DH-HAC-HFW2249TU-A-LED
2MP Full-color HDCVI Bullet Camera

Full-Color

* The parameters and datasheets below can only be applied to 2249-S2 series.

· 24/7 color imaging, Max. 30 fps@1080p.

· 60 m illumination distance.

· Super Adapt, 120 dB true WDR, 3D NR.

· Built-in mic.

· 3.6 mm fixed lens (2.8 mm, 6 mm optional).

· CVI/CVBS/AHD/TVI switchable.

· IP67, DC 12 V.

Pro Series	2Mp	Full Color	Audio	WDR	IP67

System Overview

Pro Series is a perfect choice for SMB solutions and projects where both high reliability and flexibility are required. All cameras are equipped with Starlight feature, 120dB true WDR and 3DNR, and are able to provide clear images and rich details even under tough lighting conditions.

Functions

Full-color

Full-color camera adopts large aperture lens and high performance sensor. With higher amount of absorbed light and advanced image processing algorithm, the camera provides 24/7 color monitoring that collects clear and vivid information,significantly increasing probability of gathering valid human, vehicle, and event evidence that can be used for further intelligent analysis.

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.

*This function is available for select models.

Wide Dynamic Range

With advanced Wide Dynamic Range (WDR) technology, Dahua HDCVI camera provides clear details in the environment of strong brightness contrast. The bright and dark area can get clear video even in high brightness environment or with backlight shadow.

Advanced 3DNR

3DNR is noise reduction technology that detects and eliminates random noises by comparing two sequential frames. Dahua's advanced 3DNR technology allows remarkable noise reduction with little impact to sharpness, especially under limited lighting condition. Besides, the advanced 3DNR effectively decreases the band width and saves the storage space.

Warm Supplemental lights

With warm supplemental LED lights, the camera is able to provide a coloful and vivid image even in total darkness. By default, the camera is set to smart light mode, in which the camera can automatically adjust the exposure time and light sensitivity simultaneously to avoid overex-posureing of the objects in the image center.

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.

Long Distance Transmission

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

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

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 work 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

Image Sensor	2MP CMOS
Max. Resolution	1920 (H) × 1080 (V)
Pixel	2MP
Scanning System	Progressive
Electronic Shutter Speed	PAL: 1/3 s–1/100,000 s NTSC: 1/4 s–1/100,000 s
S/N Ratio	> 65 dB
Min. Illumination	0.0002 Lux/F1.0, 0 Lux White Light on
Illumination Distance	60 m (196.9 ft)
Illuminator On/Off Control	Auto; manual
Illuminator Number	4
Pan/Tilt/Rotation Range	Pan: 0°–360° Tilt: 0°–90° Rotation: 0°–360°"

Lens

Lens Type	Fixed lens
Mount Type	M12
Focal Length	2.8 mm; 3.6 mm; 6 mm
Max. Aperture	F1.0
Field of View	2.8 mm: H: 106°; V: 55°; D: 125° 3.6 mm: H: 84°; V: 44°; D: 99° 6 mm: H: 57°; V: 31°; D: 65°
Iris Type	Fixed iris
Close Focus Distance	2.8 mm: 1 m (3.3 ft) 3.6 mm: 1.7 m (5.6 ft) 6 mm: 4.3m (14.1 ft)

	Lens	Detect	Observe	Recognize	Identify
DORI Distance	2.8 mm	44.9 m (147.3 ft)	17.9 m (58.7 ft)	8.9 m (29.2 ft)	4.6 m (15.1 ft)
	3.6 mm	55.2 m (181.1 ft)	22.1 m (72.5 ft)	11.0 m (36.1 ft)	5.5 m (18.0 ft)
	6 mm	82.8 m (271.7 ft)	33.1 m (108.6 ft)	16.6 m (54.5 ft)	8.3 m (27.2 ft)

*DORI (Detect, Observe, Recognize, Identify) is a standard system (EN-62676-4) for defining the ability of a person viewing the video to distinguish persons or objects within a covered area. The numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and commissioning manual/ project design tool.

Video

Frame Rate	CVI: PAL: 1080P@25fps NTSC: 1080P@30fps AHD: PAL: 1080P@25fps NTSC: 1080P@30fps TVI: PAL: 1080P@25fps NTSC: 1080P@30fps CVBS: PAL: 960H NTSC: 960H

Resolution	1080P (1920 × 1080) ; 960H (960× 576/960 × 480) ;
BLC	BLC/HLC/WDR/HLC-Pro
WDR	120dB
White Balance	Auto; Area white balance
Gain Control	Auto; manual
Noise Reduction	3D NR
Smart Light	Yes
Mirror	Off/On
Privacy Masking	Off/On (8 area, rectangle)

Certifications

Certifications	CE (EN55032, EN55024, EN50130-4, EN62368-1) FCC (CFR 47 FCC Part 15 subpartB, ANSI C63.4-2014) UL (UL60950-1+CAN/CSA C22.2 No.60950-1)

Port

Video Output	Video output choices of CVI/TVI/AHD/CVBS by one BNC port (DIP Switch)
Audio Input	One channel built-in mic

Power

Power Supply	12V ±30% DC
Power Consumption	Max 10.2W (12V DC, warm light on)

Environment

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

Structure

Casing	Metal throughout the whole casing
Camera Dimensions	244.1 mm × 90.4 mm × 90.4 mm (9.61" × 3.56" × 3.56")
Net Weight	0.76 kg (1.68 lb)
Gross Weight	1.02 kg (2.25 lb)

Ordering Information

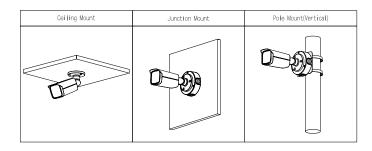| Type	Part Number	Description
2MP Camera	DH-HAC-HFW2249TUP-A-LED	2MP Full-color HDCVI Bullet Camera, PAL
	DH-HAC-HFW2249TUN-A-LED	2MP Full-color HDCVI Bullet Camera, NTSC
Accessories	PFA130-E	Junction Mount
	PFA130-E+PFA152-E	Pole Mount Bracket
	PFM800-4k	Passive HDCVI Balun
	PFM321	12V 1A Power Adapter
	PFM904	Integrated Mount Tester

Accessories

Optional:

PFA130-E
Junction Box

PFA152-E+PFA130-E
Pole Mount Bracket +
Water-proof Junction Box

PFM321
12V 1A Power Adapter

PFM904
Integrated Mount Tester

Ceiling Mount	Junction Mount	Pole Mount(Vertical)

Dimensions (mm[inch])

244.1 [9.61]

153.1 [6.03]

79.0 [3.11]

75.9 [2.99]

⌀90.4 [⌀3.56]

⌀70.0 [⌀2.76]

3−⌀4.7 [⌀0.19]