DH-HAC-HDW1509TLQ(-A)-LED
5MP Full-color HDCVI Quick-to-install Eyeball Camera

Full-color

* The parameters and datasheets below can only be applied to1509-S2 series.
* In order to use the 5MP 16:9 HDCVI camera, the firmware of XVR must be upgraded to V4.001.0000001.0.R.200908 or later version.

· Max 25 fps@5MP (16:9 video output)

· 120dB true WDR, 3D NR

· 24/7 color imaging

· 20 m illumination distance

· CVI/CVBS/AHD/TVI switchable

· Built-in mic (-A)

· 3.6 mm fixed lens (2.8 mm optional)

· IP67, 12 V DC

· Quick-to-install eyeball saves installation time

System Overview

Lite Series is suitable for users who requires high quality monitoring products at a reasonable price. It is cost effective and offers high performance, which makes it an ideal choice for residential and small medium business applications. This series offers an option of a wide range of technologies such as Full-color and Starlight, providing various solutions for different scenarios.

Functions

Full-color

Full-color camera adopts large aperture lens and high performance sensor. With higher amount of absorbed light and advanced image processing algorithm, the camera provides 24/7 color monitoring that collects clear and vivid information,significantly increasing probability of gathering valid human, vehicle, and event evidence that can be used for further intelligent analysis.

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.

Wide Dynamic Range

With advanced Wide Dynamic Range (WDR) technology, Dahua HDCVI camera provides clear details in the environment of strong brightness contrast. The bright and dark area can get clear video even in high brightness environment or with backlight shadow.

Super Adapt

Embedded with intelligent algorithm, for changing external environment, camera can automatically adjust parameters to present the optimal image, and it solves the trouble of configuration.

Advanced 3D NR

3D NR is noise reduction technology that detects and eliminates random noises by comparing two sequential frames. Dahua's advanced 3D NR technology allows remarkable noise reduction with little impact to sharpness, especially under limited lighting condition. Besides, the advanced 3D NR effectively decreases the band width and saves the storage space.

Warm Supplemental Lights

With warm supplemental LED lights, the camera is able to provide a coloful and vivid image even in total darkness. 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.

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.

Protection (IP67, Wide voltage)

IP67: The camera passes a series of strict test on dust and soak. It has dust-proof function, and the enclosure can works normal after soaking in 1 m deep water for 30 minutes.
Wide voltage: The camera allows ±30% (for some power supplies) input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.
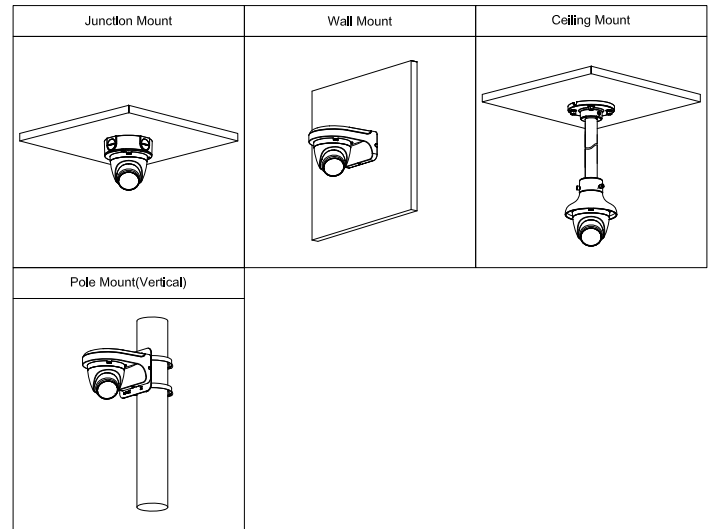
Easy Installation

HDCVI quick-to-install eyeball adopts quick-to-install pedestal, which can achieve easier installation than conventional eyeball. Quick-to-install camera reduces time and labor costs.
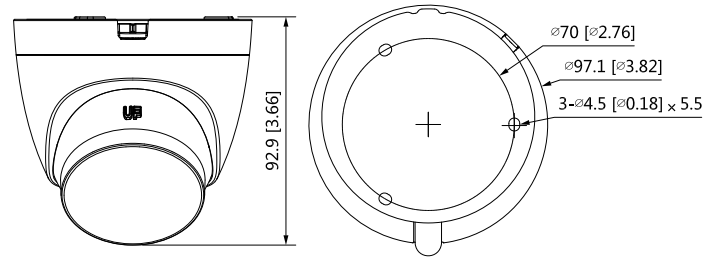
Technical Specification

