

4K HDCVI Vari-focal Bullet Camera

8 MP WDR HDCVI IR Bullet Camera

HDCVI



- 1/2-in. 8 MP Progressive Scan CMOS Sensor
- 4K (3840 x 2160) Resolution at 15 fps
- 3.7 mm to 11 mm Motorized Optical Zoom Lens
- True Wide Dynamic Range (120 dB) and 2D/3D Noise Reduction
- HD and SD Dual-output
- Maximum IR length 100 m (328 ft), Smart IR
- IP67 Ingress Protection, IK10 Vandalism Protection
- Dual Power Input, 24 VAC or 12 VDC Power Supply
- 12 VDC Voltage Output
- Designed for Extreme Temperature Environments



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 resolution improves the clarity of a magnified scene to view or record crisp forensic video from large areas.

Four Signals over One Coaxial Cable

HDCVI technology simultaneously transmits four signals (video, power, audio, 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. Moreover, HDCVI technology supports PoC for construction flexibility.

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.

Smart IR

With IR illumination, detailed images can be captured in low light or total darkness. The camera's Smart IR technology adjusts the intensity of camera's infrared LEDs to compensate the distance of an object. Smart IR technology prevents IR LEDs from whitening out images as they come closer to the camera. The camera's integrated infrared illumination provides high performance in extreme low-light environments up to 100 m (328 ft).

Wide Dynamic Range

For applications with both bright and low lighting conditions that change quickly, True WDR (120 dB) 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 delivers remarkable noise reduction with little impact to sharpness, especially under limited lighting condition. 3DNR, in addition, effectively decreases the bandwidth and saves storage space.

Environmental

With a built-in heater and a temperature range of -40 °C to +60 °C (-40 °F to +140 °F), the camera is designed for extreme temperature environments. The camera complies with the IK10 Vandal Resistance impact rating making it capable of withstanding the equivalent of 5 kg (11.02 lbs) of force dropped from a height of 40 cm (15.75 in.). Subjected to rigorous dust and water immersion tests and certified to the IP67 Ingress Protection rating makes it suitable for demanding outdoor applications.

Supporting dual voltage input (12 VDC or 24 VAC) and a ±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 | 1/2-in. CMOS Sensor |
| 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: 0.01 lux at F1.5, 30 IRE 0 lux with IR on |
| S/N Ratio | More than 65 dB |
| IR Distance | Up to 100 m (328.08 ft) |
| IR On/Off Control | Auto, Manual |
| IR LEDs | Four (4) |

Lens

| | |
|----------------------|----------------------------|
| Lens Type | Motorized Lens / Auto Iris |
| Mount Type | Board-in |
| Focal Length | 3.7 mm to 11 mm |
| Maximum Aperture | F1.5 |
| Angle of View | Horizontal: 46° to 112° |
| Focus Control | Auto, Manual |
| Close Focus Distance | 200 mm (7.87 in.) |

Pan / Tilt / Rotation

| | |
|-------|--|
| Range | Pan: 0° to 360° Tilt: 0° to 90° Rotation: 0° to 360° |
|-------|--|

DORI Distances¹

| | Detect (8 ppf) | Observe (19 ppf) | Recognize (38 ppf) | Identify (76 ppf) |
|------------|-------------------|---------------------|-----------------------|----------------------|
| Wide-angle | 83 m (273 ft) | 33 m (109 ft) | 17 m (54 ft) | 8 m (27 ft) |
| Telephoto | 190 m (624 ft) | 76 m (250 ft) | 38 m (125 ft) | 19 m (62 ft) |

