

DH-HAC-T1A21-A

2MP HDCVI IR Eyeball Camera

HDCVI



- Max 30 fps@1080p
- 3.6 mm fixed lens (2.8 mm, 6 mm optional)
- CVI/CVBS/AHD/TVI switchable
- Max. IR length 20 m, Smart IR
- Built-in Mic(-A)
- 12 VDC



System Overview

Cooper Series offers simple and highly cost-effective HDCVI solutions. It offers 24/7 reliable monitoring with high-quality image performance, saving both product and labor costs. It is also highly guaranteed by Dahua quality standard.

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.

Long Distance Transmission

HDCVI technology guarantees real-time transmission at long distance without any loss. It supports up to 700 m transmission for 2MP/5MP/8MP 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.

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.

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.

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.

Technical Specification

Camera	
Pixel	2 MP
Image Sensor	2 MP CMOS
Max. Resolution	1920 (H) × 1080 (V)
Scanning System	Progressive
Electronic Shutter Speed	PAL: 1/25 s–1/100000 s NTSC: 1/30 s–1/100000 s
Min. Illumination	0.04 lux/F2.0, 30 IRE, 0 lux IR on
S/N Ratio	> 65 dB
Illumination Distance	20 m (65.62 ft)
Illuminator On/Off Control	Auto
Illuminator Number	1 (IR light)
Pan/Tilt/Rotation Range	Pan: 0°–360° Tilt: 0°–78° Rotation: 0°–360°

Lens					
Lens Type	Fixed-focal				
Lens Mount	M12				
Focal Length	2.8 mm; 3.6 mm; 6 mm;				
Max. Aperture	F2.0				
Field of View	2.8 mm: Horizontal: 100°; Vertical: 53°; Diagonal: 120° 3.6 mm: Horizontal: 83°; Vertical: 44°; Diagonal: 99° 6 mm: Horizontal: 53°; Vertical: 30°; Diagonal: 60°				
Iris Control	Fixed				
Close Focus Distance	2.8 mm: 0.6 m (1.97 ft) 3.6 mm: 0.8 m (2.62 ft) 6 mm: 1.9 m (6.23 ft)				
DORI distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	46.9 m (153.87 ft)	18.8 m (61.67 ft)	9.4 m (30.83 ft)	4.7 m (15.41 ft)
	3.6 mm	53.7 m (176.18 ft)	21.5 m (70.54 ft)	10.7 m (35.10 ft)	5.4 m (17.72 ft)
	6 mm	82.8 m (271.65 ft)	33.1 m (108.60 ft)	16.6 m (54.46 ft)	8.3 m (27.23 ft)

Video	
Video Frame Rate	CVI: PAL: 1080p@25 fps; 720p@25 fps; NTSC: 1080p@30 fps; 720p@30 fps; AHD: PAL: 1080p@25 fps; 720p@25 fps; NTSC: 1080p@30 fps; 720p@30 fps; TVI: PAL: 1080p@25 fps; 720p@25 fps; NTSC: 1080p@30 fps; 720p@30 fps; CVBS: PAL: 960×576H; NTSC: 960×480H
Resolution	1080p (1920 × 1080); 720p (1280 × 720); 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/Manual
Noise Reduction	2D NR
Motion Detection	Yes
Smart Illumination	Yes
Mirror	Yes
Privacy Masking	Off/On (8 area, rectangle)

Certifications	
Certifications	CE (EN55032, EN55024, EN50130-4) FCC (CFR 47 FCC Part 15 subpartB, ANSI C63.4-2014)

Port	
Video Output	Video output choices of CVI/TVI/AHD/CVBS by one BNC port
Built-in Mic	Yes

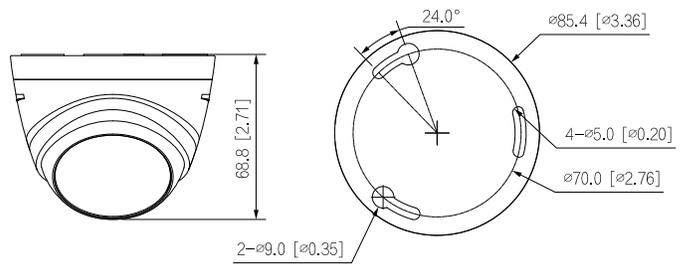
Power	
Power Supply	12 VDC ± 30%
Power Consumption	Max 2.2 W (12 VDC, IR on)

Environmental	
Operating Temperature	–40 °C to +60 °C (–40 °F to +140 °F)
Operating Humidity	< 95% (non-condensation)
Storage Temperature	–40 °C to +60 °C (–40 °F to +140 °F)

Structure	
Casing	Plastic throughout the whole casing
Product Dimensions	68.8 mm × φ85.4 mm (2.71" × φ3.36")
Packaging Dimensions	102 mm × 98 mm × 72 mm (4" × 3.85" × 2.83")
Net Weight	0.09 kg (0.2 lb)
Gross Weight	0.13 kg (0.27 lb)
Installation	Wall; ceiling; horizontal pole mount; ceiling mount

Ordering Information		
Type	Part Number	Description
2MP Camera	DH-HAC-T1A21P-A	2MP HDCVI IR Eyeball Camera, PAL
	DH-HAC-T1A21N-A	2MP HDCVI IR Eyeball Camera, NTSC
Accessories (Optional)	PFA135	Junction Box
	PFB205W	Wall Mount Bracket
	PFA135+PFA152-E	Junction Box + Pole Mount Bracket
	PFA106+PFB220C	Adapter Plate of Mini Dome & Eyeball Camera + Ceiling Mount Bracket of Mini Dome & Eyeball Camera
	PFM800-E	Passive HDCVI Balun
	PFM321	12V 1A Power Adapter
	PFM904	Integrated Mount Tester

Dimensions (mm[inch])



Accessories

Optional:



PFA135
Junction Box



PFB205W
Wall Mount
Bracket



PFA135+PFA152-E
Junction Box + Pole
Mount Bracket



PFA106+PFB220C
Adapter Plate of Mini Dome
& Eyeball Camera + Ceiling
Mount Bracket of Mini
Dome & Eyeball Camera



PFM800-E
Passive HDCVI
Balun



PFM321
12V 1A Power
Adapter



PFM904
Integrated Mount
Tester

Junction Mount	Wall Mount	Pole Mount (Vertical)