DH-HAC-HDW1509TL(-A)-LED

5MP Full-color Starlight HDCVI Eyeball Camera

- Full-color starlight
- 20 m LED distance
- Max. 20fps@5MP
- CVI/CVBS/AHD/TVI switchable
- Built-in mic (-A)
- 3.6 mm fixed lens (2.8 mm optional)
- IP67, 12V±30% DC

System Overview

Experience 5MP full HD color video and the simplicity of reusing existing coaxial infrastructure with HDCVI. The full-color starlight HDCVI camera presents a high quality color image with rich details even in total darkness conditions. It offers various fixed lens models with a multi-language OSD and HD/SD switchable output. It adopts two powerful warm white LED illuminators, covering an effective range up to 20 m (65.61 ft). The LEDs switch on automatically in darkness to capture detail-packed full-color images 24/7, ensuring anthentic identificaiton of objects. It is an ideal choice for applications such as schools, retail centers and parking lots.

Functions

Full-color Starlight

The camera adopts F1.2 large aperture lens and 1/2.7" high performance sensor. With higher amount of absorbed light and advanced image processing algorithm, the camera presents an impressive lowlight performance with an exceptional balance between noise reduction and the blur of moving object.

Warm Supplemental lights

With one warm supplemental LED lights, the camera is able to provide a coloful and vivid image even in total dark. By default, the camera is set to smart light mode, in which the camera can automatically adjust the exposure time and light sensitivity simultaneously to avoid overexposureing of the objects in the image center. Also, the sensitivity and intensity of the LED lights can be remotely controlled by OSD menu.

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.

*This function is available for select models.

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 HCVR, such as sending control signal or triggering alarm.

*Audio input is available for some models of HDCVI cameras.

Long Distance Transmission

HDCVI technology guarantees long-distance and real-time transmission 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.

Multiple-formats

The camera supports multiple video formats including HDCVI, CVBS and other two common HD analog formats in the market. The four formats can be switched over through OSD menu or by PFM820(UTC controller). This feature makes the camera to be compatible with most end users' existing HD/SD DVRs.

Protection

The camera's outstanding reliability is unsurpassed due to its rugged design. The camera is protected against water and dust with IP67 ranking, making it suitable for indoor or outdoor environments. With working temperature range of-40 °C to +60 °C (-40 °F to +140 °F), the camera is designed for extreme temperature environments. Supporting ±30% input voltage tolerance, this camera suits even the mostunstable power supply conditions. Its 4KV lightning rating provides protection against the camera and its structure from the effects of lightning.

Technical Specification

Camera

Image Sensor	1/2.7 inch CMOS
Effective Pixels	2592 (H) × 1944 (V), 5MP
Scanning System	Progressive
Electronic Shutter Speed	PAL: 1/25s–1/100000s NTSC: 1/30s–1/100000s
S/N Ratio	>65dB
Minimum Illumination	0.005Lux/F1.2, 0Lux White Light on
Fill Light (White Light) Distance	Distance up to 20 m (65.61 ft)
Fill Light On/Off Control	Auto; manual
Fill Light Number	1
Pan/Tilt/Rotation Range	Pan: 0°–360° Tilt: 0°–78° Rotation: 0°–360°

Lens

Lens Type	Fixed-focal
Mount Type	M12
Focal Length	2.8 mm; 3.6 mm
Max. Aperture	F1.2
Field of View	2.8 mm: 129° × 98° × 71° (diagonal × horizontal × vertical) 3.6 mm: 111° × 83° × 56° (diagonal × horizontal × vertical)
Iris Type	Fixed iris
Close Focus Distance	2.8 mm: 1.6 m (5.25 ft) 3.6 mm: 2.1 m (6.89 ft)

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	3.6 mm	80.0 m (262.5 ft)	32.0 m (105.0 ft)	16.0 m (52.5 ft)	8.0 m (26.2 ft)

Video

Frame Rate	CVI: PAL: 5M@20fps, 4M@25fps, 1080P@25fps; NTSC: 5M@20fps, 4M@30fps, 1080P@30fps AHD: PAL: 5M@20fps, 4M@25fps; NTSC: 5M@20fps, 4M@30fps TVI: PAL: 5M@20fps, 4M@25fps; NTSC: 5M@20fps, 4M@30fps CVBS: PAL: 960H; NTSC: 960H
Resolution	5M (2592 × 1944); 4M (2560 × 1440); 1080P (1920 × 1080); 960H (704 × 576/704 × 480);
BLC	BLC/HLC/DWDR
WDR	DWDR
White Balance	Auto; manual
Gain Control	Auto; manual
Noise Reduction	2D NR
Smart Light	Yes
Mirror	Off/On
Privacy Masking	Off/On (8 area, rectangle)

