

# 2 MP HDCVI Fixed Bullet Camera

2 MP HDCVI IR Bullet Camera

## HDCVI



- Maximum 1080p at 30 fps Resolution
- HD and SD Switchable Output
- Supports Multiple Video Formats: HDCVI, CVBS, AHD and TVI
- 2.8 mm or 3.6 mm Fixed Lens Options
- Maximum IR Length 40 m (130 ft) with Smart IR
- IP67 Environmental Protection
- Five-year Warranty\*



### System Overview

Experience the superior clarity of Full HD 1080p video while leveraging your existing coaxial infrastructure. The camera features Smart IR technology to deliver clear images in near total darkness. The camera offers a multi-language on-screen display and HD and SD dual-output. The outstanding performance and low price make the camera an ideal choice for small businesses that value surveillance.

### Functions

#### Three Signals over a Single 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 power<sup>1</sup> 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.

#### 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 40 m (130 ft).

#### Multi-format Support

The camera supports multiple video formats including, HDCVI, CVBS, AHD, and TVI. The camera can switch between these four formats via the OSD menu or via a UTC controller (PFM820), making the camera compatible with not only HCVRs but also most existing HD/SD DVRs.

#### Multi-language OSD

The 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 detection and offers Chinese, English, French, German, Spanish, Italian, Japanese, Korean, Russian, Polish, and Portuguese variations.

#### Protection

The camera's outstanding reliability is unsurpassed due to its rugged design. Subjected to rigorous dust and water immersion tests and certified to the IP67 Ingress Protection rating makes it suitable for demanding outdoor applications.

With a working temperature range of -40 °C to +60 °C (-40 °F to +140 °F), the camera is designed for extreme temperature environments. 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.

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

### Technical Specification

#### Camera

Image Sensor	1/2.9-in. CMOS
Effective Pixels	1920(H) x 1080(V), 2 MP
Scanning System	Progressive
Electronic Shutter Speed	1/30 s to 1/100000 s
Minimum Illumination	0.01 Lux at F2.0 0 Lux with IR on
S/N Ratio	More than 65 dB
IR Distance	Up to 40 m (130 ft)
IR On/Off Control	Auto, Manual
IR LEDs	Two (2)

#### Lens

Lens Type	Fixed Lens / Fixed Iris
Mount Type	Board-in
Focal Length	A21BB02: 2.8 mm A21BB03: 3.6 mm
Max Aperture	F2.1
Angle of View	A21BB02: 106° A21BB03: 82.8°
Close Focus Distance	A21BB02: 500 m (19.7 in.) A21BB03: 800 m (31.5 in.)

#### Pan / Tilt / Rotation

Range	Pan: 0° to 360° Tilt: 0° to 90° Rotation: 0° to 360°
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#### Video

Resolution	1080p (1920 × 1080)	
Frame Rate	1080p @ 30 fps 720p @ 30/60 fps	
Video Output	One (1) BNC HDCVI High-definition Channel One (1) BNC CVBS, AHD or TVI Channel, switchable	
Video Transmission <sup>2</sup>	RG-59/U Coax	720p: 800 m (2624.67 ft) 1080p: 500 m (1640.42 ft)
	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, DWDR	
WDR	Digital WDR	
Gain Control	AGC	
Noise Reduction	2D	
White Balance	Auto, Manual	
Smart IR	Auto, Manual	

#### Certifications

Safety	EN55032, EN55024, EN50130-4 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	12 VDC ±25%
Power Consumption	Max 4.6 W (12 VDC with IR on)

#### Environmental

Operating Conditions	-40° C to +60° C (-40° F to +140° F), Less than 95% RH Initiate startup above -40° C (-40° F)
Storage Conditions	-40° C to +60° C (-40° F to +140° F), Less than 95% RH
Ingress Protection	IP67

#### Construction

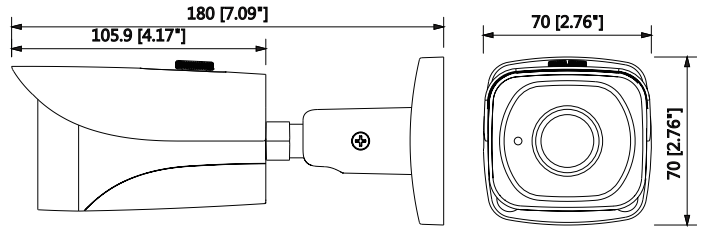
Casing	Aluminium
Dimensions	180.0 mm x 70.0 mm x 70.0 mm (7.09 in. x 2.76 in. x 2.70 in.)
Net Weight	0.35 kg (0.77 lb)
Gross Weight	0.44 kg (0.97 lb)

<sup>2</sup> 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
2 MP Camera	A21BB02	2 MP HDCVI IR Bullet Camera, 2.8 mm
	A21BB03	2 MP HDCVI IR Bullet Camera, 3.6 mm
Accessories, optional	PFA121	Junction box (For use alone or with PFA152 pole mount)
	PFA152	Pole mount (For use with PFA121 junction box)
	PFM321	12 VDC, 1 A Power Adapter
	PFM810	PoC Transceiver
	PFM820	UTC Controller

**Dimensions (mm/inch)**



**Accessories**

Optional:



PFA121  
Junction box



PFA152  
Pole mount



PFM820  
UTC Controller



PFM321  
Power Adapter



PFM810  
PoC Transceiver

Junction Mount	Pole Mount
PFA121	PFA121 + PFA152