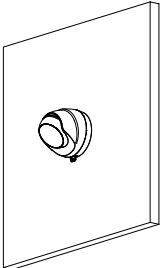
PFM800-E  
Passive HDCVI Balun



PFM904  
Integrated Mount Tester

Dimensions (mm[inch])



| Junction Mount                                                                      | Wall Mount                                                                          |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |