alhua
TECHNOLOGY

DH-HAC-HFW1801TH-I4
4K HDCVI IR Bullet Camera

· 120dB True WDR, 3DNR

· Max. 4K resolution

· CVI/CVBS/AHD/TVI switchable

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

· Max. IR length 40m, Smart IR

· IP67, 12V±30%DC

Lite Series	4K	WDR	40m IR	IP67	DC 12V

System Overview

Experience 4K video surveillance with the simplicity of reusing existing coaxial infrastructure. The 4K HDCVI camera adopts a powerful Dahua ISP and advanced 1/2.7" CMOS sensor, which provides superior high quality images. In addition, the camera features broadcastquality audio to provide enhanced supplementary evidence collection.Ultra-high definition and a complete set of features makes the 4K HDCVI camera an ideal choice for mid to large-size businesses and projects where both highly reliable surveillance and construction flexibility are demanded.

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 HCVR, 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 4K and 4MP HD video via coaxial cable, and up to 300m via UTP cable.*

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

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 full HD video surveillance without the hassle of configuring a network.

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.

Multiple-formats

The camera supports multiple video formats including HDCVI, CVBS, and other two common HD analog formats in the market.   This feature makes the camera compatible with not only XVRs, but also most existing HD/SD DVRs.Note Use OSD menu to switch HDCVI to other video formats. Use PFM820 UTC Controller to switch CVBS to HDCVI video format.

Wide Dynamic Range

Embedded with industry leading wide dynamic range (WDR) technology,vivid pictures are achieved even in the most intense contrast lighting conditions. True WDR (120dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

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.

Protection

The camera's outstanding reliability is unsurpassed due to its rugged design.The camera is protected against water and dust with IP67 ranking, making it suitable for indoor or outdoor environments.Supporting ±30% 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.

Technical Specification

Camera

Image Sensor	1/2.7 inch CMOS
Effective Pixels	3840 (H) × 2160 (V), 4K
Electronic Shutter Speed	PAL:1/3s–1/100000s NTSC:1/4s–1/100000s
Minimum Illumination	0.03Lux/F2.0, 30IRE, 0Lux IR on
IR Distance	Distance up to 40 m (131.23 ft)
IR On/Off Control	Auto; manual
IR LEDs Number	1
Pan/Tilt/Rotation Range	Pan: 0°–360° Tilt: 0°–180° Rotation: 0°–360°

Lens

Lens Type	Fixed-focal
Mount Type	M12
Focal Length	2.8 mm; 3.6 mm; 6 mm
Max. Aperture	F2.0
Angle of View	2.8 mm: 125° × 105° × 56° (diagonal × horizontal × vertical) 3.6 mm: 104° × 87° × 47° (diagonal × horizontal × vertical) 6 mm: 62.4° × 54.7° × 31.3° (diagonal × horizontal × vertical)
Iris Type	Fixed iris
Min Photographic Distance	1.0 m/1.8 m/3.6 m (3.28 ft/5.90 ft/11.81 ft)

	Lens	Detect	Observe	Recognize	Identify
DORI Distance	2.8mm	74.7 m (245.07 ft)	29.9 m (98.09 ft)	14.9 m (48.88 ft)	7.5 m (24.60 ft)
	3.6mm	106.7 m (350.06 ft)	42.7 m (140.09 ft)	21.3 m (69.88 ft)	10.7 m (35.10 ft)
	6 mm	160.0 m (525 ft)	64.0 m (210 ft)	32.0 m (105 ft)	16.0 m (52 ft)

Video

Video Frame Rate	CVI: 4K@15fps; 5M@20fps; 4M@25fps/30fps; AHD: 4K@15fps; 5M@20fps; 4M@25fps/30fps; TVI: 4K@15fps; 5M@20fps; 4M@25fps/30fps; CVBS: PAL/NTSC
Resolution	4K (3840 × 2160); 5M (2592 × 1944); 4M (2560 × 1440); 960H (960 × 576/960 × 480)
Day/Night	Auto switch by ICR
BLC	BLC/HLC/WDR
WDR	120dB/WDR
White Balance	Auto; manual
Gain Control	Auto; manual
Noise Reduction	2D & 3D NR

Smart IR	Yes
Electronic Defog	Yes
Digital Zoom	4X
Mirror	Off/On
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) UL (UL60950-1+CAN/CSA C22.2 No.60950-1)

Port

Video Port	Video output choices of CVI/TVI/AHD/CVBS by one BNC port

Power

Power Supply	12V±30% DC
Power Consumption	Max 4.4W (12V DC, IR 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

