

# DH-HAC-HFW1209C-LED

2MP Full Color HDCVI Starlight Bullet Camera



- Full color starlight
- 20m lighting distance
- Max. 30fps at 1080p
- CVI/CVBS/AHD/TVI switchable
- Fixed lens (2.8 mm; 3.6 mm optional)
- IP67, 12V ± 30% DC



## Summary of the system

Experience 2MP Full HD color video and the simplicity of reusing coaxial infrastructure existing with HDCVI. Full color HDCVI starlight camera presents high quality color image with rich details even in total darkness. Offers several models of fixed lenses with OSD multilingual and switchable HD/SD output. Adopts one of the powerful white LED illuminators warm, covering an effective range of up to 20 m (65.61 ft). LEDs turn on automatically in the dark to capture detailed, full-color images 24/7 week, which guarantees authentic identification of the objects. It is an ideal choice for applications such as schools, shopping centers and parking lots.

## The functions

### Starlight in full color

The camera adopts an F1.6 large aperture lens and a 1/2.8" high-performance sensor. With a greater amount of light absorbed and an advanced image processing algorithm, the camera features impressive low-light performance with an exceptional balance between noise reduction and blur of moving object.

### Warm supplementary lights

With supplementary warm LED light, the camera can provide a vivid and colorful 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 overexposure of objects in the center of the image. Besides, the Sensitivity and intensity of the LED lights can be controlled remotely using the OSD menu.

### Broadcast-quality audio\*

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

\*\* This feature is available for select models.

### 4 signals on 1 coaxial cable

HDCVI technology supports 4 signals transmitted over 1 coaxial cable simultaneously i.e. video, audio\*, data and power. Two-way data transmission allows the HDCVI camera to interact with the XVR, such as sending control signals or triggering alarms.

\*\* Audio input is available for some HDCVI camera models.

### long distance transmission

HDCVI technology ensures long-distance and real-time transmission without any loss. Supports up to 700m for 2MP HD video over a coaxial cable and up to 300m over a UTP cable. \*

\*\* Real results verified by real scene testing in Dahua testing laboratory.

### Simplicity

HDCVI technology inherits the native characteristic of simplicity of the traditional system of analog surveillance, becoming the best option for investment protection. The system HDCVI can seamlessly upgrade traditional analog system without replacing wiring existing coax. Plug and play approach enables Full HD video surveillance without the hassle of configure a network.

### Multiple formats

The camera supports multiple video formats including HDCVI, CVBS and two other analog formats Common HD on the market. The four formats can be changed via the OSD menu or via PFM820 (UTC controller). This feature makes the camera compatible with most End users' existing HD/SD DVRs.

### Protection

The camera's excellent reliability is unmatched due to its rugged design. The camera is protected against water and dust with IP67 rating, making it suitable for environments indoors or outdoors. With a working temperature range of -40°C to +60°C (-40°F to +140°F), the camera is designed for extreme temperature environments. With a voltage tolerance of input of ±30%, this camera adapts to even the most power supply conditions unstable. Its 4KV lightning rating provides protection against the camera and its structure against lightning effects.

**Technical specification**

Camera	
Image sensor	1/2.8 inch CMOS
Effective pixels	1920(H) × 1080(V), 2MP
Scanning system	Progressive
Electronic shutter speed	PAL: 1/25s - 1/100000s NTSC: 1/30s - 1/100000s
S/N Ratio	>65dB
minimum lighting	0.01Lux / F1.6, 0Lux white light on
Illumination distance	Distance up to 20 m (65.61 ft)
Illuminator on/off control	Car; manual
Illuminator number	1
Pan/Tilt/Rotation Range	Pan: 0° -360° Tilt: 0° -180° Rotation: 0° -360°

Lens					
Lens type	Fixed-focal				
Mounting type	M12				
Focal length	2.8mm; 3.6mm				
Max. Opening	F1.6; F1.6				
Field of view	2.8mm: 126.2° × 106° × 56.5° (diagonal × horizontal × vertical); 3.6mm: 103.6° × 86.9° × 46.3° (diagonal × horizontal × vertical)				
Iris type	fixed iris				
Close focus distance	2.8mm: 0.6m (1.97ft); 3.6mm: 1.2m (3.94ft)				
DORI Distance	Lens	Detect	Notice	Recognize	Identify
	2.8mm	38.6 m (126.6 feet)	15.4 m (50.5 feet)	7.7 m (26.3 feet)	3.9m (12.8 feet)
	3.6mm	55.2 m (181.1 feet)	22.1 m (72.5 feet)	11.0m (36.1 feet)	5.5m (18.0 feet)

