

# DH-HAC-HFW2401E

4MP HDCVI WDR IR Bullet Camera

## HDCVI



- 120dB True WDR, 3DNR
- Max 4MP real-time
- HD and SD dual-output
- 3.6mm fixed lens (2.8mm, 6mm optional)
- Max. IR length 40m, Smart IR
- IP67, DC12V



### System Overview

Experience superior 4MP video, a complete set of features, and the simplicity of reusing existing coaxial infrastructure with HDCVI. The 4MP HDCVI camera with 120dB true WDR presents a high quality image with rich details and accurate color rendition for applications with complex lighting conditions. It offers various motorized/fixed lens models with a multi-language OSD and HD&SD dual output. Its high resolution and complete set of features makes the 4MP HDCVI camera an ideal choice for mid to large-size businesses and projects where both highly reliable surveillance and construction flexibility are needed.

### 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 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.

#### Multi-outputs

The camera supports HDCVI and CVBS signal outputs simultaneously with two BNC connectors. Multi-outputs facilitates construction in such situations as debugging through a tester. It also offers the possibility for cooperating with multiple devices including analog matrix or monitor.

#### Smart IR

The camera is designed with array 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.

#### Wide Dynamic Range

Embedded with industry leading wide dynamic range (WDR) technology, vivid pictures are achieved even in the most intense contrast lighting conditions. True WDR (120dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

#### 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.

#### Large Aperture Lens

The camera adopts high-end F1.5 large aperture lens. With higher amount of absorbed light, the camera presents an impressive lowlight performance.

#### 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  $\pm 25\%$  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.

#### Elaborate Design

In order to minimize the interference against on-going business activities, as well as meeting aesthetics requirements, the front face of camera is designed with dark glass.

**Technical Specification****Camera**

Image Sensor	1/3" CMOS
Effective Pixels	2688(H)×1520(V), 4.1MP
Scanning System	Progressive
Electronic Shutter Speed	PAL: 1/4s~1/100,000s NTSC: 1/3s~1/100,000s
Minimum Illumination	0.01Lux/F1.5, 30IRE, 0Lux IR on
S/N Ratio	More than 65dB
IR Distance	Up to 40m (130feet)
IR On/Off Control	Auto / Manual
IR LEDs	2

**Lens**

Lens Type	Fixed lens / Fixed iris
Mount Type	Board-in
Focal Length	3.6mm (2.8mm, 6mm Optional)
Max Aperture	F1.5
Angle of View	H: 79° (99.7°/48.6°)
Focus Control	N/A
Close Focus Distance	1500mm (900mm, 1700mm) 59.06" (35.43", 66.93")

**DORI Distance**

Note: The DORI distance is a "general proximity" of distance which makes it easy to pinpoint the right camera for your needs. The DORI distance is calculated based on sensor specification and lab test result according to EN 62676-4 which defines the criteria for Detect, Observe, Recognize and Identify respectively.

	DORI Definition	Distance
Detect	25px/m (8px/ft)	2.8mm:63m(208ft) 3.6mm: 80m(262ft) 6mm:120m(394ft)
Observe	63px/m (19px/ft)	2.8mm:25m(83ft) 3.6mm: 32m(105ft) 6mm:48m(157ft)
Recognize	125px/m (38px/ft)	2.8mm:13m(42ft) 3.6mm: 16m(52ft) 6mm: 24m(79ft)
Identify	250px/m (76px/ft)	2.8mm:6m(21ft) 3.6mm: 8m(26ft) 6mm: 12m(39ft)

**Pan / Tilt / Rotation**

Pan/Tilt/Rotation	Pan: 0° ~ 360° Tilt: 0° ~ 90° Rotation: 0° ~ 360°
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**Video**

Resolution	4MP (2560×1440)
Frame Rate	25fps@4MP, 25/30fps@1080P, 25/30fps@720P

Video Output	1-channel BNC HDCVI high definition video output & 1-channel BNC CVBS video output
Day/Night	Auto (ICR) / Manual
OSD Menu	Multi-language
BLC Mode	BLC / HLC / WDR
WDR	120dB
Gain Control	AGC
Noise Reduction	2D/3D
White Balance	Auto / Manual
Smart IR	Auto / Manual

