

DH-HAC-D3A51-Z

5MP HDCVI IR Dome Camera



* The parameters and datasheets below can only be applied to A51-S2 series.

- Max. 25 fps@5MP (16:9 video output)
- CVI/CVBS/AHD/TVI switchable
- 2.7 mm–12 mm motorized lens
- Max. IR length 30 m; Smart IR
- IP67; DC12V



System Overview

Experience 5MP full HD video and the simplicity of using existing cabling infrastructure with HDCVI. The Lite series 5MP HDCVI camera features a compact design and offers a high quality image at a friendly price. It offers various motorized/fixed lens models with a multi-language OSD and HD/SD switchable output. Its structural flexibility and high cost-performance make the camera an ideal choice for SMB solutions.

Functions

4 Signals over 1 Coaxial Cable

HDCVI technology supports 4 signals to be transmitted over 1 coaxial cable simultaneously, i.e. video, audio*, data and power. Dual-way data transmission allows the HDCVI camera to interact with the XVR, such as sending control signal or triggering alarm. Moreover, HDCVI technology supports PoC for construction flexibility.

* Audio input is available for some models of HDCVI cameras.

Long Distance Transmission

HDCVI technology guarantees real-time transmission at long distance without any loss. It supports up to 700 m for 5MP HD video via coaxial cable, and up to 300 m via UTP cable.*

*Actual results verified by real-scene testing in Dahua's test laboratory.

Simplicity

HDCVI technology inherits the born feature of simplicity from traditional analog surveillance system, making itself a best choice for investment protection. HDCVI system can seamlessly upgrade the traditional analog system without replacing existing coaxial cabling. The plug and play approach enables full HD video surveillance without the hassle of configuring a network.

Smart IR

The camera is designed with IR LED illumination for best lowlight performance. Smart IR is a technology to ensure brightness uniformity in B/W image under low illumination. Dahua unique Smart IR adjusts to the intensity of camera's infrared LEDs to compensate for the distance of an object, and prevents IR LEDs from overexposing images as the object come closer to the camera.

Multi-formats

The camera supports multiple video formats including HDCVI, CVBS and other two common HD analog formats in the market. The four formats can be switched over through OSD menu. This feature makes the camera compatible with most end users' existing HD/SD DVRs.

Multi-language OSD

OSD menu provides multiple image adjustments and function settings to meet the requirements of different monitoring scenes. The OSD menu includes configurations such as backlight mode, day/night, white balance, privacy mask and motion detect. The camera supports 11 languages for OSD menu, namely, Chinese, English, French, German, Spanish, Portuguese, Italian, Japanese, Korean, Russian and Polish.

Protection

The camera's outstanding reliability is unsurpassed due to its rugged design. The camera is protected against water and dust with IP67 ranking, making it suitable for indoor or outdoor environments. With working temperature range of -30°C to $+60^{\circ}\text{C}$ (-22°F to $+140^{\circ}\text{F}$), the camera is designed for extreme temperature environments. Supporting $\pm 30\%$ 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		1/2.7 inch CMOS			
Max. Resolution		2880 (H) × 1620 (V)			
Pixel		5MP			
Scanning System		Progressive			
Electronic Shutter Speed		PAL: 1/25 s–1/100000 s NTSC: 1/30 s–1/100000 s			
S/N Ratio		> 65 dB			
Min. Illumination		0.01 Lux/F1.6; 30IRE; 0 Lux IR on			
Illumination Distance		30 m (98.4 ft)			
Illuminator On/Off Control		Auto; manual			
Illuminator Number		2			
Pan/Tilt/Rotation Range		Pan: 0°–355° Tilt: 0°–75° Rotation: 0°–355°			
Lens					
Lens Type		Motorized vari-focal			
Auto Focus		N/A			
Mount Type		Φ14			
Focal Length		2.7 mm–12 mm			
Max. Aperture		F1.6			
Field of View		Diagonal: 39°–130° Horizontal: 34°–107° Vertical: 19°–55°			
Iris Type		Fixed iris			
Close Focus Distance		0.5 m (1.64 ft)			
DORI Distance		Detect	Observe	Recognize	Identify
	2.7 mm	69 m (226.37 ft)	27.6 m (90.55 ft)	13.8 m (45.27 ft)	6.9 m (22.63 ft)
	12 mm	191.6 m (628.6 ft)	76.64 m (251.44 ft)	38.32 m (125.72 ft)	19.16 m (62.86 ft)
Video					
Frame Rate		CVI: PAL: 5M@25 fps; 4M@25 fps; 1080P@25 fps NTSC: 5M@25 fps; 4M@30 fps; 1080P@30 fps AHD: PAL: 4M@25 fps NTSC: 4M@30 fps TVI: PAL: 4M@25 fps NTSC: 4M@30 fps CVBS: PAL: 960H NTSC: 960H			
Resolution		5M (2880 × 1620); 4M (2560 × 1440); 1080p (1920 × 1080); 960H (960 × 576/960 × 480)			
Day/Night		Auto switch by ICR			
BLC		BLC/HLC/DWDR			
WDR		DWDR			