Video

| | | | |
|---------------------------------|---|--|--|
| Resolution | 8 MP (3840 x 2160) | | |
| Frame Rate | 3840 x 2160 at 15 fps 2560 x 1440 at 30 fps | | |
| Video Output | One (1) BNC HDCVI 4K Ultra High-definition Channel and, One (1) BNC CVBS Channel | | |
| Video Transmission ² | RG-59/U Coax | 720p: 800 m (2624.67 ft) 1080p: 500 m (1640.42 ft) 4K: 500 m (1640.42 ft) | |
| | RG-6/U Coax | 720p: 1200 m (3937.01 ft) 1080p: 800 m (2624.67 ft) 4K: 700 m (2296.59 ft) | |
| | CAT 6 UTP (balun required) | 720p: 450 m (1476.38 ft) 1080p: 300 m (984.25 ft) 4K: 300 m (984.25 ft) | |

| | |
|-------------------|--------------------|
| Day/Night | Auto (ICR), Manual |
| On-Screen Display | Multi-language |
| BLC Mode | BLC, HLC, WDR |
| WDR | 120 dB |
| Gain Control | AGC |
| Noise Reduction | 2D/3D |
| White Balance | Auto, Manual |
| Smart IR | Auto, Manual |

Interface

| | |
|-------|--|
| Audio | Input: One (1) Channel |
| Alarm | Input: Two (2) Channels Output: One (1) Channel |

Electrical

| | |
|---------------------|----------------------------|
| Power Supply, Input | 24 VAC ±25% or 12 VDC ±25% |
| Power, Output | 12 VDC, 4 W maximum |
| Power Consumption | 18.4 W maximum |

Certifications

| | |
|-------------------------------------|--|
| Safety | UL60950-1 CAN/CSA C22.2 No.60950-1 |
| Electromagnetic Compatibility (EMC) | FCC CFR 47 FCC Part 15 subpart B, ANSI C63.4-2014 |

Environmental

| | |
|----------------------|--|
| Operating Conditions | -40 °C to +60 °C (-40 °F to +140 °F), with built-in heater Less than 95% RH * Initiate Startup above -40 °C (-40 °F) |
| Storage Conditions | -40 °C to +60 °C (-40 °F to +140 °F), Less than 95% RH |
| Ingress Protection | IP67 |
| Vandal Resistance | IK10 |

1. The DORI distance is a measure of the general proximity for a specific classification to help pinpoint the right camera for your needs. The DORI distance is calculated based on sensor specifications and lab test results according to EN 62676-4, the standard that defines the criteria for the Detect, Observe, Recognize and Identify classifications.

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.

Construction

| | |
|--------------|---|
| Casing | Aluminium |
| Dimensions | 273.2 mm x 94.9 mm x 94.9 (10.76 in. x 3.74 in. x 3.74 in.) |
| Net Weight | 1.08 kg (2.38 lb) |
| Gross Weight | 1.33 kg (2.93 lb) |

Ordering Information

| Type | Part Number | Description |
|-----------------------|-------------|--|
| 8 MP Camera | A83ABBZ | 8 MP WDR HDCVI IR Bullet Camera |
| Accessories, optional | PFA121 | Junction Box (for use alone or with PFA152 Pole Mount) |
| | PFA152 | Pole mount (for use with PFA121 Junction Box) |
| | PFM800-4MP | Passive HDCVI Balun |

Accessories

Optional:



PFA121 Junction Box

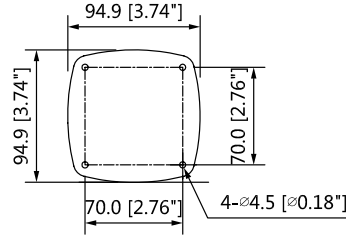
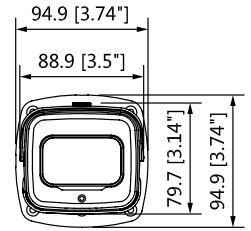
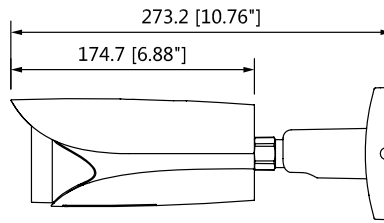


PFA152 Pole Mount



PFM800-4MP Passive HDCVI Balun

Dimensions (mm/inch)



| Junction Mount | Pole Mount |
|----------------|-----------------|
| PFA121 | PFA121 + PFA152 |
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