

# DH-IPC-HFW2231M-AS-I2-B-S2

## 2MP Lite IR Fixed-focal Bullet Network Camera



- Intelligent detection: Intrusion, tripwire
- 2MP, 1/2.8" CMOS image sensor, low illuminance, high image definition
- Outputs max. 2MP (1920 × 1080) @25/30 fps
- H.265 codec, high compression rate, ultra-low bit rate
- Built-in LEDs, max. illumination distance: 50 m
- ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments
- Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes
- Abnormality detection: Motion detection, video tampering, scene changing, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, voltage detection
- Alarm: 2 in, 2 out; audio: 1 in, 1 out; supports max. 256 GB Micro SD card
- 12V DC/PoE power supply; 12V DC power output, max. current 165mA
- IP67 protection



### Series Overview

With upgraded H.265 encoding technology, Dahua Lite series network camera has efficient video encoding capacity, which saves bandwidth and storage space. This camera adopts the latest starlight technology and displays better color image in the condition of low illumination. It supports SD card storage, dust-proof function, waterproof function and vandal-proof function, complying with the standards of IP67 (Supported by some select models).

### Functions

#### Smart H.265+ & Smart H.264+

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

#### WDR

With advanced Wide Dynamic Range (WDR) technology, Dahua network 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.

#### Starlight

With advanced image processing technology and optical technology, Dahua Starlight technology can provide clear colorful video in the environment of low illuminance. It widely applies to various environments of low illuminance.

### IVS

With advanced video algorithm, Dahua IVS technology supports intelligent functions, such as tripwire and intrusion.

### Cyber Security

Dahua network camera is equipped with a series of key security technologies, such as security authentication and authorization, access control, trusted protection, encrypted transmission, and encrypted storage, which improve its security defense and data protection, and prevent malicious programs from invading the device.

### 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  $\pm 30\%$  (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	1/2.8"2Megapixel progressive CMOS
Max. Resolution	1920 (H) × 1080 (V)
ROM	128 MB
RAM	128 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.002Lux@F1.6
S/N Ratio	>56 dB
Illumination Distance	50 m (164 ft)
Illuminator On/Off Control	Auto/Manual
Illuminator Number	2 (IR LED)

#### Lens

Lens Type	Fixed-focal				
Mount Type	M12				
Focal Length	3.6 mm; 6 mm				
Max. Aperture	3.6 mm: F1.6 6 mm: F1.6				
Field of View	3.6 mm: Horizontal 87° × Vertical 46° × Diagonal 104° 6 mm: Horizontal 54° × Vertical 28° × Diagonal 63°				
Iris Type	Fixed				
Close Focus Distance	3.6 mm: 1.2m (3.9ft) 6 mm: 2.5m (8.2ft)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	3.6mm	55.2 m (181.1 ft)	22.1 m (72.5 ft)	11.0 m (36.1 ft)	5.5 m (18.0 ft)
	6mm	82.8 m (271.7 ft)	33.1 m (108.6 ft)	16.6 m (54.5 ft)	8.3m (27.2 ft)

#### Smart Event

IVS	Tripwire; intrusion
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#### Video

Video Compression	H.265; H.264; H.264B; MJPEG (only supported by the sub stream)
Smart Codec	Smart H.265+ / Smart H.264+
Video Frame Rate	Main stream: 1920 × 1080 (1 fps–25/30 fps) Sub stream: 704 × 576 (1 fps–25 fps) 704 × 480 (1 fps–30 fps)
Stream Capability	2 streams
Resolution	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–6144 kbps H.265: 12 kbps–6144 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°/90°/180°/270° (Support 90°/270° with 1080p resolution and lower.)
Mirror	Yes
Privacy Masking	4 areas

#### Audio

Audio Compression	G.711A; G.711Mu; G.726
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#### Alarm

Alarm Event	No SD card; SD card full; SD card error; network disconnection; IP conflict; motion detection; video tampering; tripwire; intrusion; illegal access; voltage detection; audio detection; safety exception; local alarm
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#### Network

Network	RJ-45 (10/100 Base-T)
SDK and API	Yes
Cyber Security	Video encryption; firmware encryption; configuration encryption; Digest; WSSE; account lockout; security logs; IP/MAC filtering; generation and importing of X.509 certification; syslog; HTTPS; 802.1x; trusted boot; trusted execution; trusted upgrade
Protocol	HTTP; TCP; ARP; RTSP; RTP; UDP; RTCP; SMTP; FTP; DHCP; DNS; DDNS; PPPoE; IPv4/v6; QoS; UPnP; NTP; RTMP; Multicast; SFTP; ICMP; IGMP; Bonjour
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone; Genetec
User/Host	20 (Total bandwidth: 64 M)
Storage	FTP; Micro SD card (support max. 256 G); NAS; SFTP
Browser	IE Chrome Firefox
Management Software	Smart PSS; DSS; DMSS
Mobile Phone	iOS; Android

#### Certification

Certifications	CE-LVD: EN62368-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B
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#### Port

Audio Input	1 channel (RCAport)
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Audio Output	1 channel (RCAport)
Alarm Input	2 channels in: 5mA 3V-5V DC
Alarm Output	2 channels out: 300mA 12V DC
<b>Power</b>	
Power Supply	12V DC/PoE (802.3af)
Power Consumption	<9.9W
<b>Environment</b>	
Operating Conditions	-40°C to +60°C (-40°F to +140°F)/Less than 95% RH
Storage Conditions	-40°C to +60°C (-40°F to +140°F)
Protection	IP67

**Structure**

Casing	Metal + plastic
Dimensions	194.1 mm × 96.4 mm × 89.5 mm (7.6" × 3.8" × 3.5") (L × W × H)
Net Weight	0.725 kg (1.6 lb)
Gross Weight	1.215 kg (2.7 lb)

**Ordering Information**

Type	Model	Description
2MP Camera	DH-IPC-HFW2231MP-AS-I2-B-S2	2MP Lite IR Fixed-focal Bullet Network Camera, PAL
	DH-IPC-HFW2231MN-AS-I2-B-S2	2MP Lite IR Fixed-focal Bullet Network Camera, NTSC
Accessories (Standard)	PFB122W	Wall Mount
Accessories (optional)	PFM321D	12V DC 1A Power Adapter
	PFM114	TLC SD Card

**Accessories**

**Standard:**



PFB122W  
Wall Mount

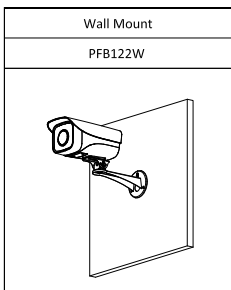
**Optional:**



PFM321D  
12V DC 1A Power Adapter



PFM114  
TLC SD Card



**Dimensions (mm[inch])**

