

# DH-HAC-T2A51-U-IL-A

## 5MP Smart Dual Light HDCVI Fixed-focal Eyeball Camera



\* The parameters and datasheets below can only be applied to A51-U-IL-S2 series.  
\* In order to use the 5MP 16:9 and the Smart Dual Light HDCVI camera, the firmware of XVR must be upgraded to V4.001.0000004.1.R.220323 or later version.

- Max 25 fps@5MP (16:9 video output)
- Smart Dual Light.
- 30 m illumination distance.
- Built-in Mic
- 3.6 mm fixed lens (2.8 mm; 6mm optional).
- CVI/CVBS/AHD/TVI switchable.
- IP67, 12 VDC.



### 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.

#### 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.

#### 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  $\pm 30\%$  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.

### 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.

### Multiple Formats

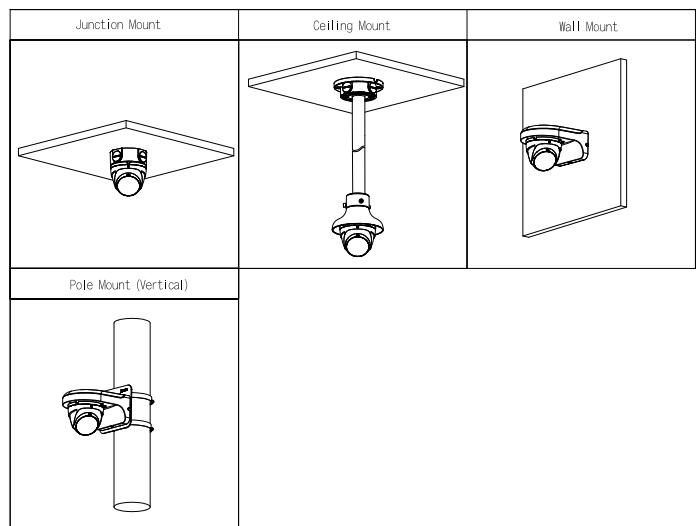
The camera supports videos in HDCVI, CVBS, TVI and AHD formats. The DIP switch on the cable allows you to quickly change formats through simple installation and debugging procedures. This feature makes the camera compatible with both XVRs and HD/SD XVRs.

\* The DIP Switch is available for select HDCVI camera models.

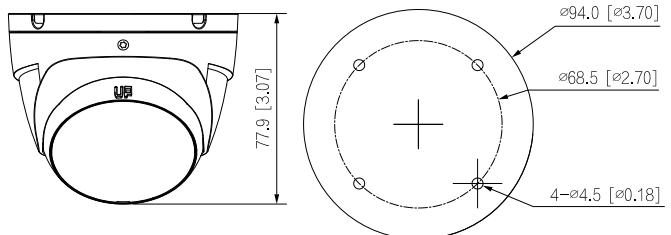
Technical Specification					
Camera					
Image Sensor					
Max. Resolution					
Scanning System					
Electronic Shutter Speed					
Min. Illumination					
S/N Ratio					
Illumination Distance					
Illuminator On/Off Control					
Illuminator Number					
Angle Adjustment					
Lens					
Lens Type					
Auto Focus					
Lens Mount					
Focal Length					
Max. Aperture					
Field of View					
Iris Control					
Close Focus Distance					
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	66.0 m (216.54 ft)	26.4 m (86.61 ft)	13.2 m (43.31 ft)	6.6 m (21.65 ft)
	3.6 mm	76.0 m (249.34 ft)	30.4 m (99.74 ft)	15.2 m (49.87 ft)	7.6 m (24.93 ft)
	6 mm	120.0 m (393.70 ft)	48.0 m (157.48 ft)	24.0 m (78.74 ft)	12.0 m (39.37 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: PAL: 5M@25 fps; 4M@25 fps; 1080p@25 fps; NTSC: 5M@25 fps; 4M@30 fps; 1080p@30 fps AHD: PAL: 4M@25 fps; NTSC: 4M@30 fps TVI: PAL: 4M@25 fps; NTSC: 4M@30 fps CVBS: PAL: 960H; NTSC: 960H					
Resolution					
5M (2880 × 1620); 4M (2560 × 1440); 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					
Gain Control					
Auto					
Noise Reduction					
2D NR					
Illumination Mode					
Smart IR&WL; WL Mode; IR Mode					
Mirror					
Yes					
Privacy Masking					
Off/On (8 areas, rectangle)					
Certification					
Certifications					
CE-LVD: EN 62368-1; CE-EMC: EN 55032; EN 55035					
Port					
Video Output					
Video output choices of CVI/TVI/AHD/CVBS by one BNC port					
Audio Input					
One channel built-in Mic					
Power					
Power Supply					
12 VDC ± 30%					
Power Consumption					
Max 4.0 W (12V DC, WLED 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					
Structure					
Casing Material					
Metal					
Product Dimensions					
Φ94.0 mm × 77.9 mm (Φ3.70" × 3.07")					
Net Weight					
0.30 kg (0.66 lb)					
Gross Weight					
0.36 kg (0.79 lb)					
Installation					
Wall mount; ceiling mount; vertical pole mount					

## Ordering Information

Type	Model	Description
5MP Camera	DH-HAC-T2A51P-U-IL-A	5MP Smart Dual Light HDCVI Fixed-focal Eyeball Camera, PAL
	DH-HAC-T2A51N-U-IL-A	5MP Smart Dual Light HDCVI Fixed-focal Eyeball Camera, NTSC
Accessories (Optional)	PFA13A-E	Junction Box
	PFB205W-E	Wall Mount Bracket
	PFA152-E	Pole Mount Bracket
	PFA106	Adapter Plate of Mini Dome & Eyeball Camera
	PFB220C	Ceiling Mount Bracket
	PFM800-4K	1-CH Passive Video Balun
	PFM321D	12V 1A Power Adapter
	PFM904	Integrated Mount Tester



## Dimensions (mm[inch])



## Accessories

Optional:



PFA13A-E  
Junction Box



PFB205W-E  
Wall Mount Bracket



PFA152-E  
Pole Mount Bracket



PFA106  
Adapter Plate of Mini  
Dome & Eyeball Camera



PFB220C  
Ceiling Mount Bracket



PFM800-4K  
1-CH Passive Video Balun



PFM321D  
12V 1A Power  
Adapter



PFM904  
Integrated Mount Tester