DH-HAC-HFW1801R-Z-IL-A

4K Smart Dual Light HDCVI Motorized Vari-Focal Bullet Camera



* 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.

- Starlight, 3D NR.
- Max 15 fps@4K.
- Smart Dual Light.
- Smart Zoom Lighting.
- 80 m illumination distance.
- Built-in Mic.
- 2.7–13.5 mm motorized lens.
- CVI/CVBS/AHD/TVI switchable.
- IP67, 12 VDC.



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

Built-in Mic

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.

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 Zoom Lighting

Smart zoom lighting automatically adjusts the brightness of the illuminator based on the zoom level, ensuring clear, stable images in low-light conditions across all focal lengths. Smart brightness control reduces power consumption and saves energy.

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.

Protection (IP67, Wide Voltage)

IP67: The camera passed a series of rigorous dust and immersion tests. Its enclosure is both dust-proof and waterproof, and can function normally while being immersed in 1 m deep water for up to 30 minutes.

Wide voltage: The camera has ±30% input voltage tolerance (for some power supplies) and a wide voltage range, making it suitable for a variety of outdoor scenarios.

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.

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@F1.6 (Color, 30 IRE) 0.001 lux@F1.6 (B/W, 30 IRE) 0 lux (Illuminator on)
S/N Ratio	>65 dB
Illumination Distance	IR: 80 m (262.47 ft)；Warm Light: 60 m (196.85 ft)
Illuminator On/Off Control	Auto/Manual
Illuminator Number	4 (Multi-core light)
Angle Adjustment	Pan: 0°–360° Tilt: 0°–90° Rotation: 0°–360°

Lens

Lens Type	Motorized vari-focal				
Auto Focus	No				
Lens Mount	ϕ14				
Focal Length	2.7 mm–13.5 mm				
Max. Aperture	F1.6				
Field of View	H: 32.7°–111.8°; V: 18.4°–58.3°; D: 37.5°–135.2°				
Iris Control	Fixed				
Close Focus Distance	1.2 m (3.94 ft)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	W	87.2 m (286.09 ft)	34.9 m (114.50 ft)	17.4 m (57.09 ft)	8.7 m (28.54 ft)
	T	269.3 m (883.53 ft)	107.7 m (353.35 ft)	53.9 m (176.84 ft)	26.9 m (88.25 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				

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@50 fps NTSC: 960H@60 fps
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/Manual
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 7.4 W (12 VDC, IR on)

Environment

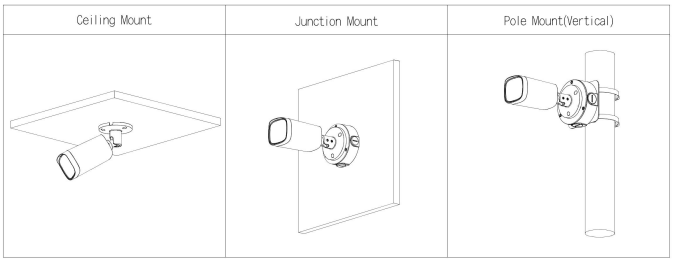
Operating Temperature	–30 °C to +60 °C (–22 °F to +140 °F)
Operating Humidity	<95% (RH), non-condensing
Storage Temperature	–30 °C to +60 °C (–22 °F to +140 °F)
Storage Humidity	<95% (RH), non-condensing
Protection	IP67
Anti-corrosion Level	Basic Protection *The products are designed for general use and are applicable even in areas with no specific requirements for anti-corrosion protection.

Structure

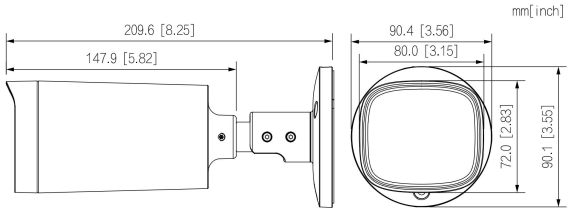
Casing Material	Metal
Product Dimensions	209.9 mm × 90.4 mm × 90.4 mm (8.26" × 3.56" × 3.56") (L × W × H)
Net Weight	0.55 kg (1.21 lb)
Gross Weight	0.70 kg (1.54 lb)
Installation	Wall mount; ceiling mount; vertical pole mount

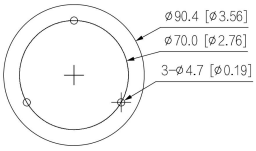
Ordering Information

Type	Model	Description
HDCVI CAMERA	DH-HAC-HFW1801RN-Z-IL-A	4K Smart Dual Light HDCVI Motorized Vari-Focal Bullet Camera,NTSC
	DH-HAC-HFW1801RP-Z-IL-A	4K Smart Dual Light HDCVI Motorized Vari-Focal Bullet Camera,PAL
Accessories (Optional)	DH-PFA151	Corner Mount Bracket
	DH-PFA130-E	Water-proof Junction Box
	G3416GW	G3/4" Water Joint
	DH-PFA157	Pole Mount Bracket
	DH-PFA135	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



Dimensions (mm[inch])





Accessories

Optional:



DH-PFA151
Corner Mount Bracket



DH-PFA130-E
Water-proof Junction Box



G3416GW
G3/4" Water Joint



DH-PFA157
Pole Mount Bracket



DH-PFA135
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

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