

HAC-D3A51P-Z

5MP IR HDCVI Motorized Vari-Focal Vandal-proof Dome Camera



Series Overview

The Series is a great choice for consumers looking for high quality monitoring products at a reasonable price. Its low cost and high performance make it ideal for residential areas and SMB solutions. This series is equipped with a wide range of technologies, such as full-color and starlight, providing various solutions for different scenarios.

Functions

Built-in Mic

Audio signal transmission over coaxial cables is supported by the HDCVI camera. It adopts a unique audio processing and transmission technology that restores source audio and eliminates noise, ensuring the quality and reliability of the audio information that is collected. This becomes important for video surveillance applications that use audio information as a type of supplementary evidence.

Smart IR Illumination

With its IR illumination, the camera provides optimal performance in low light conditions, ensuring uniformity in the brightness of B/W images. Through its smart IR technology, the camera also compensates for the distance of targets by adjusting the intensity of its IR LEDs, preventing overexposure of images as targets move closer to the camera.

Super Adapt

With its intelligent algorithm, the camera automatically adjusts its parameters to provide optimal performance and vivid images.

* In order to use the 5MP 16:9 and the Smart Dual Light HDCVI camera, the firmware of XVR must be upgraded to V4.001.0000004.1.R.220323 or later version.

- Max. 25 fps@5MP (16:9 video output)
- Starlight, 3D NR
- 60 m illumination distance.
- Built-in Mic.
- 2.7 mm-13.5 mm motorized lens.
- CVI/CVBS/AHD/TVI switchable.
- IP67, IK10, DC12V



Advanced 3DNR

Dahua's advanced 3DNR technology reduces image noise with little to no impact on image sharpness, especially in poor lighting conditions. It detects the noise, and compares the sequential frames to effectively reduce the noise. It also makes efficient use of bandwidth, saving on storage space.

Protection (IP67, IK10, Wide Voltage)

IP67: The camera passed a series of rigorous dust and immersion tests. Its enclosure is both dust-proof and waterproof, and can function normally while being immersed in 1 m deep water for up to 30 minutes.

IK10: The enclosure can withstand up to 5 punches from a 5 kg hammer falling from a height of 40 cm (impact energy is 20 J).

Wide voltage: The camera has $\pm 30\%$ input voltage tolerance (for some power supplies) and a wide voltage range, making it suitable for a variety of outdoor scenarios.

Technical Specification

Camera	
Image Sensor	5 MP CMOS
Max. Resolution	2880 (H) × 1620 (V)
Scanning System	Progressive
Electronic Shutter Speed	PAL: 1/25 s–1/100,000 s NTSC: 1/30 s–1/100,000 s
Min. Illumination	0.01 lux@F1.6 (Color, 30 IRE) 0.001 lux@F1.6 (B/W, 30 IRE) 0 lux (Illuminator on)
S/N Ratio	>65 dB
Illumination Distance	60 m (196.85 ft)
Illuminator On/Off Control	Auto/Manual
Illuminator Number	3 (IR light)
Angle Adjustment	Pan: 0°–355° Tilt: 0°–80° Rotation: 0°–355°

Lens	
Lens Type	Motorized vari-focal
Auto Focus	No
Lens Mount	ϕ14
Focal Length	2.7 mm–13.5 mm
Max. Aperture	F1.6
Field of View	H: 32.7°–111.8°; V: 18.4°–58.3°; D: 37.5°–135.2°
Iris Control	Fixed
Close Focus Distance	1.2 m (3.94 ft)

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	W	65.4 m (214.57 ft)	26.2 m (85.96 ft)	13.1 m (42.98 ft)	6.54 m (21.46 ft)
	T	202 m (662.73 ft)	80.8 m (265.09 ft)	40.4 m (132.55 ft)	20.2 m (66.27 ft)
	*DORI (Detect, Observe, Recognize, Identify) is a standard system (EN-62676-4) for defining the ability of a person viewing the video to distinguish persons or objects within a covered area. The numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and commissioning manual/project design tool.				

