

DH-HAC-B2A21-U-IL-A

2MP Smart Dual Light HDCVI Fixed-focal Bullet Camera



- Max. 30 fps@1080p.
- Smart Dual Light.
- 30 m illumination distance.
- Built-in MIC.
- 3.6 mm fixed lens (2.8 mm, 6 mm optional).
- CVI/CVBS/AHD/TVI switchable.
- IP67, 12 VDC.



Series Overview

The Cooper Series offers simple and highly cost-effective HDCVI solutions. It provides 24/7 reliable monitoring with high-quality image performance, saving cost on both material and labor force. It is also designed and built to the specific standards of Dahua.

Functions

Smart Dual Light

With its smart dual light mechanism, the camera automatically turns on the white light when Perimeter Protection/SMD Plus function of AI XVR detects a target in the rule area to capture clear, vivid images. When the target leaves the rule area, the camera automatically switches over from the white light to the IR light to significantly reduce light pollution.

Broadcast-quality Audio

Audio signal transmission over coaxial cables is supported by the HDCVI camera. It adopts a unique audio processing and transmission technology that restores source audio and eliminates noise, ensuring the quality and reliability of the audio information that is collected. This becomes important for video surveillance applications that use audio information as a type of supplementary evidence.

Protection (IP67, Wide Voltage)

IP67: The camera passed a series of rigorous dust and immersion tests. Its enclosure is both dust-proof and waterproof, and can function normally while being immersed in 1 m deep water for up to 30 minutes.
Wide voltage: The camera has $\pm 30\%$ input voltage tolerance (for some power supplies) and a wide voltage range, making it suitable for a variety of outdoor scenarios.

4 Signals over 1 Coaxial Cable

HDCVI technology supports 4 signals (video, audio*, data and power) which are simultaneously transmitted over a coaxial cable. Dual-way data transmission allows the HDCVI camera to interact with the XVR to perform various actions such as sending control signals and triggering alarms. HDCVI technology also supports PoC, which makes the camera easy and quick to install.

* Audio input is available for select HDCVI camera models.

Long Distance Transmission

HDCVI technology provides long distance transmission in real time without transmission loss. It supports transmission distances up to 700 m for 2-MP/5-MP/8-MP HD videos through coaxial cables, and up to 300 m through UTP cables. The results were obtained and verified through rigorous testing in Dahua's test laboratory.

Simplicity

HDCVI technology inherits the simplicity of traditional analog surveillance systems, making it a great mechanism for protecting your valuables. HDCVI can be upgraded from the traditional analog system without replacing the existing coaxial cabling. Its plug and play design enables it to produce high-definition videos during surveillance without the hassle of configuring a network.

Technical Specification

Camera

| | |
|----------------------------|--|
| Image Sensor | 2 MP CMOS |
| Max. Resolution | 1920 (H) × 1080 (V) |
| Scanning System | Progressive |
| Electronic Shutter Speed | PAL: 1/25 s–1/100,000 s; NTSC: 1/30 s–1/100,000 s |
| Min. Illumination | 0.02 lux@F2.0 (Color, 30 IRE); 0.002 lux@F2.0 (B/W, 30 IRE) ; 0 lux (Illuminator on) |
| S/N Ratio | >65 dB |
| Illumination Distance | IR: 30 m (98.43 ft); Warm light: 20 m (65.62 ft) |
| Illuminator On/Off Control | Auto;Manual |
| Illuminator Number | 2 (Warm light);2 (IR light) |
| Angle Adjustment | Pan: 0°–360° Tilt: 0°–90° Rotation: 0°–360° |

Lens

| | | | | | |
|----------------------|--|---------------------|--------------------|-------------------|-------------------|
| Lens Type | Fixed-focal | | | | |
| Lens Mount | M12 | | | | |
| Focal Length | 2.8 mm; 3.6 mm; 6 mm | | | | |
| Max. Aperture | F2.0 | | | | |
| Field of View | 2.8 mm: H: 100°; V: 54°; D: 117° 3.6 mm: H: 80°; V: 43°; D: 94° 6 mm: H: 43°; V: 24°; D: 50° | | | | |
| Iris Control | Fixed | | | | |
| Close Focus Distance | 2.8 mm: 0.5 m (1.64 ft) 3.6 mm: 0.8 m (2.62 ft) 6 mm: 2.4 m (7.87 ft) | | | | |
| DORI Distance | Lens | Detect | Observe | Recognize | Identify |
| | 2.8 mm | 44.7 m (146.65 ft) | 17.9 m (58.73 ft) | 8.9 m (29.20 ft) | 4.5 m (14.76 ft) |
| | 3.6 mm | 55.0 m (180.45 ft) | 22.0 m (72.18 ft) | 11.0 m (36.09 ft) | 5.5 m (18.04 ft) |
| | 6 mm | 102.9 m (337.60 ft) | 41.1 m (134.84 ft) | 20.6 m (67.59 ft) | 10.3 m (33.79 ft) |

