Manuals+ — User Manuals Simplified.

DH-IPC-HFW1431TL-
A-IL Entry Smart
Dual Light Fixed
Focal Bullet
Network Camera

Dahua DH-IPC-HFW1431TL-A-IL Entry Smart Dual Light Fixed Focal Bullet Network Camera Owner's Manual

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Dahua DH-IPC-HFW1431TL-A-IL Entry Smart Dual Light Fixed Focal Bullet Network Camera

FAQs

Q: How far can the camera illuminate in night vision mode?

A: The camera can illuminate up to 30 meters (98.43 feet) in night vision mode.

Q: How does the Smart Dual Light technology work?

A: The Smart Dual Light technology uses smart algorithms to switch between IR illuminator and white light based on detected targets, providing full-color video when necessary.

Q: What video compression formats are supported by the camera?

A: The camera supports H.265, H.264, H.264H, H.264B, and MJPEG for video compression.

Series Overview

With features of simple installation, easy operation, and a high performance-cost ratio, the Dahua Entry series network camera is applicable to small and medium-sized scenes, such as homes/residences, small-sized retail stores, and other small and medium-sized enterprises.

Functions

Smart Dual Light

Dahua Smart Dual Light technology adopts a smart algorithm to detect targets. Usually, the IR illuminator is on at night; when the target appears in the monitoring area, the white light is on, and the camera records the full-color video and information of key events. That is, the camera links snapshots and videos with full-color images. When the target is out of the monitoring area, the white light is off and the IR illuminator is on, which reduces light pollution efficiently.

Human Detection

Dahua intelligent algorithms extract moving human targets from videos and filter out alarms that are triggered by non-human targets to increase the accuracy and effectiveness of alarms.

Smart H.265+ & Smart H.264+

With an advanced scene-adaptive rate control algorithm, Dahua smart encoding technology realizes higher encoding efficiency than H.265 and H.264, provides high-quality video, and reduces the cost of storage and transmission.

- 4-MP 1/2.9″ CMOS image sensor, low luminance, and high definition image.
- Outputs max. 4 MP (2560 × 1440)@25/30 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in IR LED and warm light, the max. IR illumination distance is 30 m and warm light distance is 30 m.
- WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes.
- ROI, SMART H.264 +/H.265+, flexible coding, applicable to various bandwidth and storage environments.
- Abnormality detection: Motion detection, video tampering, audio detection, network disconnection, IP conflict and illegal access.
- Built-in Mic.
- 12 VDC/PoE power supply,
- IP67 protection.
- Supports human detection.
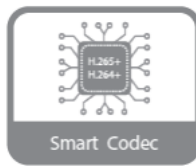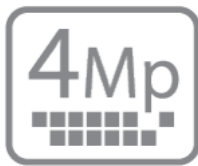
WDR

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

Cyber Security

- Dahua network cameras employ a series of security technologies, including security authentication and authorization, access control protocols, trusted protection, encrypted transmission, and encrypted storage. These technologies improve the camera's defense against external cyber threats and prevent malicious programs from compromising the device.

Protection (IP67, Wide Voltage)

- IP67: The camera passes a series of strict tests on dust and soak. It has a dust-proof function, and the enclosure can work normally 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 environments with instable voltage.

Technical Specification

Camera

Image Sensor	1/2.9″ CMOS
Max. Resolution	2560 (H) × 1440 (V)
ROM	128 MB
RAM	128 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.0006 **lux@F1.6** (Color,30 IRE) 0.0006 **lux@F1.6** (B/W,30 IRE) 0 lux (Illuminator on)
S/N Ratio	>56 dB
Illumination Distance	Up to 30 m (98.43 ft) (IR LED) Up to 30 m (98.43 ft) (Warm light)
Illuminator On/Off Control	Auto;Manual
Illuminator Number	2 (IR LED); 2 (Warm 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			
Max. Aperture	F1.6			
Field of View	2.8 mm: H: 94°; V: 52°; D: 111° 3.6 mm: H: 78°; V: 41°; D: 94°			
Iris Control	Fixed			
Close Focus Distance	2.8 mm: 1.1 m (3.61 ft) 3.6 mm: 1.7 m (5.58 ft)			
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	64.0 m (209.97 ft)	25.6 m (83.98 ft)	12.8 m (41.99 ft)	6.4 m (21.00 ft)
	3.6 mm	85.4 m (280.18 ft)	34.2 m (112.20 ft)	17.1 m (56.10 ft)	8.5 m (27.89 ft)

Intelligence

Human Detection	Support the classification and accurate detection of human
Smart Search	Work together with Smart NVR to perform refined intelligent search, event extraction, and merging to event videos

Video

Video Compression	H.265; H.264; H.264H; H.264B; MJPEG (only supported by the sub stream)
Smart Codec	Smart H.265+; Smart H.264+
Video Frame Rate	Main stream: 2560 × 1440@(1–25/30 fps) Sub stream: 704 × 576@(1–25 fps)/704 × 480@(1–30 fps) *The values above are the max. frame rates of each stream; for multiple streams, the values will be subjected to the total encoding capacity.

