

# 4K HDCVI Box Camera

8 MP WDR HDCVI Box Camera

## HDCVI



- 4/3-in. 8 MP Progressive Scan CMOS Imager
- M43 Lens Interface
- 4K at 15 fps (HDMI), 4 MP at 30 fps (BNC)
- Ultra-low Starlight Technology
- Ultra Wide Dynamic Range (140 dB) and 2D and 3D Noise Reduction
- Built-in Microphone
- Software Upgrade via USB
- Five-year Warranty\*



### System Overview

Experience the superior clarity of Dahua's Ultra 4K HDCVI cameras for vast coverage and superior image details. As the world's first 4K over coax cameras, the Dahua Ultra 4K HDCVI series leverages existing coax infrastructures to deliver forensic-level images seamlessly and more cost effectively. The outstanding performance, easy installation and rugged design make the camera an ideal choice for mid- to large-size businesses and for applications in large, open spaces (city centers, parks, campuses) where highly reliable surveillance and construction flexibility are valued.

### Functions

#### 4K Resolution

4K resolution is a revolutionary breakthrough in image processing technology. 4K delivers four times the resolution of standard HDTV 1080p devices and offers superior picture quality and image details. 4K resolution improves the clarity of a magnified scene to view or record crisp forensic video from large areas.

#### M43 Lens Interface

The lens is a key component of any security camera and one that directly effects the quality of the image. The Dahua 4K HDCVI box camera features the M43 lens interface, typically found on most SLR cameras. This camera is compatible with all type of M43 lenses, including fixed and motorized vari-focal lenses.

#### Starlight Technology

For challenging low-light applications, Dahua's Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing color details in low light down to 0.001 lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

#### Three Signals over One Coaxial Cable

HDCVI technology simultaneously transmits video, power, and data over a single coaxial cable. Dual-way data transmission allows the HDCVI camera to communicate with an HCVR to send control signals or to trigger alarms. HDCVI along with PoC technology delivers power<sup>1</sup> to devices at the edge, simplifying installation.

#### Long Distance Transmission

HDCVI technology guarantees real-time transmission over long distances without loss of video quality. HDCVI cameras provide the same resolution as most IP network camera systems using existing RG-59, RG-6, or CAT 6 UTP cabling.

#### Simplicity

HDCVI technology seamlessly integrates traditional analog surveillance systems with upgraded, high-quality HD video, making it the best choice to protect security investments. The plug and play approach enables full HD video surveillance without the hassles of configuring a network.

#### Multiple Outputs

The camera supports HDCVI and CVBS signal outputs simultaneously with two BNC connectors. These output signals allow the camera to integrate with various devices, including analog matrix systems and monitors.

#### Ultra Wide Dynamic Range

For applications with both bright and low lighting conditions that change quickly, Ultra WDR (140 dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

#### Protection

Supporting dual voltage input (12 VDC or 24 VAC) and a  $\pm 25\%$  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.

1. Requires PoC Transceivers for each channel and an external power supply for each transceiver.

## Technical Specification

### Camera

Image Sensor	4/3-in. CMOS Imager
Effective Pixels	3840(H) x 2160(V), 8 MP
Scanning System	Progressive
Electronic Shutter Speed	1/1 s to 1/100,000 s
Minimum Illumination	Color: 0.001 lux at F1.2 B/W: 0.0001 lux at F1.2
S/N Ratio	More than 65 dB

### Lens

Lens Type	External
Mount Type	M43

### Video

Resolution	4K (8 MP) (3840 x 2160)	
Frame Rate	4K (3840 x 2160) at 15 fps, 4 MP at 30 fps	
Video Output	One (1) HDMI 4K Ultra High-definition Channel and, One (1) BNC Channel	
Video Transmission <sup>2</sup>	RG-59/U Coax	720p: 800 m (2624.67 ft) 1080p: 500 m (1640.42 ft) 4K/4 MP: 500 m (1640.42 ft)
	RG-6/U Coax	720p: 1200 m (3937.01 ft) 1080p: 800 m (2624.67 ft) 4K/4 MP: 700 m (2296.59 ft)
	CAT 6 UTP (balun required)	720p: 450 m (1476.38 ft) 1080p: 300 m (984.25 ft) 4K/4 MP: 300 m (984.25 ft)
Day/Night	Auto (Electronic), Manual	
On-Screen Display	Multi-language	
BLC Mode	BLC, HLC, WDR	
WDR	140 dB	
Gain Control	AGC	
Noise Reduction	2D/3D	
White Balance	Auto, Manual	

### Electrical

Power Supply, Input	24 VAC ±25% or 12 VDC ±25%
Power Consumption	Maximum 9 W (12 VDC)

### Interface

Audio	Input: Built-in Microphone
Alarm	Input: Two (2) Channels Output: One (1) Channel

### Certifications

Safety	EN55032, EN55024, EN50130-4 UL60950-1+CAN/CSA C22.2 No.60950-1
Electromagnetic Compatibility (EMC)	FCC CFR 47 FCC Part 15 subpartB, ANSI C63.4-2014

### Environmental

Operating Conditions	-30° C to +60° C (-22° F to +140° F), Less than 90% RH Initiate start up above -30° C (-22° F)
Storage Conditions	-30° C to +60° C (-22° F to +140° F), Less than 90% RH

### Construction

Casing	Aluminium
Dimensions	144.50 mm x 82.0 mm x 73.70 mm (5.69 in. x 3.23 in. x 2.90 in.)
Net Weight	0.62 kg (1.36 lb)
Gross Weight	0.83 kg (1.83 lb)

2. Transmission distance results verified by real-scene testing in Dahua's test laboratory. Actual transmission distances may vary due to external influences, cable quality, and wiring structures.

**Ordering Information**

Type	Part Number	Description
8 MP Camera	A83AA9	8 MP Ultra WDR HDCVI Box Camera
Accessories, optional	PFB110W	Wall/Ceiling Mount Bracket
	PFB121W	Wall Mount Bracket
	PFM800	Passive HDCVI Balun
	PFM810	POC Transceiver

**Accessories**

Optional:



PFB110W  
Wall/Ceiling Mount  
Bracket



PFB121W  
Wall Mount Bracket



PFM800  
Passive HDCVI Balun



PFM810  
POC Transceiver

**Dimensions (mm/inch)**

