

DH-HAC-HDW1800M

4K Real-time HDCVI IR Eyeball Camera



- Max. 4K resolution, real-time video transmission
- CVI/CVBS/AHD/TVI switchable
- Fixed lens (2.8mm; 3.6mm; 6mm optional)
- Max. IR length 30m, Smart IR
- IP67, 12V±30%DC



System Overview

Experience 4K video surveillance with the simplicity of reusing existing coaxial infrastructure. The 4K HDCVI camera adopts a powerful Dahua ISP and advanced 1/2.7" CMOS sensor, which provides superior high quality images. In addition, the camera features broadcastquality audio to provide enhanced supplementary evidence collection. Ultra-high definition and a complete set of features makes the 4K HDCVI camera an ideal choice for mid to large-size businesses and projects where both highly reliable surveillance and construction flexibility are demanded.

Functions

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 4K and 4MP HD video via coaxial cable, and up to 300m 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. This feature makes the camera compatible with not only XVRs, but also most existing HD/ SD DVRs. *

*Use OSD menu to switch HDCVI to other video formats. Use PFM820 UTC Controller to switch CVBS to HDCVI video format.

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. Supporting ±30% input voltage tolerance, this camera suits even the most unstable power supply conditions. Its 4KV lightning rating provides protection against the camera and its structure from the effects of lightning.

Smart IR

The camera is designed with microcrystalline LED IR illumination for best lowlight performance. Smart IR is a technology to ensure brightness uniformity in B/W image under low illumination. Dahua's unique Smart IR adjusts to the intensity of camera's infrared LEDs to compensate for the distance of an object, and prevents IR LEDs from overexposing images as the object come closer to the camera.

4K Real-time Image Display

Used together with 4K Real-time XVR, the camera can output 4K real-time video stream with clear details and no lag or smear.

Technical Specification							BLC	BLC/HLC/WDR	
Camera									
Image Sensor		1/2.7 inch CMOS						WDR	DWDR
Effective Pixels		3840 (H)× 2160 (V), 4K						White Balance	Auto; manual
Scanning System		Progressive						Gain Control	Auto; manual
Electronic Shutter Speed		PAL: 1/25s–1/100000s NTSC: 1/30s–1/100000s						Noise Reduction	2D NR
S/N Ratio		>65dB						Smart IR	Yes
Minimum Illumination		0.03Lux/F2.0, 30IRE, 0Lux IR on						Mirror	Off/On
Fill Light Working Distance		30 m (98.4 ft)						Privacy Masking	Off/On (8 area, rectangle)
IR On/Off Control		Auto; manual						Certifications	
IR LED Number		12						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)
Pan/Tilt/Rotation Range		Pan: 0°–360° Tilt: 0°–78° Rotation: 0°–360°						Port	
								Video Output	Video output choices of CVI/TVI/AHD/CVBS by one BNC port
Lens									
Lens Type		Fixed-focal						Power	
Mount Type		M12						Power Supply	12V ±30% DC
Focal Length		2.8 mm; 3.6 mm; 6 mm						Power Consumption	Max 4.3W (12V DC, IR on)
Max. Aperture		F2.0						Environment	
Angle of View		2.8 mm: 125° x 105° x 56° (diagonal x horizontal x vertical) 3.6 mm: 104° x 87° x 47° (diagonal x horizontal x vertical) 6 mm: 62.4° x54.7° x31.3°(diagonal x horizontal x vertical)						Operating Temperature	-40°C to +60°C (-40°F to +140°F); <95% (non-condensation)
Iris Type		Fixed iris						Storage Temperature	-40°C to +60°C (-40°F to +140°F); <95% (non-condensation)
Close Focus Distance		2.8 mm: 1.0 m (3.3 ft) 3.6 mm: 1.9 m (6.2 ft) 6 mm: 3.6 m (11.8 ft)						Protection Grade	IP67
DORI Distance	Lens	Detect	Observe	Recognize	Identify		Structure		
	2.8mm	74.7 m (245.1 ft)	29.9 m (98.1 ft)	14.9 m (48.9ft)	7.5 m (24.6 ft)		Casing	Metal throughout the whole casing	
	3.6mm	106.7 m (350.1 ft)	42.7 m (140.1 ft)	21.3 m (69.9 ft)	10.7 m (35.1 ft)		Camera Dimensions	φ93.4mm×79.4mm (φ3.68"×3.13")	
	6mm	160m (524.9 ft)	64 m (210.0ft)	32 m (105.0ft)	16 m (52.5ft)		Net Weight	0.27 Kg (0.60lb)	
	*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.						Gross Weight	0.35 Kg (0.77lb)	
Video									
Frame Rate		CVI: 4K@25/30fps; 4K@15fps; 5M@20fps; 4M@25fps/30fps; AHD: 4K@15fps; TVI: 4K@15fps; CVBS: 960H							
Resolution		4K (3840 × 2160); 5M (2592 × 1944); 4M (2560 × 1440); 960H (960 × 576/960 × 480)							
Day/Night		Auto switch by ICR							

Ordering Information		
Type	Part Number	Description
4K Camera	DH-HAC-HDW1800MP 2.8mm	4K HDCVI IR Eyeball Camera
	DH-HAC-HDW1800MP 3.6mm	
	DH-HAC-HDW1800MP 6mm	
	DH-HAC-HDW1800MN 2.8mm	
	DH-HAC-HDW1800MN 3.6mm	
	DH-HAC-HDW1800MN 6mm	
Accessories	PFA13A-E	Water-proof Junction Box
	PFB204W+PFA152-E	Water-proof Wall Mount Bracket+Pole Mount Bracket
	PFB204W	Water-proof Wall Mount Bracket
	PFA106+PFB220C	Adapter Plate + Ceiling Mount Bracket
	PFM800-4K	Passive Video Balun
	PFM800B-4K	Passive Video Balun
	PFM320D Series	12V 2A Power Adapter
	PFM321D Series	12V 1A Power Adapter
	PFM320D-015	DC12V1.5A Power Adapter

Accessories

Optional:



PFA13A-E
Water-proof Junction Box



PFB204W+PFA152-E
Water-proof Wall Mount Bracket+Pole Mount Bracket



PFB204W
Water-proof Wall Mount Bracket



PFA106+PFB220C
Adapter Plate + Ceiling Mount Bracket



PFM800-4K
Passive Video Balun



PFM800B-4K
Passive Video Balun



PFM320D Series
12V 2A Power Adapter



PFM321D Series
12V 2A Power Adapter



PFM320D-015
DC12V1.5A Power Adapter

Junction Mount	Wall Mount
PFA13A-E	PFB204W
Pole Mount	Ceiling Mount
PFB204W+PFA152-E	PFA106+PFB220C