Certifications

Certifications	CE (EN55032, EN55024, EN50130-4,EN60950-1) FCC (CFR 47 FCC Part 15 subpartB, ANSI C63.4-2014) UL (UL60950-1+CAN/CSA C22.2 No.60950-1)

Port

Video Output	Video output choices of CVI/TVI/AHD/CVBS by one BNC port

Audio Interface

Audio Input	Built-in mic (-A)

Power

Power Supply	12V ±30% DC
Power Consumption	Max 3.0W (12V DC, White Light on)

Environment

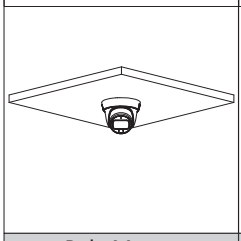
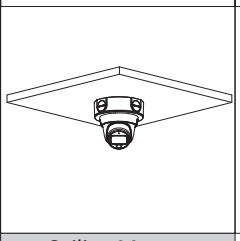
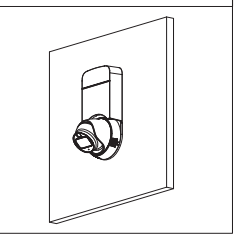
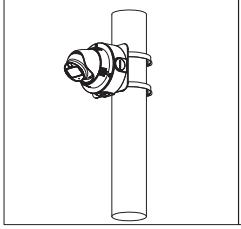
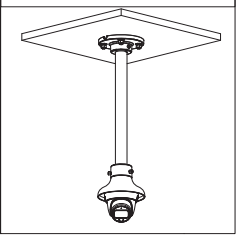
Operating Temperature	-40°C to +60°C (-40°F to 140°F); <95% (non-condensation)
Storage Temperature	-40°C to +60°C (-40°F to 140°F); <95% (non-condensation)
Protection Grade	IP67

Structure

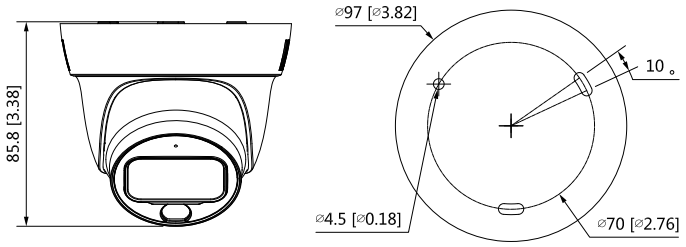
Casing	Inner core: metal + plastic Cover: plastic Pedestal: plastic
Camera Dimensions	ϕ97 mm × 85.8 mm (ϕ3.82" × 3.38")
Net Weight	0.22 Kg (0.49 lb)
Gross Weight	0.28 Kg (0.62 lb)

Ordering Information

Type	Part Number	Description
5MP Camera	DH-HAC-HDW1509TLP-A-LED	5MP Full-color Starlight HDCVI Eyeball Camera
	DH-HAC-HDW1509TLN-A-LED	
	DH-HAC-HDW1509TLP-LED	
	DH-HAC-HDW1509TLN-LED	
Accessories	PFA130-E	Water-proof Junction Box
	PFA12A	Plastic Junction Box
	PFA130-E + PFA152-E	Water-proof Junction Box + Pole Mount Bracket
	PFA106 + PFB220C	Adapter Plate of Mini Dome & Eyeball Camera + Ceiling Mount Bracket of Mini Dome & Eyeball Camera
	PFM820 (Only 1080P and below are available)	UTC Controller
	PFM800-E	Passive HDCVI Balun
	PFM800-4K	Passive Video Balun
	PFM907	Integrated Mount Tester
	PFM320D	12V 2A DC power adapter

Ceiling Mount	Junction Mount	Wall Mount
	PFA130-E	PFA12A
		
Pole Mount	**Ceiling Mount**	
PFA130-E+PFA152-E	PFA106+PFB220C	
		

Dimensions (mm[inch])



Accessories

Optional:

PFA130-E
Water-proof Junction Box

PFA12A
Plastic Junction Box

PFA130-E + PFA152-E
Water-proof Junction Box + Pole Mount Bracket

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

PFM820
UTC Controller

PFM800-E
Passive HDCVI Balun

PFM800-4K
Passive Video Balun

PFM907
Integrated Mount Tester

PFM320D
12V 2A DC power adapter

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