

DH-HAC-HDW1801T-IL-A

4K Smart Dual Light HDCVI Fixed-focal Eyeball Camera



Series Overview

The Lite Series is a great choice for consumers looking for high quality monitoring products at a reasonable price. Its low cost and high performance make it ideal for residential areas and SMB solutions. This series is equipped with a wide range of technologies, such as full-color and starlight, providing various solutions for different scenarios.

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.

Smart Light+

Equipped with advanced LEDs and beam processing technology, the camera effectively reduces interference of stray light, ensuring concentrated illumination within the lens's field of view. This allows the camera to easily produce clear images that reveal the fine details of targets even in low light conditions.

Smart Area Lighting

Automatically adjusts the intensity of the brightness and exposure for the left and right areas in the video based on the proportion and position of the targets to reveal more details in the image.

- * The parameters and datasheets below can only be applied to 1801-IL-S3 series.
- * In order to use the Smart Dual Light HDCVI camera, the firmware of XVR must be upgraded to V4.001.0000004.1.R.220323 or later version.
- * In order to use the TVI Audio, the firmware of HDCVI camera must be upgraded to V1.001.0000002.0.R.20251204 or later version.
- Max. 15 fps@4K.
- Smart Dual Light.
- 40 m illumination distance.
- Super Adapt.
- Built-in Mic.
- 3.6 mm fixed lens (2.8 mm optional).
- CVI/CVBS/AHD/TVI switchable.
- IP67, 12 VDC.



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.

Super Adapt

With its intelligent algorithm, the camera automatically adjusts its parameters to provide optimal performance and vivid images.

Advanced 3DNR

Dahua's advanced 3DNR technology reduces image noise with little to no impact on image sharpness, especially in poor lighting conditions. It detects the noise, and compares the sequential frames to effectively reduce the noise. It also makes efficient use of bandwidth, saving on storage space.

Technical Specification

Camera	
Image Sensor	4K CMOS
Max. Resolution	3840 (H) × 2160 (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	0.01 lux@F2.0 (Color, 30 IRE) 0.001 lux@F2.0 (B/W, 30 IRE) 0 lux (Illuminator on)
S/N Ratio	>65 dB
Illumination Distance	IR: 40 m (131.23 ft); Warm Light: 40 m (131.23 ft)
Illuminator On/Off Control	Auto/Manual
Illuminator Number	4 (Multi-core 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: 105.5°; V: 56.5°; D: 125.3° 3.6 mm: H: 86.8°; V: 44.6°; D: 104.5°			
Iris Control		Fixed			
Close Focus Distance		2.8 mm: 1.3 m (4.27 ft) 3.6 mm: 2.1 m (6.89 ft)			
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	88.0 m (288.71 ft)	35.2 m (115.49 ft)	17.6 m (57.74 ft)	8.8 m (28.87 ft)
	3.6 mm	113.6 m (372.70 ft)	45.4 m (148.95 ft)	22.7 m (74.48 ft)	11.4 m (37.40 ft)
	*DORI (Detect, Observe, Recognize, Identify) is a standard system (EN-62676-4) for defining the ability of a person viewing the video to distinguish persons or objects within a covered area. The numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and commissioning manual/project design tool.				

Video	
Video Frame Rate	CVI: PAL: 4K@15 fps; NTSC: 4K@15 fps; AHD: PAL: 4K@15 fps; NTSC: 4K@15 fps; TVI: PAL: 4K@15 fps; NTSC: 4K@15 fps; CVBS: PAL: 960H NTSC: 960H
Resolution	4K (3840 × 2160); 960H (960 × 576/960 × 480)

Day/Night	Auto(ICR)/Color/B/W
BLC	BLC; HLC; WDR
WDR	WDR
White Balance	Auto
Gain Control	Auto
Noise Reduction	3D NR
Illumination Mode	Smart IR&WL(CVI,TVI); WL Mode; IR Mode
Mirror	Yes

Certification	
Certifications	CE-LVD: EN 62368-1; CE-EMC: EN 55032; EN 55035;

Audio	
Built-in Mic	Yes
Camera Audio	CVI; TVI
Pick-up Distance	8 m (26.25 ft)

Port	
Video Output	Video output choices of CVI/TVI/AHD/CVBS by one BNC port (DIP Switch)

Power	
Power Supply	12 VDC (±30%)
Power Consumption	Max 7.2 W (12 VDC, IR 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
Protection	IP67
Anti-corrosion Level	Basic Protection *The products are designed for general use and are applicable even in areas with no specific requirements for anti-corrosion protection.

Structure	
Casing Material	Metal
Product Dimensions	Φ106.0 mm × 96.9 mm (Φ4.17" × 3.81")
Net Weight	0.48 kg (1.06 lb)
Gross Weight	0.62 kg (1.37 lb)
Installation	Wall mount; ceiling mount; vertical pole mount

Ordering Information

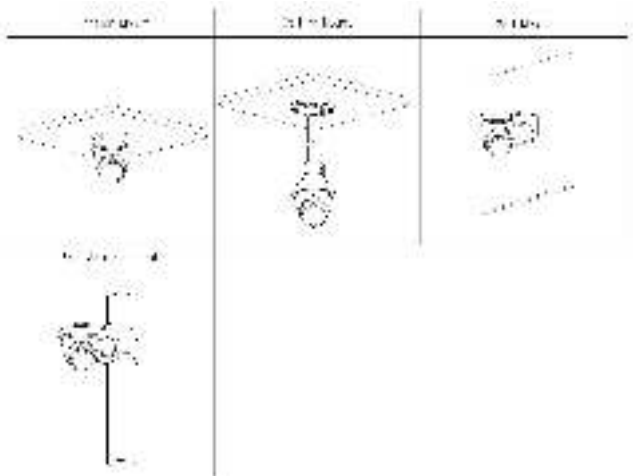
Type	Model	Description
HDCVI CAMERA	DH-HAC-HDW1801TN-IL-A	4K Smart Dual Light HDCVI Fixed-focal Eyeball Camera,NTSC
	DH-HAC-HDW1801TP-IL-A	4K Smart Dual Light HDCVI Fixed-focal Eyeball Camera,PAL
Accessories (Optional)	DH-PFB220C	Ceiling Mount Bracket
	DH-PFA106	Mount Adapter
	DH-PFB305W	Wall Mount Bracket
	DH-PFA151	Corner Mount Bracket
	DH-PFA150	Pole Mount Bracket
	DH-PFA156	Pole Mount Bracket
	DH-PFB2204W	Wall Mount Bracket
	DH-PFA139	Junction Box
	DH-PFM800-4K	1 Channel Passive HDCVI Balun
	DH-PFM321-EN	DC12V1A power adapter
	DH-PFM325D-1210EN	DC12V 1A Power Adapter
	DH-PFM320D-EN	DC12V2A power adapter
	PFM904	Integrated Mount Tester

Accessories

Optional:

		
DH-PFB220C Ceiling Mount Bracket	DH-PFA106 Mount Adapter	DH-PFB305W Wall Mount Bracket
		
DH-PFA151 Corner Mount Bracket	DH-PFA150 Pole Mount Bracket	DH-PFA156 Pole Mount Bracket
		
DH-PFB2204W Wall Mount Bracket	DH-PFA139 Junction Box	DH-PFM800-4K 1 Channel Passive HDCVI Balun

Optional:

		
DH-PFM321-EN DC12V1A power adapter	DH-PFM325D-1210EN DC12V 1A Power Adapter	DH-PFM320D-EN DC12V2A power adapter
		
PFM904 Integrated Mount Tester		
		

Dimensions (mm[inch])