Camera

Image Sensor	5MP CMOS
Max. Resolution	2880 (H) × 1620 (V)
Pixel	5MP
Scanning System	Progressive
Electronic Shutter Speed	PAL:1/3 s–1/100,000 s NTSC:1/4 s–1/100,000 s
S/N Ratio	> 65 dB
Min. Illumination	0.001 Lux/F1.0, 0 Lux warm light on
Illumination Distance	20 m (65.61 ft)
Illuminator On/Off Control	Auto; manual
Illuminator Number	1
Pan/Tilt/Rotation Range	Pan: 0°–360° Tilt: 0°–78° Rotation: 0°–360°

Lens

Lens Type	Fixed lens
Mount Type	M12
Focal Length	2.8 mm; 3.6 mm
Max. Aperture	F1.0
Field of View	2.8 mm: H: 112°; V: 57°; D: 132° 3.6 mm: H: 88; V: 46°; D: 104°
Iris Type	Fixed iris
Close Focus Distance	2.8 mm: 1.6 m (5.25 ft); 3.6 mm: 2.3 m (7.5 ft)

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	67.4 m (212.3 ft)	27.0 m (88.6 ft)	13.5 m (44.3 ft)	6.7 m (22.0 ft)
	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@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)
BLC	BLC/HLC/WDR/HLC-Pro
WDR	120 dB
White Balance	Auto; Area WB

Gain Control	Auto; manual
Noise Reduction	3D NR
Smart Light	Yes
Mirror	Off/On
Privacy Masking	Off/On (8 areas, 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 Input	One channel built-in mic (-A)

Power

Power Supply	12 V ±30% DC
Power Consumption	Max 4.4 W (12 V DC, warm light on)

Environment

Operating Temperature	−40 °C to +55 °C (−40 °F to +131 °F); < 95% (non-condensation)
Storage Temperature	−40 °C to +55 °C (−40 °F to +131 °F); < 95% (non-condensation)
Protection Grade	IP67

Structure

Casing	Metal inner core + plastic cover + plastic pedestal
Camera Dimensions	φ97.1 mm × 91.4 mm (φ3.82" × 3.6")
Net Weight	0.24 Kg (0.53 lb)
Gross Weight	0.37 Kg (0.82 lb)

Ordering Information

Type	Model	Description
5MP Camera	DH-HAC-HDW1509TLQP-LED	5MP Full-color HDCVI Quick-to-install Eyeball Camera, PAL
	DH-HAC-HDW1509TLQN-LED	5MP Full-color HDCVI Quick-to-install Eyeball Camera, NTSC
	DH-HAC-HDW1509TLQP-A-LED	5MP Full-color HDCVI Quick-to-install Eyeball Camera, PAL
	DH-HAC-HDW1509TLQN-A-LED	5MP Full-color HDCVI Quick-to-install Eyeball Camera, NTSC
Accessories (Optional)	PFA13G	Junction Box
	PFA130-E	Water-proof Junction Box
	PFB205W	Wall Mount Bracket
	PFA109+PFB220C	Mount Adapter + Ceiling Mount Bracket of Mini Dome & Eyeball Camera
	PFA152-E+PFB205W	Pole Mount Bracket + Wall Mount Bracket
	PFM800-4K	Passive HDCVI Balun
	PFM321D	12V 1A Power Adapter
	PFM904	Integrated Mount Tester

Accessories

Optional:

PFA13G
Junction box

PFA130-E
Water-proof Junction Box

PFB205W
Wall Mount Bracket

PFA109+PFB220C
Mount Adapter + Ceiling Mount Bracket of Mini Dome & Eyeball Camera

PFA152-E+PFB205W
Pole Mount Bracket + Wall Mount Bracket

PFM800-4K
Passive HDCVI Balun

PFM321D
12 V 1A Power Adapter

PFM904
Integrated Mount Tester

Junction Mount	Wall Mount	Ceiling Mount

Pole Mount(Vertical)

Dimensions (mm[inch])

92.9 [3.66]

∅70 [∅2.76]
∅97.1 [∅3.82]
3-∅4.5 [∅0.18] × 5.5

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