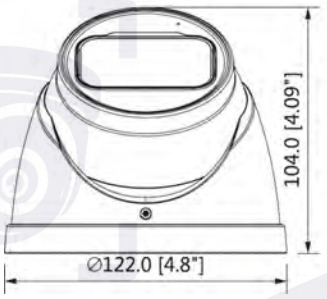
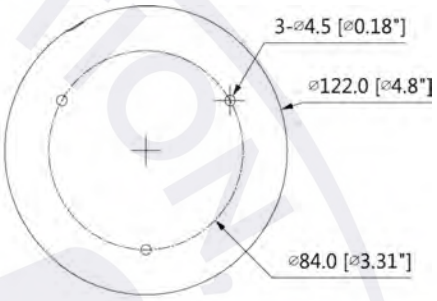
Dahua A42BJAZ4MP Night Color HDCVI Eyeball Camera Varifocal Lens True Wide Dynamic Range Camera

- 4 Megapixels
- Night Color Technology for Color Images in near-dark
- Applications
- 1/1.79-in. 4 MP Progressive-scan CMOS Sensor
- 4 MP (2560 × 1440) at 30 fps Maximum Resolution
- 3.7 mm to 11 mm Motorized Lens
- True Wide Dynamic Range (120 dB) and 2D/3D Digital Noise Reduction
- Video Formats:
  - HDCVI
  - CVBS
  - AHD
  - TVI
- Built-in Microphone
- HD or SD Output, Switchable
- IP67 Ingress Protection
- Power Input:
  - 24 VAC
  - 12 VDC





System Overview

Experience the superior clarity of Dahua's 4 MP HDCVI eyeball camera for vast coverage and superior image details. The 4 MP HDCVI series leverages existing coax infrastructures to deliver forensic-level images seamlessly and over long distances. The camera offers a motorized vari-focal lens, a multi-language On-screen Display, and HD/SD switchable output. The camera is ideal for hosting diverse applications — Night Color and True Wide Dynamic Range allow the camera to operate in any lighting condition and the IP67 rating makes the camera suitable for the harshest environments.

Functions

Night Color Technology

Dahua cameras with Night Color Technology incorporate a high-performance sensor and a large aperture lens to produce crisp, clear color images in low light environments. This light-sensitive technology allows the camera to capture more available light and reproduce color images with superior detail and contrast. Dahua Night Color Technology cameras are ideal for applications with at least 1 lux of ambient or artificial light, including parking lots, schools, urban streets and museums.

Three Signals over One Coaxial Cable

HDCVI technology simultaneously transmits video, 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.

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.

Broadcast-quality Audio

Audio information is used as supplementary evidence in video surveillance applications. This HDCVI camera transmits audio signals over the coaxial cable, eliminating the need for separate audio wiring. In addition, the camera uses unique audio processing and transmission technology that eliminates noise to best duplicate source audio, guaranteeing high-quality and highly effective audio information.

Multiple-format Support

The camera supports multiple video formats including, HDCVI, CVBS, AHD, and TVI. The camera can switch between these four formats via the OSD menu or the switch located on the video output cable, making the camera compatible with not only HDCVI DVRs but also most existing HD/SD DVRs.

True Wide Dynamic Range

The camera achieves vivid images, even in the most intense contrast lighting conditions, using industry-leading wide dynamic range (WDR) technology. 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.

Protection

The camera is subjected to rigorous dust and water immersion tests and certified to the IP67 Ingress Protection rating making it suitable for demanding outdoor applications. The camera allows for ±30% input voltage tolerance, suitable for the most unstable conditions for outdoor applications, and its 4KV lightning rating provides effective protection for both the camera and its structure against lightning.

Technical Specification

Camera

Image Sensor	1/1.79-in. CMOS Sensor
Effective Pixels	2560 (H) x 1440 (V), 4 MP
Scanning System	Progressive
Electronic Shutter Speed	1/3 s to 1/100,000 s
Minimum Illumination	Color: 0.002 lux at F1.9
S/N Ratio	More than 65 dB

Lens

Lens Type	Motorized Lens, Fixed Iris
Mount Type	Board-in
Focal Length	3.7 mm to 11 mm
Maximum Aperture	F1.9
Angle of View	Horizontal: 114.3° to 47.2° Vertical: 61.7° to 26.8°
Focus Control	Auto, Manual
Close Focus Distance	1500.0 mm (59.06 in.)

Installation Angle

Range	Pan: 0° to 360° Tilt: 0° to 78° Rotation: 0° to 360°

DORI Distances[1]

	Detect (8 ppf)	Observe (19 ppf)	Recognize (38 ppf)	Identify (76 ppf)
Wide	56 m (182 ft)	20 m (66 ft)	9 m (30 ft)	4 m (14 ft)
Tele	125 m (411 ft)	50 m (164 ft)	22 m (73 ft)	11 m (35 ft)

Video

Maximum Resolution	4 MP (2560 x 1440)	
Frame Rate	4 MP at 30 fps or 1080p at 30 fps	
Video Output	One (1) BNC, Transmits HDCVI High-definition signal or CVBS, AHD or TVI Channel, switchable	
Video Transmission[2]	RG-59/U Coax	720p: 800 m (2624.67 ft) 1080p: 500 m (1640.42 ft) 4 MP: 500 m (1640.42 ft)
	RG-6/U Coax	720p: 1200 m (3937.01 ft) 1080p: 800 m (2624.67 ft) 4 MP: 700 m (2296.59 ft)
	CAT 6 UTP (balun required)	720p: 450 m (1476.38 ft) 1080p: 300 m (984.25 ft) 4 MP: 300 m (984.25 ft)
Day/Night	Color	
OSD Menu	Multi-language	
BLC Mode	BLC, HLC, True WDR	
WDR	120 dB	
Gain Control	AGC	
Noise Reduction	2D, 3D	
White Balance	Auto, Manual	

Certifications

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

Interface

Audio[3]	Input: One (1) Channel, RCA Jack, plus One (1) Built-in Microphone

Electrical

Power Supply	24 VAC ± 30% or 12 VDC ± 30%
Power Output	12 VDC, 2 W maximum
Power Consumption	Maximum 10.3 W (12 VDC)

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
Ingress Protection	IP67

Construction

Casing	Aluminium
Dimensions	ø122.0 mm x 104.0 mm (ø4.80 in. x 4.09 in.)
Net Weight	0.63 kg (1.39 lb)
Gross Weight	0.83 kg (1.83 lb)

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.
3. The default audio input is via the built-in microphone; users must access the Advanced menu to switch the audio input to the cable option. The camera accepts audio from only one input source.