DH-HAC-T1A21P-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

Camera

Image Sensor	2 MP CMOS
Max. Resolution	1920 (H) × 1080 (V)
Scanning System	Progressive
Electronic Shutter Speed	PAL: 1/25 s–1/100,000 s; NTSC: 1/30 s–1/100,000 s
Min. Illumination	0.02 lux@F2.0 (Color, 30 IRE); 0.002 lux@F2.0 (B/W, 30 IRE); 0 lux (Illuminator on)
S/N Ratio	>65 dB
Illumination Distance	IR: 25 m (82.02 ft); Warm light: 20 m (65.62 ft)
Illuminator On/Off Control	Auto;Manual
Illuminator Number	2 (Warm light);2 (IR light)
Angle Adjustment	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
Max. Aperture	F2.0
Field of View	2.8 mm: H: 100°; V: 54°; D: 117° 3.6 mm: H: 80°; V: 43°; D: 94°
Iris Control	Fixed
Close Focus Distance	2.8 mm: 0.5 m (1.64 ft) 3.6 mm: 0.8 m (2.62 ft)

	Lens	Detect	Observe	Recognize	Identify
DORI Distance	2.8 mm	44.7 m (146.65 ft)	17.9 m (58.73 ft)	8.9 m (29.20 ft)	4.5 m (14.76 ft)
	3.6 mm	55.0 m (180.45 ft)	22.0 m (72.18 ft)	11.0 m (36.09 ft)	5.5 m (18.04 ft)

Video

Video Frame Rate	CVI: PAL: 1080p@25 fps NTSC: 1080p@30 fps AHD: PAL: 1080p@25 fps NTSC: 1080p@30 fps TVI: PAL: 1080p@25 fps NTSC: 1080p@30 fps CVBS: PAL: 960H 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
Gain Control	Auto;Manual
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 2.1 W (12 VDC, LED 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
Anti-corrosion Level	Basic Protection

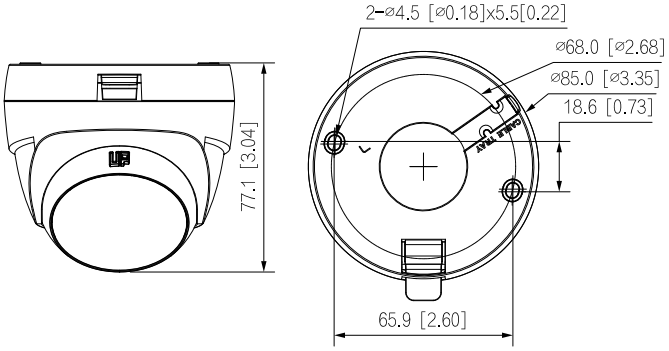
Structure

Casing Material	Plastic
Product Dimensions	Φ85.0 mm × 77.1 mm (Φ3.35" × 3.04")
Net Weight	0.11 kg (0.24 lb)
Gross Weight	0.12 kg (0.26 lb)
Installation	Wall mount; ceiling mount

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

Dimensions (mm[inch])



Accessories

Optional:

PFA12C
Plastic Junction Box

PFM321D
12V 1A Power Adapter

PFM800-E
Passive HDCVI Balun

PFM904
Integrated Mount Tester

Junction Mount	Wall Mount