

# 2MP HDCVI Vari-focal Dome Camera

Starlight+ Technology and True Wide Dynamic Range



#### **System Overview**

Experience the superior clarity of Dahua's 2 MP HDCVI camera for vast coverage and superior image details. The 2 MP HDCVI series leverages existing coax infrastructures to deliver forensic-level images seamlessly and over long distances. The camera offers a motorized zoom lens, a multi-language On-screen Display, and HD/SD switchable output. The camera is ideal for hosting diverse applications — Starlight Technology 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**

#### Starlight+ Technology

For challenging low-light applications, Dahua's Starlight low light Technology offers best-in-class light sensitivity, capturing details in low light applications. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

#### 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.

- 1/2.8-in. 2 MP Progressive-scan CMOS Sensor
- 2 MP (1920 x 1080) at 30 fps Maximum Resolution
- 2.7 mm to 13.5 mm Motorized Lens
- Starlight+ Technology for Low-light Applications
- True Wide Dynamic Range (120 dB) and 3D Noise Reduction
- Supports Multiple Video Formats: HDCVI, CVBS, AHD and TVI
- HD or SD Output, Switchable
- Built-in Microphone
- Maximum IR Length 60 m (196.85 ft)
- IP67 Ingress Protection and IK10 Vandal Resistance
- Five-year Warranty\*













#### Super Adapt

The Super Adapt function is a built-in algorithm that automatically adjusts the camera's optical settings as environmental conditions change to produce optimal video quality. This function helps to make initial configuration easy since it does not require setting the optical settings manually once the camera is installed.

#### **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 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 optimizes both the bright and dark areas of a scene at the same time to provide usable video.

#### Protection

The camera complies with an IK10 impact rating making it capable of withstanding the equivalent of 5 kg (11.02 lbs) of force dropped from a height of 40 cm (15.75 in.). Subjected and certified to rigorous dust and water immersion tests, the IP67 rating makes it suitable for demanding outdoor applications. The camera allows for  $\pm 30\%$  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	on				
Camera					
Image Sensor	1/2.8-in. CMOS Sensor				
Effective Pixels		1920 (H) x 1080 (V), 2 MP			
Scanning System		Progressive			
Electronic Shutter Speed		1/30 s to 1/100,000 s			
Minimum Illumination		Color: 0.001 lux at F1.5, 30 IRE 0 lux at F1.5 with IR On			
S/N Ratio		More than 65 dB			
IR Distance		Up to 60.0 m (196.85 ft)			
IR Control		Auto, Manua	Auto, Manual		
IR LEDs		Three (3)			
Lens					
Lens Type	Motorized Lens				
Mount Type		ø14			
Focal Length		2.7 mm to 13.5 mm			
Maximum Aperture		F1.5			
Angle of View		Horizontal: 108° to 30° Vertical: 56° to 17° Diagonal: 131° to 35°			
Iris Type		Fixed Iris			
Close Focus Distance		800.0 mm (31.50 in.)			
Installation Angle					
Range		Pan: 0° to 355° Tilt: 0° to 80° Rotation: 0° to 355°			
DORI Distances <sup>1</sup>					
	Detect (8 ppf)	Observe (19 ppf)	Recognize (38 ppf)	Identify (76 ppf)	
2.7 mm	44.10 m (144.70 ft)	17.60 m (57.70 ft)	8.80 m (28.90 ft)	4.40 m (14.40 ft)	
13.5 mm	144.80 m (475.10 ft)	57.90 m (190.0 ft)	28.90 m (94.80 ft)	14.80 m (48.60 ft)	

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.

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.