Video	
Video Frame Rate	CVI: PAL: 5M@25 fps; 5M@12.5 fps; 4M@25 fps; 1080p@25 fps NTSC: 5M@25 fps; 5M@20 fps; 5M@10 fps; 4M@30 fps; 1080p@30 fps AHD: PAL: 4M@25 fps NTSC: 4M@30 fps TVI: PAL: 5M 16:9@20 fps NTSC: 5M 16:9@20 fps CVBS: PAL: 960H NTSC: 960H

Resolution	5M (2880 × 1620); 4M (2560 × 1440); 1080p (1920 × 1080); 960 H (960 × 576/960 × 480); TVI 5M 16:9 (2960 × 1665)
Day/Night	Auto(ICR)/Color/B/W
BLC	BLC; HLC; WDR
WDR	DWDR
White Balance	Auto;Area white balance
Gain Control	Auto/Manual
Noise Reduction	3D NR
Illumination Mode	Smart IR
Mirror	Yes
Privacy Masking	Off/On (8 areas, rectangle)

Certification	
Certifications	CE-LVD: EN 62368-1; CE-EMC: EN 55032; EN 55035;

Audio	
Built-in Mic	Yes
Camera Audio	CVI; TVI
Pick-up Distance	8 m (26.25 ft)

Port	
Video Output	Video output choices of CVI/TVI/AHD/CVBS by one BNC port (DIP Switch)

Power	
Power Supply	12 VDC (±30%)
Power Consumption	Max 6.2 W (12 VDC, IR on)

Environment	
Operating Temperature	–30 °C to +60 °C (–22 °F to +140 °F)
Operating Humidity	<95% (RH), non-condensing
Storage Temperature	–30 °C to +60 °C (–22 °F to +140 °F)
Storage Humidity	<95% (RH), non-condensing
Protection	IP67;IK10
Anti-corrosion Level	Basic Protection *The products are designed for general use and are applicable even in areas with no specific requirements for anti-corrosion protection.

Structure	
Casing Material	Metal
Product Dimensions	Φ126 mm × 100 mm (Φ4.96" × 3.94")
Net Weight	0.62 kg (1.37 lb)
Gross Weight	0.80 kg (1.76 lb)
Installation	Wall mount; ceiling mount; vertical pole mount

Ordering Information

Type	Model	Description
HDCVI CAMERA		
	HAC-D3A51P-Z	5MP IR HDCVI Motorized Vari-Focal Vandal-proof Dome Camera,PAL
Accessories (Optional)	DH-PFB220C	Ceiling Mount Bracket
	DH-PFA109	Mount Adapter
	DH-PFA151	Corner Mount Bracket
	DH-PFB305W	Wall Mount Bracket
	DH-PFA150	Pole Mount Bracket
	DH-PFA156	Pole Mount Bracket
	DH-PFB2203W	Wall Mount Bracket
	DH-PFA197R	Junction Box
	DH-PFB5204C	In-ceiling Mount Bracket
	DH-PFM800-4K	1 Channel Passive HDCVI Balun
	DH-PFM321-EN	DC12V1A power adapter
	DH-PFM320D-EN	DC12V2A power adapter
	PFM904	Integrated Mount Tester

Accessories

Optional:



DH-PFA109
Mount Adapter



DH-PFA150
Pole Mount Bracket



DH-PFA151
Corner Mount Bracket



DH-PFA156
Pole Mount Bracket



DH-PFA197R
Junction Box



DH-PFB2203W
Wall Mount Bracket



DH-PFB220C
Ceiling Mount Bracket



DH-PFB305W
Wall Mount Bracket



DH-PFB5204C
In-ceiling Mount Bracket

Optional:



DH-PFM320D-EN
DC12V2A power adapter



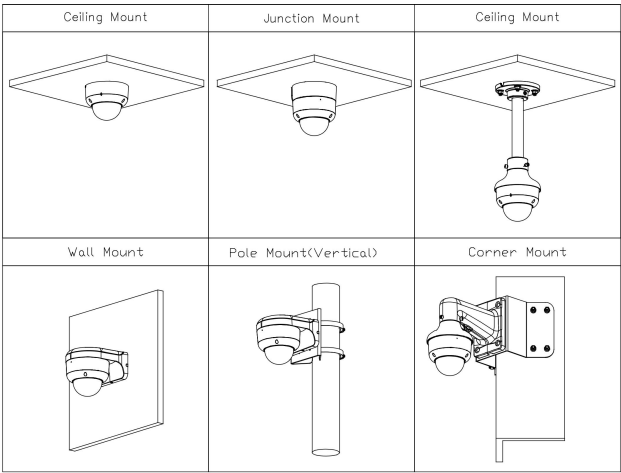
DH-PFM321-EN
DC12V1A power adapter



DH-PFM800-4K
1 Channel Passive HDCVI
Balun



PFM904
Integrated Mount Tester



Dimensions (mm[inch])