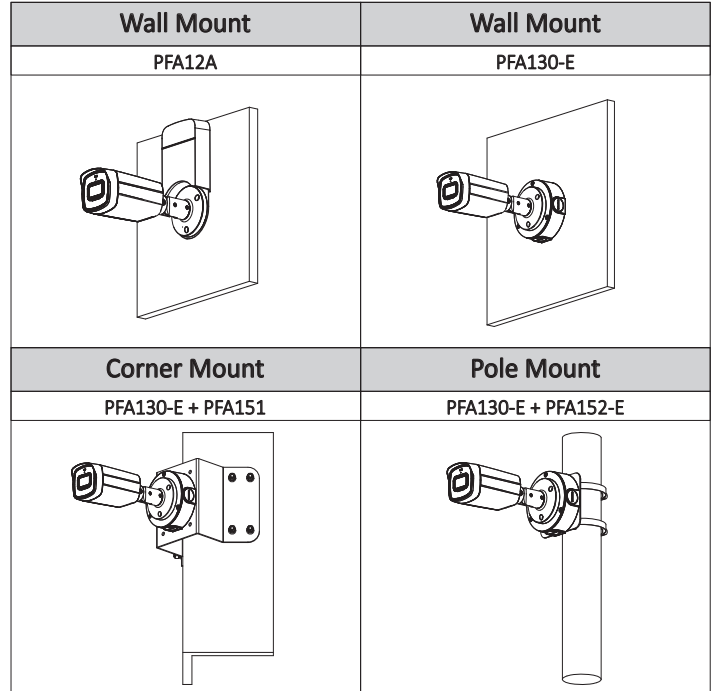|	
Casing	Metal front face + plastic main body + metal bracket
Dimensions	240.7 mm × 90.7 mm × 90.4 mm (9.48" × 3.57" × 3.56")
Net Weight	410 g (0.90 lb)
Gross Weight	616 g (1.36 lb)

Ordering Information

Type	Part Number	Description
4K Camera	DH-HAC-HFW1801THP-I4 2.8mm	4K HDCVI IR Bullet Camera, PAL
	DH-HAC-HFW1801THP-I4 3.6mm	
	DH-HAC-HFW1801THP-I4 6mm	
	DH-HAC-HFW1801THN-I4 2.8mm	4K HDCVI IR Bullet Camera, NTSC
	DH-HAC-HFW1801THN-I4 3.6mm	
	DH-HAC-HFW1801THN-I4 6mm	
Accessories	PFA130-E	Water-proof junction box (ceiling mount)
	PFA130-E + PFA152-E	Water-proof wall mount bracket + pole mount bracket (pole mount)
	PFA130-E + PFA151	Water-proof wall mount bracket+corner bracket (corner mount)
	PFA12A	Plastic junction box
	DH-PFM320D-015	12V 1.5A DC power adapter
	DH-PFM321-EN	12V 1A DC power adapter (for european countries)
	DH-PFM321-BS	12V 1A DC power adapter (for UK)
	DH-PFM321-US	12V 1A DC power adapter (for US)
	PFM820	UTC controller
	DH-PFM906	Integrated mount tester
	DH-PFM800-4K	Passive video balun

Accessories

Optional:

PFA130-E
Water-proof junction box (ceiling mount)

PFA130-E + PFA152-E
Water-proof wall mount bracket + pole mount bracket (pole mount)

PFA130-E + PFA151
Water-proof wall mount bracket+corner bracket (corner mount)

PFA12A
Plastic junction box

DH-PFM320D-015
12V 1.5A DC power adapter

DH-PFM321-EN
12V 1A DC power adapter (for european countries)

DH-PFM321-BS
12V 1A DC power adapter (for UK)

DH-PFM321-US
12V 1A DC power adapter (for US)

PFM820
UTC controller

DH-PFM906
Integrated mount tester

DH-PFM800-4K
Passive video balun

Wall Mount	Wall Mount
PFA12A	PFA130-E
Corner Mount	**Pole Mount**
PFA130-E + PFA151	PFA130-E + PFA152-E

Dimensions (mm[inch])

240.7 [9.48]
146.4 [5.76]
141.0 [5.55]
90.7 [3.57]
80.2 [3.16]
76.2 [3.00]
90.4 [3.56]

⌀90.7 [⌀3.57]
⌀70.0 [⌀2.76]
3-⌀4.7 [⌀0.19]