

2 MP HDCVI Fixed Dome Camera

2 MP HDCVI IR Dome 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 30 m (98 ft) with Smart IR
- IP67 Environmental Protection
- IK10 Vandal Resistance
- 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 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.

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).

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. The camera is protected against water and dust with IP67, making it suitable for indoor or outdoor environments.

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 1280(V), 2 MP
Scanning System	Progressive
Electronic Shutter Speed	1/30 s to 1/100000 s
Minimum Illumination	Color: 0.02 Lux at F2.0 0 Lux (with IR on)
S/N Ratio	More than 65 dB
IR Distance	Up to 30 m (98 ft)
IR On/Off Control	Auto, Manual
IR LEDs	12

Lens	
Lens Type	Fixed Lens / Fixed Iris
Mount Type	Board-in
Focal Length	A21BL02: 2.8 mm A21BL03: 3.6 mm
Max Aperture	F2.0
Angle of View	A21BL02: 106° A21BL03: 82.8°
Close Focus Distance	A21BL02: 500 m (19.7 in.) A21BL03: 800 m (31.5 in.)

Pan / Tilt / Rotation	
Range	Pan: 0° to 355° Tilt: 0° to 65° Rotation: 0° to 355°

Video		
Resolution	1080p (1920 x 1080)	
Frame Rate	1080p at 30 fps 720p at 30/60 fps	
Video Output	One (1) BNC HDCVI High-definition Channel One (1) BNC CVBS, AHD or TVI Channel, switchable	
Video Transmission ²	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	

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.

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 2.6 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
Vandal Resistance	IK10

Construction	
Casing	Aluminium
Dimensions	ø109.90 mm × 81.0 mm (ø4.33 in. x 3.19 in.)
Net Weight	0.31 kg (0.68 lb)
Gross Weight	0.41 kg (0.90 lb)

Ordering Information		
Type	Part Number	Description
2 MP Camera	A21BL02	2 MP HDCVI IR Dome Camera, 2.8 mm
	A21BL03	2 MP HDCVI IR Dome Camera, 3.6 mm
Accessories, optional	PFA136	Junction box (For use alone)
	PFB203W	Wall mount (For use alone or with PFA152 pole mount)
	PFA152	Pole mount (For use with PFB203W wall mount)
	PFM321	12 VDC, 1 A Power Adapter
	PFM810	PoC Transceiver
	PFM820	UTC Controller

Accessories

Optional:



PFA136
Junction box



PFB203W
Wall mount



PFA152
Pole mount



PFM820
UTC Controller



PFM321
Power Adapter



PFM810
PoC Transceiver

Junction Mount	Pole Mount
PFA136	PFB203W + PFA152
Wall Mount	
PFB203W	