**Certifications**

Certifications	CE (EN55032, EN55024, EN50130-4) FCC (CFR 47 FCC Part 15 subpartB, ANSI C63.4-2014) UL (UL60950-1+CAN/CSA C22.2 No.60950-1)
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**Interface**

Audio Interface	N/A
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**Electrical**

Power Supply	12V DC ±25%
Power Consumption	Max 5.9W (12V DC, IR on)

**Environmental**

Operating Conditions	-30°C ~ +60°C (-22°F ~ +140°F) / Less than 90% RH * Start up should be done at above -30°C (-22°F)
Storage Conditions	-30°C ~ +60°C (-22°F ~ +140°F) / Less than 90% RH
Ingress Protection & Vandal Resistance	IP67

**Construction**

Casing	Aluminium
Dimensions	180mm×70mm×70mm (7.09"×2.76"×2.76")
Net Weight	0.40kg (0.89lb)
Gross Weight	0.51kg (1.12lb)

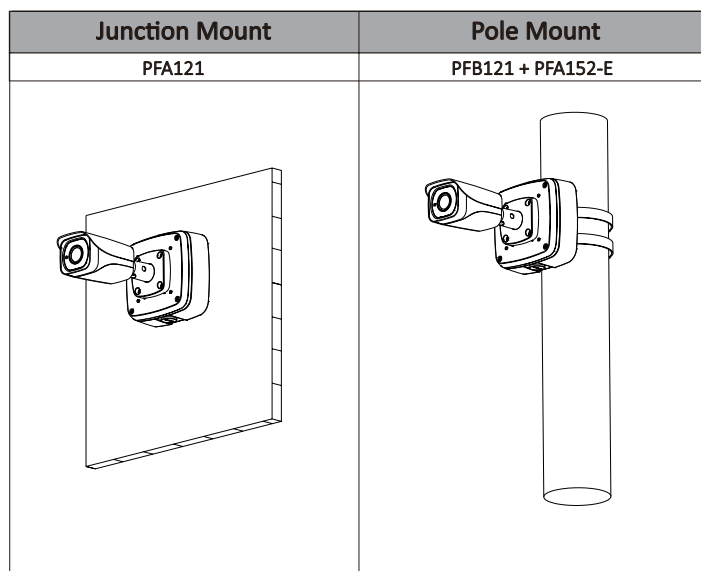


## Ordering Information

Type	Part Number	Description
4MP Camera	DH-HAC-HFW2401EP 2.8mm	4MP HDCVI WDR IR Bullet Camera, PAL
	DH-HAC-HFW2401EP 3.6mm	
	DH-HAC-HFW2401EP 6mm	
	DH-HAC-HFW2401EN 2.8mm	4MP HDCVI WDR IR Bullet Camera, NTSC
	DH-HAC-HFW2401EN 3.6mm	
	DH-HAC-HFW2401EN 6mm	
Accessories	PFA121	Junction box (For use alone or with PFA152-E pole mount)
	PFA152-E	Pole mount (For use with PFA121 junction box)
	PFM800-E	Passive HDCVI Balun
	PFM800-4MP	Passive HDCVI Balun
	PFM801-4MP	Passive HDCVI Balun With Power
	PFM809-4MP	16 channel Passive HDCVI Balun Receiver
	PFM321	12V 1A Power Adapter
	PFM320	12V 2A Power Adapter
	PFM320D-015	12V 1.5A Power Adapter

## Accessories

Optional:

PFA121  
Junction boxPFA152-E  
Pole mountPFM800-4MP  
Passive HDCVI BalunPFM801-4MP  
Passive HDCVI Balun  
With PowerPFM809-4MP  
16Channel Passive  
HDCVI Balun ReceiverPFM321  
12V 1A Power  
AdapterPFM320  
12V 2A Power  
AdapterPFM800-E  
Passive HDCVI BalunPFM320D-015  
Power Adapter

## Dimensions (mm/inch)