White Balance		Auto; manual
Gain Control		Auto; manual
Noise Reduction		2D NR
Smart IR		Yes
Mirror		Off/On
Privacy Masking		Off/On (8 areas; rectangle)
Certifications		
Certifications		CE (EN55032:2015, EN61000-3-2:2014, EN61000-3-3:2013, EN55024:2010+A1:2015, EN55035:2017, EN50130-4:2011+A1:2014, EN62368-1:2014+A11:2017) FCC (CFR 47 FCC Part 15 subpartB, ANSI C63.4-2014)
Port		
Video Output		Video output choices of CVI/TVI/AHD/CVBS by one BNC port
Power		
Power Supply		DC 12V ±30%
Power Consumption		Max 5.6W (12V DC; IR on)
Environment		
Operating Temperature		–30°C to +60°C (–22°F to +140°F) < 95% (non-condensation)
Storage Temperature		–30°C to +60°C (–22°F to +140°F) < 95% (non-condensation)
Protection Grade		IP67
Structure		
Casing		Plastic throughout the whole casing
Camera Dimensions		Φ122.0 mm × 98.1 mm (Φ4.80" × 3.86")
Net Weight		0.34 kg (0.75 lb)
Gross Weight		0.51 kg (1.12 lb)

Ordering Information		
Type	Part Number	Description
5MP Camera	DH-HAC-D3A51P-Z 2.7–12 mm	5MP HDCVI IR Dome Camera
	DH-HAC-D3A51N-Z 2.7–12 mm	
Accessories	PFA123	IP66 Junction Box
	PFA137	Junction Box
	PFB203W	Wall Mount Bracket (For use alone or with PFA152-E)
	PFA152-E	Pole Mount Bracket (For use with PFB203W)
	PFB220C	Ceiling Mount Bracket (For use with PFA106)
	PFA106	Mount Adapter (For use with PFB220C)
	PFM800-4K	Passive HDCVI Balun

PFM321D	12V 1A Power Adapter
PFM904	Integrated Mount Tester

Accessories

Optional:



PFA123
IP66 Junction Box



PFA137
Junction Box



PFB203W
Wall Mount Bracket
(For use alone or with
PFA152-E)



PFA152-E
Pole Mount Bracket
(For use with PFB203W)



PFB220C
Ceiling Mount Bracket
(For use with PFA106)



PFA106
Mount Adapter
(For use with PFB220C)



PFM800-4K
Passive HDCVI Balun

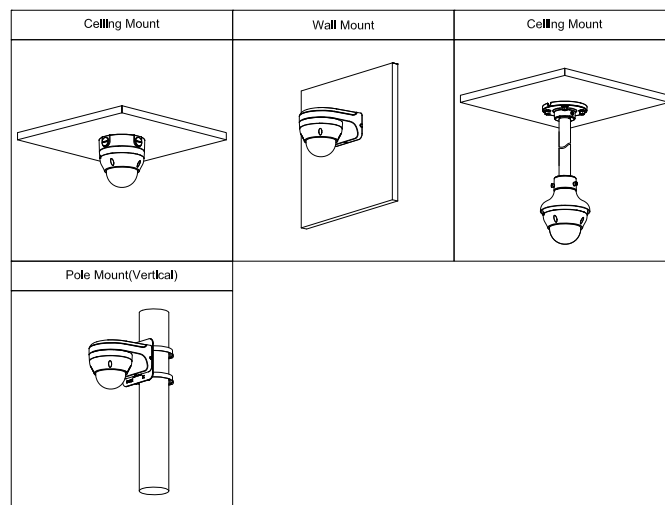


PFM321D
12V 1A Power Adapter



PFM904
Integrated Mount Tester

Installation



Dimensions (mm [inch])

