DH-HAC-HDW1800RP

4K HDCVI IR Eyeball Camera

- Max. 4K resolution
- CVI/CVBS/AHD/TVI switchable
- Fixed lens (2.8 mm; 3.6 mm optional)
- Max. IR length 20 m, Smart IR
- IP50, 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 HCVR, 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. With working temperature range of-40°C to +55°C (-40°F to +131°F), the camera is desinged for extreme temperature 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.

Technical Specification

Camera

Image Sensor	1/2.7 inch CMOS
Effective Pixels	3840 (H) × 2160 (V), 4K
Scanning System	Progressive
Electronic Shutter Speed	PAL: 1/25s–1/100000s NTSC: 1/30s–1/100000s
S/N Ratio	>65dB
Minimum Illumination	0.03Lux/F2.0, 30IRE, 0Lux IR on
Fill Light Working Distance	20 m (65.2 ft)
IR On/Off Control	Auto; manual
IR LED Number	12
Pan/Tilt/Rotation Range	Pan: 0°–360° Tilt: 0°–78° Rotation: 0°–360°

Lens

Lens Type	Fixed-focal
Mount Type	M12
Focal Length	2.8mm; 3.6mm
Max. Aperture	F2.0
Angle of View	2.8mm: 125° x 105° x 56° (diagonal x horizontal x vertical) 3.6mm: 104° x 87° x 47° (diagonal x horizontal x vertical)
Iris Type	Fixed iris
Close Focus Distance	2.8mm: 1.0 m (3.3 ft) 3.6mm: 1.8 m (6.2 ft)

	Lens	Detect	Observe	Recognize	Identify
DORI Distance	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)
	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)

Video

Frame Rate	CVI: 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
BLC	BLC/HLC/WDR
WDR	DWDR
White Balance	Auto; manual
Gain Control	Auto; manual
Noise Reduction	2D NR
Smart IR	Yes
Mirror	Off/On
Privacy Masking	Off/On (8 area, 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

Power

Power Supply	12V ±30% DC
Power Consumption	Max 3.56W (12V DC, IR 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	IP50

Structure

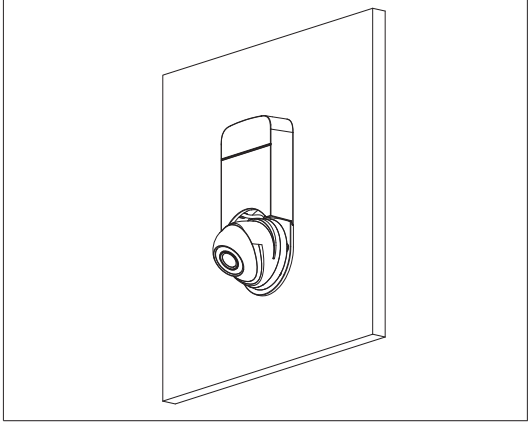
Casing	Plastic
Camera Dimensions	ϕ85.4 mm × 70.2 mm (ϕ3.36" × 2.76")
Net Weight	0.12 Kg (0.26 lb)
Gross Weight	0.19 kg (0.42 lb)

Ordering Information

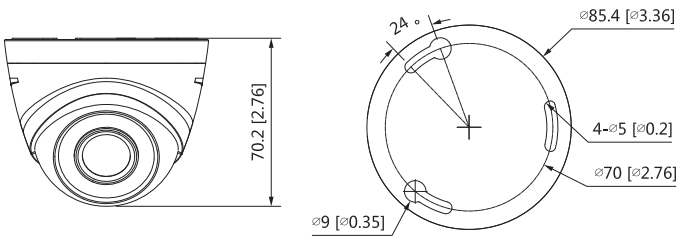
Type	Part Number	Description
4K Camera	DH-HAC-HDW1800RP 2.8mm	4K HDCVI IR Eyeball Camera
	DH-HAC-HDW1800RP 3.6mm	
	DH-HAC-HDW1800RN 2.8mm	
	DH-HAC-HDW1800RN 3.6mm	
Accessories	PFA12A	Plastic Junction Box
	PFM800-E	Passive HDCVI Balun
	PFM800-4K	Passive Video Balun
	PFM800B-4K	Passive Video Balun
	PFM320D Series	12V 2A Power Adapter
	PFM321D Series	12V 1A Power Adapter
	PFM320D-015	12V1.5A DC Power Adapter

Wall Mount

PFA12A



Dimensions (mm [inch])



Accessories

Optional:

PFA12A
Plastic Junction Box

PFM800-E
1 Channel Passive HDCVI Balun

PFM800-4K
Passive Video Balun

PFM800B-4K
Passive Video Balun

PFM320D Series
12V 2A Power Adapter

PFM320D-015
12V 1.5A DC Power Adapter