#### Video

Video				
Maximum Resolution 1080p (1920 x 10		1080p (1920 x 10	080), 960Н (960 х 480)	
	HDCVI	1080p at 30 fps		
Frame	AHD	1080p at 30 fps		
Rate	TVI	1080p at 30 fps		
	CVBS	960 x 480H at 30 fps		
VIDEO CHITDHI		One (1) BNC, Train AHD or TVI Chann	nsmits HDCVI High-definition signal or CVBS, nel, switchable	
		RG-59/U Coax	720p: 800 m (2624.67 ft) 1080p: 500 m (1640.42 ft)	
Video Tran	smission <sup>2</sup>	RG-6/U Coax	720p: 1200 m (3937.01 ft) 1080p: 800 m (2624.67 ft)	
		CAT 6 UTP (balun required)	720p: 450 m (1476.38 ft) 1080p: 300 m (984.25 ft)	
Day/Night			Auto (ICR), Manual	
OSD Menu			Multi-language	
BLC Mode			BLC, HLC, True WDR	
WDR			120 dB	
Gain Control			Auto, Manual	
Noise Reduction			3D	
White Balance			Auto, Manual	
Smart IR			Auto, Manual	
Mirror			On, Off	
Privacy Masking			Off/On (8 areas, rectangular)	
Certifica	tions			
CE			EN55032 EN55024 EN50130-4	
Safety			UL60950-1 CAN/CSA C22.2 No.60950-1	
Electromagnetic Compatibility (EMC)		itibility (EMC)	CFR 47 FCC Part 15 subpart B, ANSI C63.4-2014	
Interface	2			
Video			One (1) Port, BNC HDCVI, TVI, AHD, CVBS selectable via DIP Switch	
Audio			Input: One (1) Built-in Microphone	
Electrica	al			
Power Supply			24 VAC ±25% or 12 VDC ±10%	
Power Consumption			Maximum 9.9 W (12 VDC, IR On)	
Environmental				
Operating Conditions			-30° C to +60° C (-22° F to +140° F) Less than 90% RH	
Storage Conditions			-30° C to +60° C (-22° F to +140° F) Less than 90% RH	
Ingress Protection			IP67	
Vandal Resistance			IK10	

## Pro Series | A22DMAZ

#### Construction

Casing	Metal
Dimensions	ø126.0 mm x 100.0 mm (ø4.96 in. x 3.94 in.)
Net Weight	0.65 kg (1.43 lb)
Gross Weight	0.83 kg (1.83 lb)

Ord	ering	Inform	ation

Ordering Information			
Туре	Part Number	Description	
2 MP Camera	A22DMAZ	2 MP Starlight+ 2.7 mm to 13.5 mm Varifocal Lens Dome Camera, True WDR	
	PFA106	Mount Adapter (use with PFB305W or PFB220C)	
	PFA123	Junction Box	
	PFA137	Junction Box	
	PFA151	Corner Mount (use with PFA106 and PFB305W)	
Accessories,	PFA152-E	Pole Mount (use with PFB203W wall mount)	
optional	PFB220C	Ceiling Mount (use with PFA106 mount adapter)	
	PFB203W	Wall Mount (use alone or with PFA152-E pole mount)	
	PFB305W	Wall Mount (use with PFA106 mount adapter)	
	PFM800-E	Passive HDCVI Balun	
	DH-PFM321D-US	12 VDC, 1 A Power Adapter	

### Accessories

#### Optional:



PFA106 Mount Adapter



PFA123 Junction Box



PFA137 Junction Box



PFA151 Corner Mount



PFA152-E Pole Mount





PFB220C Ceiling Mount



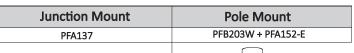
PFB305W Wall Mount

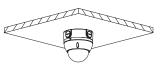


PFM800-E Passive HDCVI Balun



DH-PFM321D-US Power Adapter

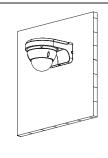




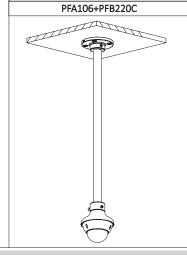
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#### Wall Mount

PFB203W



## Ceiling Mount (Extensible)



#### Dimensions (mm/in.)

