

4 MP HDCVI Dome Camera

4 MP WDR HDCVI IR Vari-focal Dome Camera

HDCVI



System Overview

Experience the superior clarity of real-time 4 MP video while leveraging your existing coaxial infrastructure. The camera features 120 dB True WDR for applications under complex dynamic range and presents high quality images with clear details and accurate color rendition. The camera offers a multi-language on-screen display and HD and SD dual-output. The outstanding performance and easy installation make the camera an ideal choice for mid- to large-size businesses and for projects where highly reliable surveillance and construction flexibility are valued.

Functions

Three Signals over One Coaxial Cable

HDCVI technology simultaneously transmits video, power, 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. HDCVI along with PoC technology delivers power¹ to devices at the edge, simplifying installation.

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.

Multi-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.

- 1/3-in Progressive-scan CMOS Sensor
- Maximum 4 MP Resolution in Real-time
- 2.7 mm to 13.5 mm Motorized Lens
- True Wide Dynamic Range (120 dB) and 3DNR
- HD and SD Dual-output
- Maximum IR length 30 m (98 ft), Smart IR
- IP67 Ingress Protection, IK10 Vandalism Protection
- 24 VAC / 12 VDC Power Supply















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 30 m (98 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.

Large Aperture Lens

The camera uses a high-end F1.3 large-aperture lens, allowing more absorbed light into the camera for impressive low-light performance.

Protection

The camera's outstanding reliability is unsurpassed due to its rugged design. The camera is protected against water and dust with IP67, making it suitable for indoor or outdoor environments.

With a working temperature range of -30 °C to +60 °C (-22 °F to +140 °F), the camera is designed for extreme temperature environments. Supporting $\pm 25\%$ 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.

^{1.} Requires PoC Transceivers for each channel and an external power supply for each transceiver.

Camera			
Image Sensor	1/3-in. CMOS		
Effective Pixels	2688(H) x 1520(V), 4.1 MP		
Scanning System	Progressive		
Electronic Shutter Speed	1/3 s to 1/100,000	1/3 s to 1/100,000 s	
Minimum Illumination	0.01 Lux at F1.3 0 Lux with IR on		
S/N Ratio	More than 65 dB		
IR Distance	Up to 30 m (98 ft)	Up to 30 m (98 ft)	
IR On/Off Control	Auto, Manual	Auto, Manual	
IR LEDs	Two (2)	Two (2)	
Lens			
Lens Type	Motorized Lens / F	Motorized Lens / Fixed Iris	
Mount Type	Board-in	Board-in	
Focal Length	2.7 mm to 13.5 mn	2.7 mm to 13.5 mm	
Max Aperture	F1.3	F1.3	
Angle of View	Horizontal: 26° to 9	Horizontal: 26° to 98°	
Focus Control	Auto, Manual	Auto, Manual	
Close Focus Distance	200 mm (7.87 in.)	200 mm (7.87 in.)	
Pan / Tilt / Rotation			
Range	Pan: 0° to 355° Tilt: 0° to 75° Rotation: 0° to 355		
Video			
Resolution	4 MP (2560 x 1440	4 MP (2560 x 1440)	
Frame Rate	4 MP at 25 fps 1080p at 30 fps 720p at 30 fps	1080p at 30 fps	
Video Output		One (1) BNC HDCVI 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) 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	Auto (ICR), Manual	Auto (ICR), Manual	
OSD Menu	Multi-language	Multi-language	
BLC Mode	BLC, HLC, WDR		
WDR	120 dB	120 dB	
Gain Control	AGC	AGC	
Noise Reduction	2D/3D	2D/3D	
White Balance	Auto, Manual	Auto, Manual	
		Auto, Manual	

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
Electrical	
Power Supply	24 VAC ±25%, 12 VDC ±25%
Power Consumption	Maximum 10.1 W (12 VDC with IR on)
Environmental	
Operating Conditions	-30° C to +60° C (-22° F to +140° F), Less than 90% RH * Start up should be done above -30° C (-22° F)
Storage Conditions	-30° C to +60° C (-22° F to +140° F), Less than 90% RH
Ingress Protection	IP67
Vandal Resistance	IK10
Construction	
Casing	Aluminium
Color	White or Black
Dimensions	ø122.0 mm x 88.90 mm (ø4.80 in. x 3.50 in.)
Net Weight	0.48 kg (1.06 lb)

0.63 kg (1.39 lb)

Gross Weight

^{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.

Ordering Information			
Туре	Part Number	Description	
4 MP HDCVI Camera	A42AM2Z-B	4 MP Starlight HDCVI IR 2.7 mm to 13.5 mm Vari-focal Lens Dome Camera, True WDR, Black Housing	
Accessories, optional	PFA106	Mount Adapter	
	PFA137-B	Junction Box, black	
	PFA151-B	Corner Mount, black (Use with PFB305W wall mount)	
	PFA152-E-B	Pole Mount, black (Use with PFB203W-B wall mount)	
	PFA200W	Sun/Rain Shield (Use with PFB203W-B wall mount)	
	PFB200C	In-ceiling Mount	
	PFB203W-B	Wall Mount, black (Use alone or with PFA152-E-B pole mount)	
	PFB220C	Ceiling Mount (Use with PFA106 mount adapter)	
	PFB305W	Wall Mount (Use with PFA106 mount adapter)	
	DH-PFM320D-US	12 VDC, 2 A Power Adapter	
	DH-PFM321D-US	12 VDC, 1 A Power Adapter	
	DH-PFM800-4K	4K Passive HDCVI Balun	
Audio Accessories, optional	HAP100	Pinhole Pickup	
	HAP200	High-fidelity Pickup	

Accessories

Optional:



PFA106 Mount Adapter



PFA137-B Junction Box



PFA152-E-B Pole Mount



PFA151-B Corner Mount



PFA200W Sun/Rain Shield



In-ceiling Mount



DH-PFM320D-US 12 VDC, 2 A Power Adapter

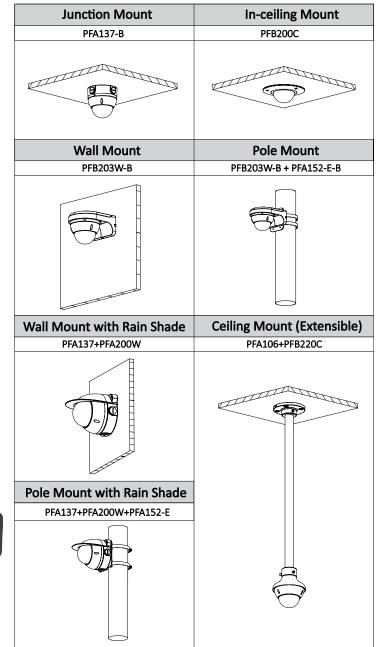


DH-PFM321D-US 12 VDC, 1 A Power Adapter

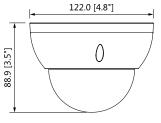


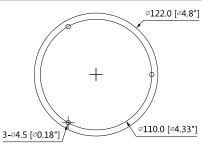
PFB220C

DH-PFM800-4K Passive HDCVI Balun



Dimensions (mm/in.)







PFB305W

Wall Mount

HAP100 Pinhole Pickup



HAP200 High-fidelity Pickup



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