Stream Capability	2 streams
Resolution	4M (2560 × 1440); 3M (2304 × 1296); 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)
Bit Rate Control	CBR/VBR
Video Bit Rate	H.264: 32 kbps–4096 kbps H.265: 12 kbps–4096 kbps
Day/Night	Auto(ICR)/Color/B/W
BLC	Yes
HLC	Yes
WDR	120 dB

White Balance	Auto; natural; street lamp; outdoor; manual; regional custom
Gain Control	Auto;Manual
Noise Reduction	3D NR
Motion Detection	OFF/ON (4 areas, rectangular)
Region of Interest (RoI)	Yes (4 areas)
Smart Illumination	Yes
Image Rotation	0°/180°
Mirror	Yes
Privacy Masking	4 areas

Audio

Built-in MIC	Yes, built-in Mic
Audio Compression	G.711a; G.711Mu; PCM; G.726

Alarm

Alarm Event	Network disconnection; IP conflict; illegal access; motion detection; video tampering; audio detection; SMD (human); security exception

Network

Network Port	RJ-45 (10/100 Base-T)

SDK and API	Yes
Network Protocol	IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; DHCP; DNS; DDNS; NTP; Multicast; ICMP; IGMP; P2P
Interoperability	ONVIF (Profile S; Profile T); CGI
User/Host	6 (Total bandwidth: 24 M)
Storage	FTP
Browser	IE; Chrome; Firefox
Management Software	Smart PSS Lite; DSS; DMSS
Mobile Client	iOS;Android
Cyber Security	Configuration encryption;Trusted execution;Digest;Security logs;HTTPS;Trusted upgrade;WSSE;Trusted boot;Account lockout;Generation and importing of X.509 certification;Video encryption
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Certification	
Certifications	CE-LVD: EN62368-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU
Power	
Power Supply	12 VDC/PoE (802.3af)
Power Consumption	Basic: 2 W (12 VDC); 2.9 W (PoE) Max. (H.265 + intelligence on+ WDR + illuminator intensity): 6.4 W (12 VDC); 7.7 W (PoE)
Environment	

Operating Temperature	–40 °C to +60 °C (–40 °F to +140 °F)
Operating Humidity	≤95%
Storage Temperature	–40 °C to +60 °C (–40 °F to +140 °F)
Storage Humidity	≤95%
Protection	IP67
Structure	
Casing Material	Metal+plastic
Product Dimensions	197.9 mm × 80.2 mm × 76.2 mm (7.79″ × 3.16″ × 3.00″) (L × W × H)
Net Weight	0.31 kg (0.68 lb)
Gross Weight	0.45 kg (0.99 lb)

Ordering Information

Type	Model	Description
4MP Camera	DH-IPC-HFW1439TL1-A-IL	4MP Entry Smart Dual Light Fixed- focal Bullet Network Camera
Accessories (Optional)	PFA134	Junction Box
	PFA152-E	Pole Mount Bracket
	PFM321D	12 VDC 1A Power Adapter
	PFM900-E	Integrated Mount Tester

Accessories

Optional:
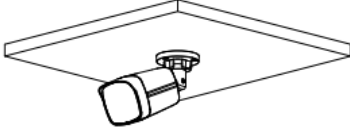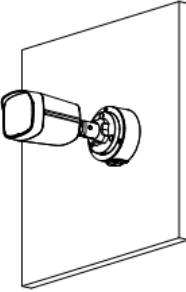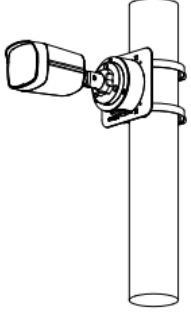
PFA134
Junction Box

PFA152-E
Pole Mount
Bracket

PFM321D
12 VDC 1 A
Power Adapter

PFM900-E
Integrated
Mount Tester

Ceiling Mount	Wall Mount	Pole Mount(Vertical)

