dahua TECHNOLOGY

4 MP HDCVI Fisheye Camera
180° WDR Indoor Fisheye Camera

HDCVI

- Indoor 180° Fisheye Camera
- 1/3-in. Progressive-scan CMOS Sensor
- 4 MP at 30 fps Maximum Resolution
- 1.18 mm Panoramic Lens
- True Wide Dynamic Range (120 dB), 3D DNR
- HD and SD Dual-output
- IK10 Vandal Resistance
- Five-year Warranty*

| Pro Series | 4Mp | WDR | Fisheye | DC 12V | Vandal-proof |

System Overview

Experience the superior clarity of real-time 4 MP video while leveraging your existing coaxial infrastructure. The 4 MP HDCVI fisheye camera offers a 180° panoramic view with multiple dewarping modes for clear pictures. The camera delivers high quality images with crisp details and accurate color rendition, even under complex lighting conditions thanks to True WDR (120 dB). The compact camera replaces multiple single-sensor cameras providing a higher return on investment for your security dollars, making it an excellent choice for small to mid-size business applications.

Functions

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. HDCVI along with PoC technology delivers power[1] 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.

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.

180° Panoramic View
Dahua's Fisheye cameras allow for a 180° hemispherical image that can be dewarped in order to view individual elements separately. In environments that require broad coverage, panoramic cameras can do the job alone where several cameras would be needed otherwise. With a high resolution sensor providing a 180° view, blind spots are eliminated. Easy to install on a ceiling or wall, these cameras are well-suited for office buildings, parking garages, gas stations, and retail environments.

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.

Protection
The camera's outstanding reliability is unsurpassed due to its rugged design. The camera has an IK10 vandal resistance rating making it suitable for retial stores, manufacturing facilities, and commercial installations.

Supporting ±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	1/3-in. CMOS Sensor
Effective Pixels	2688(H) x 1520(V), 4.1 MP
Scanning System	Progressive
Electronic Shutter Speed	1/3 s to 1/100,000 s
Minimum Illumination	Color: 0.01 Lux at F2.0 B/W: 0.001 Lux at F2.0
S/N Ratio	More than 65 dB

Lens

Lens Type	Fixed Lens / Fixed Iris
Mount Type	Board-in
Focal Length	1.18 mm
Maximum Aperture	F2.0
Angle of View	180°
Close Focus Distance	100 mm (3.94 in.)

DORI[2] Distances

Detect (8 ppf)	Observe (19 ppf)	Recognize (38 ppf)	Identify (76 ppf)
24 m (79 ft)	9 m (30 ft)	5 m (16 ft)	2 m (7 ft)

Video

Resolution	4 MP (2560 x 1440)	
Frame Rate	4 MP at 30 fps	
Video Output	One (1) BNC HDCVI High-definition Channel and, One (1) BNC CVBS Channel	
Transmission Distances[3]	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 5e 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 (Electronic), Manual	
OSD Menu	Multi-language	
BLC Mode	BLC, HLC, WDR	
WDR	True WDR (120 dB)	
Gain Control	AGC	
Noise Reduction	2D/3D	
White Balance	Auto, Manual	

Certifications

Safety	UL60950-1+CAN/CSA C22.2 No.60950-1
Electromagnetic Compatibility (EMC)	CFR 47 FCC Part 15 Subpart B ANSI C63.4-2014

Electrical

Power Supply	12 VDC ± 25%
Power Consumption	Maximum 2.2 W at 12 VDC

Environmental

Operating Conditions	-30 °C to +60 °C (-22 °F to +140 °F), Less than 90% RH * Initiate startup above -30 °C (-22 °F)
Storage Conditions	-30 °C to +60 °C (-22 °F to +140 °F), Less than 90% RH
Vandal Resistance	IK10

Construction

Casing	Aluminium
Dimensions	Ø110.0 mm x 56.0 mm (Ø4.33 in. x 2.20 in.)
Net Weight	0.41 kg (0.90 lb)
Gross Weight	0.45 kg (0.99 lb)

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1. Requires PoC Transceivers for each channel and an external power supply for each transceiver.
2. 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.
3. 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

Type	Part Number	Description
4 MP Fisheye Camera	A42AR2	4 MP HDCVI WDR Fisheye Camera
Accessories, optional	PFA106	Mount Adapter
	PFA152-E	Pole Mount
	PFB203W	Wall Mount
	PFB220C	Ceiling Mount (use with PFA106 mount adapter)
	PFB305W	Wall Mount (use with PFA106 mount adapter)
	DH-PFM321D-US	12 VDC, 1 A Power Adapter
	PFM800	Passive HDCVI Balun
	PFM810	PoC Transceiver

Junction Mount	Pole Mount
PFB203W	PFB203W + PFA152

Accessories

Optional:

PFA152-E
Pole Mount

PFB203W
Wall Mount

DH-PFM321D-US
Power Adapter

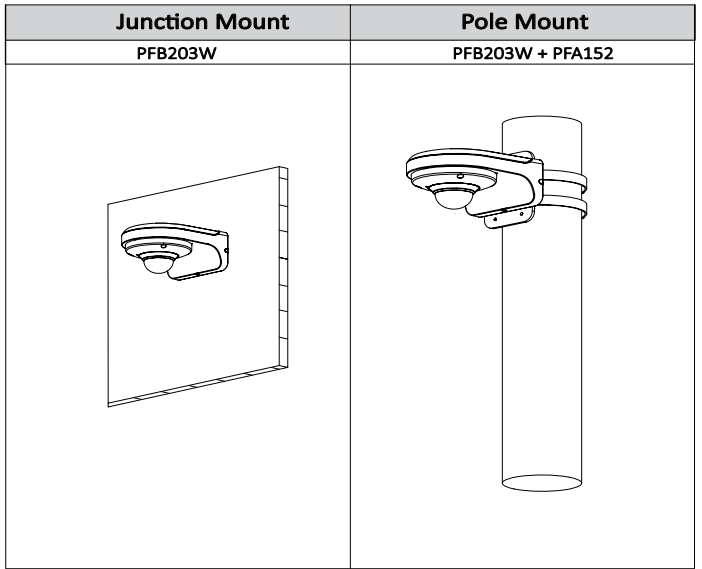

PFA106
Mount Adapter

PFB220C
Ceiling Mount

PFB305W
Wall Mount

PFM810
PoC Transceiver

PFM800
Passive HDCVI Balun

Dimensions (mm/in.)

56.0 mm (2.20 in.)

ø110.0 mm (ø4.33 in.)

3 x ø3.4 mm (ø0.13 in.)

ø98.1 mm (ø3.86 in.)