Video

| | |
|------------------|---|
| Video Frame Rate | CVI: PAL: 1080p@25 fps NTSC: 1080p@30 fps AHD: PAL: 1080p@25 fps NTSC: 1080p@30 fps TVI: PAL: 1080p@25 fps NTSC: 1080p@30 fps CVBS: PAL: 960H NTSC: 960H |
| Resolution | 1080p (1920 × 1080); 960H (960 × 576/960 × 480) |
| Day/Night | Auto(ICR)/Color/B/W |
| BLC | BLC; HLC; DWDR |

| | |
|-------------------|-------------------------------|
| WDR | DWDR |
| White Balance | Auto;Area white balance |
| Gain Control | Auto;Manual |
| Noise Reduction | 2D NR |
| Illumination Mode | Smart IR&WL; WL Mode; IR Mode |
| Mirror | Yes |
| Privacy Masking | Off/On (8 areas, rectangle) |

Certification

| | |
|----------------|---|
| Certifications | CE-LVD: EN 62368-1; CE-EMC: EN 55032; EN 55035 |
|----------------|---|

Port

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| Video Output | Video output choices of CVI/TVI/AHD/CVBS by one BNC port |
| Audio Input | One channel built-in Mic |

Power

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|-------------------|----------------------------|
| Power Supply | 12 VDC ± 30% |
| Power Consumption | Max 3.3 W (12 VDC, LED on) |

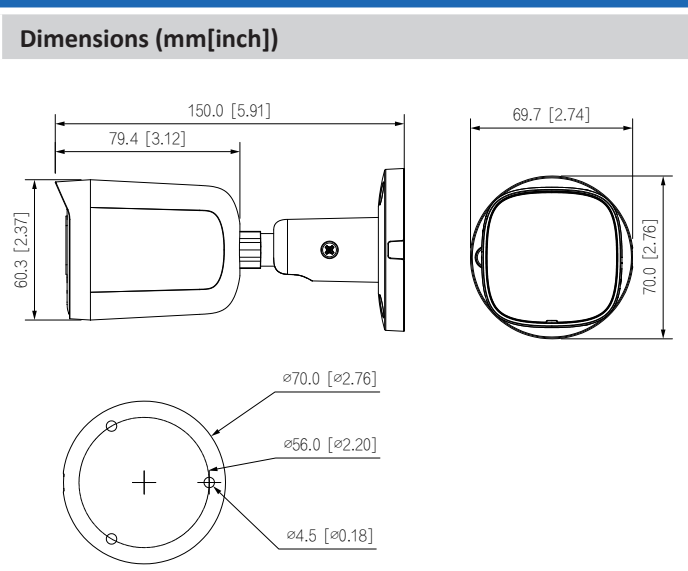
Environment

| | |
|-----------------------|--------------------------------------|
| Operating Temperature | –40 °C to +60 °C (–40 °F to +140 °F) |
| Operating Humidity | <95% (RH), non-condensing |
| Storage Temperature | –40 °C to +60 °C (–40 °F to +140 °F) |
| Storage Humidity | <95% (RH), non-condensing |
| Protection | IP67 |
| Anti-corrosion Level | Basic Protection |

Structure

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|--------------------|--|
| Casing Material | Metal |
| Product Dimensions | 150.0 mm × 69.7 mm × 70.0 mm (5.91" × 2.74" × 2.76") |
| Net Weight | 0.27 kg (0.60 lb) |
| Gross Weight | 0.33 kg (0.73 lb) |
| Installation | Wall mount; ceiling mount; vertical pole mount |

| Ordering Information | | |
|------------------------|----------------------|--|
| Type | Model | Description |
| 2MP Camera | DH-HAC-B2A21P-U-IL-A | 2MP Smart Dual Light HDCVI Fixed-focal Bullet Camera, PAL |
| | DH-HAC-B2A21N-U-IL-A | 2MP Smart Dual Light HDCVI Fixed-focal Bullet Camera, NTSC |
| Accessories (Optional) | PFA134 | Junction Box |
| | PFA130-E | Water-proof Junction Box |
| | PFA152-E | Pole Mount Bracket |
| | PFM321D | 12V 1A Power Adapter |
| | PFM800-E | Passive HDCVI Balun |
| | PFM904 | Integrated Mount Tester |



Accessories

Optional:



PFA134
Junction Box



PFA130-E
Water-proof Junction Box



PFA152-E
Pole Mount Bracket



PFM321D
12V 1A Power
Adapter



PFM800-E
Passive HDCVI Balun



PFM904
Integrated Mount Tester

| Ceiling Mount | Junction Mount | Pole Mount(Vertical) |
|---------------|----------------|----------------------|
| | | |