

# DH-HAC-HDW1509T-Z-A-LED

5MP Full-Color HDCVI Motorized Vari-focal Eyeball Camera





- \*The parameters and datasheets below can only be applied to 1509-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)
- · 120 dB true WDR, 3DNR
- · 24/7 color imaging
- · 40 m illumination distance
- · CVI/CVBS/AHD/TVI switchable
- · Built-in mic
- · Auto focus, 2.7 mm-13.5 mm motorized lens
- · IP67, 12 V±30% DC













# 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 oftechnologies 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 processingand 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 e nvironment, camera can automatically adjust parameters to present the optimal image, and it solves the trouble of configuration.

#### **Advanced 3DNR**

3DNR is noise reduction technology that detects and eliminates random noises by comparing two sequential frames. Dahua's advanced 3DNR technology allows remarkable noise reduction with little impact to sharpness, especially under limited lighting condition. Besides, the advanced 3DNR 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

# **Long Distance Transmission**

HDCVI technology guarantees real-time transmission at long distance without any loss. It supports up to 700m transmission for 2MP/5MP/8MP HD video via coaxial cable, and up to 300m via UTP cable.

\*Actual results verified by real-scene testing in Dahua's test laboratory.

## 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.

# Lite Series | DH-HAC-HDW1509T-Z-A-LED

Technical Specification					White Balance	Auto; Area WB	
Camera						Gain Control	Auto; manual
Image Sensor		5MP CMOS				Noise Reduction	3D NR
Max. Resolution		2880 (H) × 1620 (V)				Smart Light	Yes
Pixel		5MP				Mirror	Off/On
Scanning System		Progressive				Privacy Masking	Off/On (8 area, rectangle)
Electronic Shutter Speed		PAL: 1/3 s-1/100,000 s NTSC: 1/4 s-1/100,000 s				Certifications	
S/N Ratio		> 65 dB				Certifications	CE (EN55032, EN55024, EN50130-4,EN60950-1) FCC (CFR 47 FCC Part 15 subpartB, ANSI C63.4-2014)
Min. Illumination		0.001 Lux/F1.2, 0 Lux White Light on				UL (UL60950-1+CAN/CSA C22.2 No.60950-1)	
Illumination Distance		40 m (132.1 ft)				Port	
Illuminator On/Off Control		Auto; manua	al			Video Output	Video output choices of CVI/TVI/AHD/CVBS by one BNC port
Illuminator Number		2				Audio Input	One channel built-in mic
Pan/Tilt/Rotation Range		Pan: 0°-360°	,			Power	
		Tilt: 0°–78° Rotation: 0°–360°				Power Supply	12 V ±30% DC
Lens						Power Consumption	Max 7.92 W (12 V DC, warm light on)
Lens Type		Motorized Vari-focal				Environment	
Mount Type		ф14				Operating Temperature	$-30~^{\circ}\text{C}$ to +60 $^{\circ}\text{C}$ (–22 $^{\circ}\text{F}$ to 140 $^{\circ}\text{F}$ ); < 95% (noncondensation)
Focal Length  Max. Aperture		2.7 mm-13.5	5 mm			Storage Temperature	$-30~^{\circ}\text{C}$ to +60 $^{\circ}\text{C}$ (–22 $^{\circ}\text{F}$ to 140 $^{\circ}\text{F}$ ); < 95% (noncondensation)
Max. Aperture		H: 35°-112°;				Protection Grade	IP67
Field of View		V: 19°-58°; D: 40-137°				Structure	
Iris Type		Fixed iris				Casing	Metal throughout the whole casing
						Camera Dimensions	$\phi$ 122 mm × 104.8 mm ( $\phi$ 4.8" × 4.13")
Close Focus Distance		1.5 m (4.9 ft)	)			Net Weight	0.58 kg (1.28 lb)
DORI Distance	Lens	Detect	Observe	Recognize	Identify	Gross Weight	0.75 kg (1.65 lb)
	2.7 mm	65.2 m (213.9 ft)	26 m ( 85.3 ft)	13 m (42.7 ft)	6.5 m (21.3 ft)		
	13.5 mm	186.6 m (612.2 ft)	74.6 m (244.8 ft)	37.3 m (122.4 ft)	18.6 m (61 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

# Lite Series | DH-HAC-HDW1509T-Z-A-LED

Ordering Information						
Туре	Model	Description				
5MP Camera	DH-HAC-HDW1509TP- Z-A-LED	5MP Full-Color HDCVI Motorized Vari-focal Eyeball Camera, PAL				
SIMP Camera	DH-HAC-HDW1509TN- Z-A-LED	5MP Full-Color HDCVI Motorized Vari-focal Eyeball Camera, NTSC				
	PFA137	Junction box				
	PFA130-E	Water-proof Junction Box				
	PFB205W	Wall Mount Bracket				
Accessories (Optional)	PFA106+PFB220C	Adapter Plate of Mini Dome & Eyeball Camera + Ceiling Mount Bracket of Mini Dome & Eyeball Camera				
(Optional)	PFA152-E+PFB205W	Pole Mount Bracket + Wall Mount Bracket				
	PFM800-4K	Passive HDCVI Balun				
	PFM321D	12V 1A Power Adapter				
	PFM904	Integrated Mount Tester				

Junction Mount	Wa <b>ll</b> Mount	Ceiling Mount
Pole Mount(Vertical)		1

# Accessories

# **Optional:**



PFA137 Junction box



PFA130-E Water-proof Junction Box



PFB205W Wall Mount Bracket



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



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



PFM800-4K Passive HDCVI Balun





PFM904 Integrated Mount Tester

