DH-HAC-B1A21-A
2MP HDCVI IR Bullet Camera

HDCVI

- Max 30 fps@1080p
- 3.6 mm fixed lens (2.8 mm, 6 mm optional)
- CVI/CVBS/AHD/TVI switchable
- Max. IR length 20 m, Smart IR
- Built-in Mic(-A)
- IP67, 12 VDC

Cooper Series | **2Mp** | Day/Night | Audio | IP67 | 20mIR

System Overview

Cooper Series offers simple and highly cost-effective HDCVI solutions. It offers 24/7 reliable monitoring with high-quality image performance, saving both product and labor costs. It is also highly guaranteed by Dahua quality standard.

Functions

4 Signals over 1 Coaxial Cable

HDCVI technology supports 4 signals to be transmitted over 1 coaxial cable simultaneously, i.e. video, audio*, data and power. Dual-way data transmission allows the HDCVI camera to interact with the XVR, such as sending control signal or triggering alarm. Moreover, HDCVI technology supports PoC for construction flexibility.

* Audio input is available for some models of HDCVI cameras.

Broadcast-quality Audio

Audio information is used as supplementary evidence in video surveillance applications. The HDCVI camera supports audio signal transmission over coaxial cable. In addition, it adopts unique audio processing and transmission technology that best restores source audio and eliminates noise, guaranteeing the quality and effectiveness of collected audio information.

Long Distance Transmission

HDCVI technology guarantees real-time transmission at long distance without any loss. It supports up to 700 m transmission for 2MP/5MP/8MP HD video via coaxial cable, and up to 300 m via UTP cable.

*Actual results verified by real-scene testing in Dahua's test laboratory.

Multi-language OSD

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 detect. The camera supports 11 languages for OSD menu, namely, Chinese, English, French, German,Spanish, Portuguese, Italian, Japanese, Korean, Russian and Polish.

Smart Illumination

The camera is designed with IR illumination for best lowlight performance. Smart IR is a technology to ensure brightness uniformity in B/W image under low illumination. Dahua's unique Smart IR adjusts to the intensity of camera's IR LEDs to compensate for the distance of an object, and prevents IR LEDs from overexposing images as the object comes closer to the camera.

Simplicity

HDCVI technology inherits the born feature of simplicity from traditional analog surveillance system, making itself a best choice for investment protection. HDCVI system can seamlessly upgrade the traditional analog system without replacing existing coaxial cabling. The plug and play approach enables high definition video surveillance without the hassle of configuring a network.

Protection (IP67, wide voltage)

IP67: The camera passes a series of strict test on dust and soak. It has dust-proof function, and the enclosure can works normal after soaking in 1 m deep water for 30 minutes.
Wide voltage: The camera allows ±30% (for some power supplies) input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

Technical Specification

Camera

Pixel	2 MP
Image Sensor	2 MP CMOS
Max. Resolution	1920 (H) × 1080 (V)
Scanning System	Progressive
Electronic Shutter Speed	PAL: 1/25 s–1/100000 s NTSC: 1/30 s–1/100000 s
Min. Illumination	0.04 lux/F2.0, 30 IRE, 0 lux IR on
S/N Ratio	> 65 dB
Illumination Distance	20 m (65.62 ft)
Illuminator On/Off Control	Auto
Illuminator Number	2 (IR light)
Pan/Tilt/Rotation Range	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: Horizontal: 102°; Vertical: 54°; Diagonal: 120° 3.6 mm: Horizontal: 83°; Vertical: 44°; Diagonal: 99° 6 mm: Horizontal: 53°; Vertical: 30°; Diagonal: 60°
Iris Control	Fixed
Close Focus Distance	2.8 mm: 0.6 m (1.97 ft) 3.6 mm: 0.8 m (2.62 ft) 6 mm: 1.9 m (6.23 ft)

DORI distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	45.5 m (149.29 ft)	18.2 m (59.71 ft)	9.1 m (29.86 ft)	4.6 m (15.09 ft)
	3.6 mm	53.7 m (176.18 ft)	21.5 m (70.54 ft)	10.7 m (35.10 ft)	5.4 m (17.72 ft)
	6 mm	82.8 m (271.65 ft)	33.1 m (108.60 ft)	16.6 m (54.46 ft)	8.3 m (27.23 ft)

Video

Video Frame Rate	CVI: PAL: 1080p@25 fps; 720p@25 fps; NTSC: 1080p@30 fps; 720p@30 fps; AHD: PAL: 1080p@25 fps; 720p@25 fps; NTSC: 1080p@30 fps; 720p@30 fps; TVI: PAL: 1080p@25 fps; 720p@25 fps; NTSC: 1080p@30 fps; 720p@30 fps; CVBS: PAL: 960 × 576H; NTSC: 960 × 480H
Resolution	1080p (1920 × 1080); 720p (1280 × 720); 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
Motion Detection	Yes
Smart Illumination	Yes
Mirror	Yes
Privacy Masking	Off/On (8 area, rectangle)

Certifications

Certifications	CE (EN55032, EN55024, EN50130-4) FCC (CFR 47 FCC Part 15 subpartB, ANSI C63.4-2014)

Port

Video Output	Video output choices of CVI/TVI/AHD/CVBS by one BNC port
Built-in Mic	Yes

Power

Power Supply	12 VDC ± 30%
Power Consumption	Max 2.7 W (12 VDC, IR on)

Environmental

Operating Temperature	−40 °C to +60 °C (−40 °F to +140 °F)
Operating Humidity	< 95% (non-condensation)
Storage Temperature	−40 °C to +60 °C (−40 °F to +140 °F)
Protection	IP67

Structure

Casing	Plastic throughout the whole casing
Product Dimensions	149.3 mm × 69.8 mm × 69.8 mm (5.88" × 2.75" × 2.75")
Packaging Dimensions	183 mm × 91 mm × 79 mm (7.2" × 3.58" × 3.11")
Net Weight	0.14 kg (0.31 lb)
Gross Weight	0.17 kg (0.37 lb)
Installation	Wall mount; ceiling mount; horizontal pole mount