Video	
Frames per second	CVI: PAL: 1080P at 25fps; NTSC:1080P at 30fps; AHD: PAL: 1080P at 25fps; NTSC: 1080P@30fps TVI:  PAL: 1080P at 25fps; NTSC: 1080P@30fps CVBS: PAL: 960H; NTSC: 960H
Resolution	1080P (1920 × 1080);
BLC	BLC/WDR
WDR	DWDR
White balance	Car; manual
Gain control	Car; manual

noise reduction	2D NR
smart light	Yeah
Mirror	Off in
Privacy masking	Off/On (8 areas, rectangle)

Certifications	
Certifications	CE (EN55032, EN55024, EN50130-4, EN60950-1) FCC (CFR 47 FCC Part 15 subpart B, ANSI C63.4-2014)

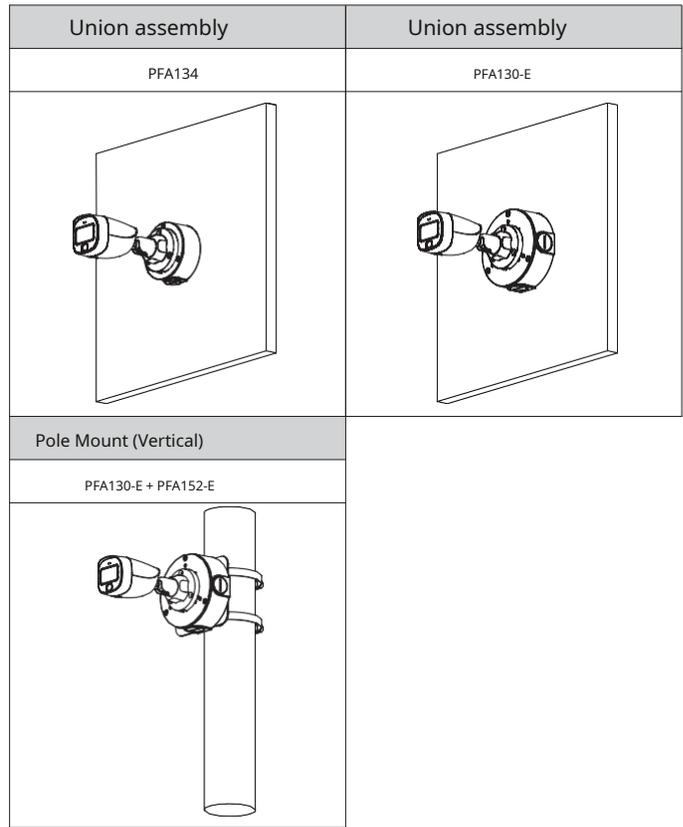
Port	
Video output	CVI/TVI/AHD/CVBS video output options via a BNC port

Can	
Power supply	12V ±30% DC
Power consumption	Max. 3.0W (12V DC, white light on)

Atmosphere	
Operating temperature	-40°C to +60°C (-40°F to 140°F); <95% (without condensation)
Storage temperature	-40°C to +60°C (-40°F to 140°F); <95% (without condensation)
Degree of protection	IP67

Structure	
Box	Metal front cover + plastic main body + plastic bracket
Chamber dimensions	161.3mm × 69.7mm × 70.0mm (6.35" × 2.75" × 2.75")
Net weight	0.20kg (0.44lb)
Gross weight	0.28kg (0.62lb)

Ordering information		
Guy	Part number	Description
2MP camera	DH-HAC-HFW1209CP- LED 2.8mm	2MP Full Color HDCVI Starlight Bullet Camera
	DH-HAC-HFW1209CN- LED 2.8mm	
	DH-HAC-HFW1209CP- LED 3.6mm	
	DH-HAC-HFW1209CN- LED 3.6mm	
Accessories	PFA134	Connections Box
	PFA130-E	IP66 junction box
	PFA152-E	Pole Mount Bracket
	PFM321D	12V 1A power adapter
	PFM904	Integrated assembly tester
	PFM820	UTC driver (only 1080P and below available)
	PFM800-E	Passive HDCVI Balun



**Accessories**

optional:



Box of  
PFA134 connections



PFA130-E Box  
IP66 connections



Mounting bracket on  
PFA152-E pole



Power adapter  
PFM321D 12V 1A



Assembly tester  
integrated PFM904



UTC Controller  
PFM820 (only 1080P and  
below  
They're available)



PFM800-E passive  
HDCVI Balun

**Dimensions (mm [inches])**

