dahua TECHNOLOGY

4K HDCVI Vari-focal Bullet Camera
8 MP WDR HDCVI IR Bullet Camera

HDCVI

- 1/2-in. 8 MP Progressive Scan CMOS Imager
- 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

| 4K | WDR | AC 24V DC 12V | Vandal-proof | IP67 |

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
The camera complies to the IK10 Vandal Resistance impact rating making it capable of withstanding the equivalent of 55 kg (120 lbs) of force. 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 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: 0.01 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 Distances[1]

	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), 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

Dimensions (mm/inch)

273.2 [10.76"]
174.7 [6.88"]

94.9 [3.74"]
88.9 [3.5"]
79.7 [3.14"]
94.9 [3.74"]

94.9 [3.74"]
94.9 [3.74"]
70.0 [2.76"]
70.0 [2.76"]
4-⌀4.5 [⌀0.18"]

Accessories

Optional:

PFA121
Junction Box

PFA152
Pole Mount

PFM800-4MP
Passive HDCVI Balun
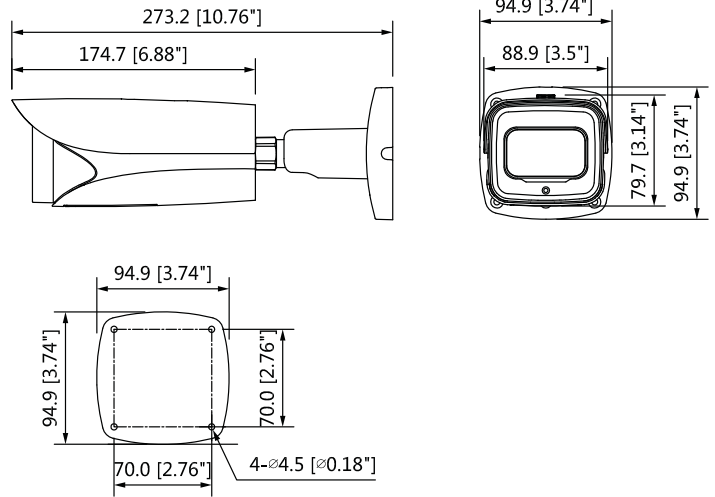
Junction Mount	Pole Mount
PFA121	PFA121 + PFA152