Dimensions

(mm[inch])
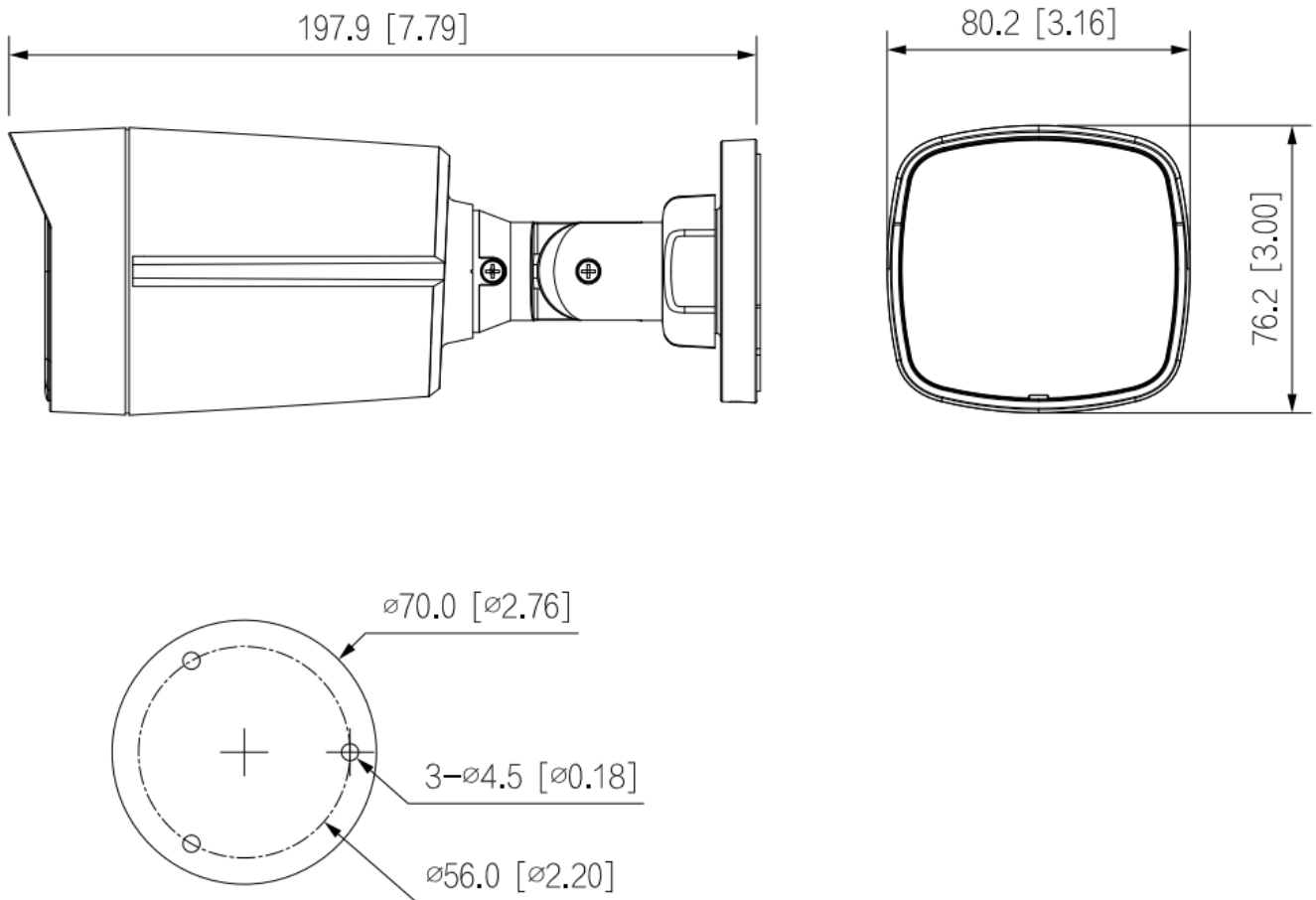
MORE INFO

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- **www.dahuasecurity.com**

Documents / Resources

Dahua DH-IPC-HFW1431TL-A-IL Entry Smart Dual Light Fixed Focal Bullet Network Camera [pdf] Owner's Manual
DH-IPC-HFW1439TL1P-A-IL, DH-IPC-HFW1431TL-A-IL, DH-IPC-HFW1431TL-A-IL Entry Smart Dual Light Fixed Focal Bullet Network Camera, DH-IPC-HFW1431TL-A-IL, Entry Smart Dual Light Fixed Focal Bullet Network Camera, Light Fixed Focal Bullet Network Camera, Fixed Focal Bullet Network Camera, Bullet Network Camera, Network Camera, Camera

References

- **Dahua Technology - World Leading Video-Centric AIoT Solution & Service Provider**
- **User Manual**