

# DH-HAC-EB2401

4MP HDCVI WDR Fisheye Camera

## HDCVI



- 120dB True WDR, 3DNR
- Max 4MP real-time
- HD and SD dual-output
- 1.18mm panoramic lens
- IK10, 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 a 180° fisheye panoramic view with a multi-language OSD and HD&SD dual-output. With the use of advanced algorithms, several dewarping modes are available on the XVR (select models) and mobile client. Its higher 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 450m 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.

#### 360° panoramic view

Equipped with a fisheye lens for 360° surround view (ceiling/floor mount) or 180° panoramic view (wall mount) and high resolution with no blind spot. The cameras are able to provide coverage of wide, open areas, such as airports, shopping malls, retail stores, offices and more. So you will get a whole scene just with one fisheye camera.

#### Dewarping Mode

Fisheye dewarping is a function to solve the serious distortion problem of the circular panoramic view and you will use up to 10-modes dewarping mode for different installations with our XVR or on the web. Every dewarping area is adjustable and optional as you want.

#### 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.

#### Protection

The camera's outstanding reliability is unsurpassed due to its rugged design. The camera is protected against vandalism with IK10-rated, making it suitable for most environment such as retail stores, manufacturing and commercial facilities.

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.

### 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/F2.0 (Color), 0.001lux/F2.0(B/W), 30IRE
S/N Ratio	More than 65dB
IR Distance	NA
IR On/Off Control	NA
IR LEDs	NA

#### Lens

Lens Type	Fixed lens / Fixed iris
Mount Type	Board-in
Focal Length	1.18mm
Max Aperture	F2.0
Angle of View	H: 180°
Focus Control	N/A
Close Focus Distance	100mm 3.94"

#### 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)	24m(77ft)
Observe	63px/m (19px/ft)	9m(31ft)
Recognize	125px/m (38px/ft)	5m(15ft)
Identify	250px/m (76px/ft)	2m(8ft)

#### Pan / Tilt / Rotation

Pan/Tilt/Rotation	Pan: NA Tilt: NA Rotation: NA
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#### Video

Resolution	4MP (2560×1440)
Frame Rate	25fps@4MP
Video Output	1-channel BNC HDCVI high definition video output & 1-channel BNC CVBS video output
Day/Night	Auto (Electronic) / 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	NA

#### 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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#### Electrical

Power Supply	12V DC ±25%
Power Consumption	Max 2.2W (12V DC)

#### 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	IK10

#### Construction

Casing	Aluminium
Dimensions	φ110mm×56mm (φ4.3"×2.2")
Net Weight	0.41kg (0.9lb)
Gross Weight	0.45kg (0.99lb)

**Ordering Information**

Type	Part Number	Description
4MP Camera	DH-HAC-EB2401P 1.18mm	4MP HDCVI WDR Fisheye Camera, PAL
	DH-HAC-EB2401N 1.18mm	4MP HDCVI WDR Fisheye Camera, NTSC
Accessories	PFB203W	Wall mount(For use alone or with PFA152-E pole mount)
	PFA152-E	Pole mount (For use with PFB203W wall mount)
	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	

**Dimensions (mm/inch)**

Optional:



PFB203W  
Wall mount



PFA152-E  
Pole mount



PFM800-4MP  
Passive HDCVI Balun



PFM801-4MP  
Passive HDCVI Balun  
With Power



PFM809-4MP  
16Channel Passive  
HDCVI Balun Receiver



PFM321  
12V 1A Power  
Adapter



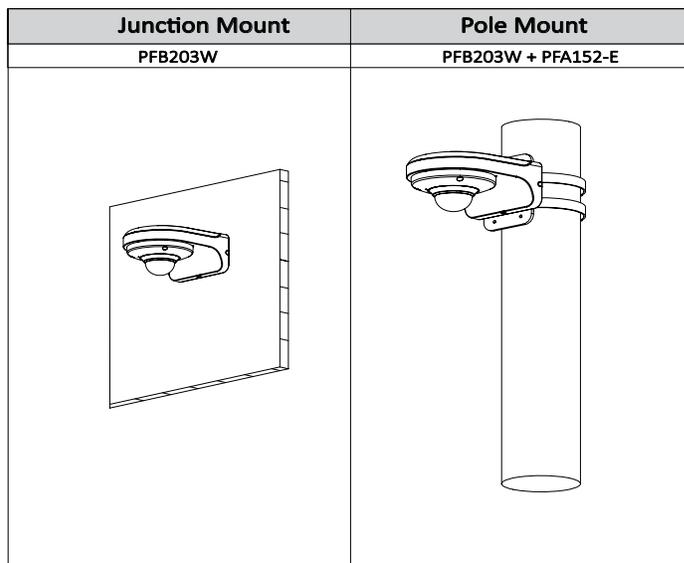
PFM320  
12V 2A Power  
Adapter



PFM800-E  
Passive HDCVI Balun



PFM320D-015  
Power Adapter



**Dimensions (mm/inch)**

