

# DH-IPC-HFW2230M-AS-LED-B

2MP Lite Full-color Fixed-focal Bullet Network Camera



- 2MP, 1/2.8" CMOS image sensor, low illuminance, high image definition
- Outputs 2MP (1920 × 1080)@25/30 fps
- H.265 codec, high compression rate, ultra-low bit rate
- Built-in LEDs, max LED distance: 20 m
- ROI, SMART H.264/H.265, flexible coding, applicable to various bandwidth and storage environments
- Rotation mode, DWDR, 3D DNR, 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. 128 GB Micro SD card
- 12V DC/PoE power support; 12V DC power output, max. current 165mA
- IP67 protection



## System 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 to the standards of IP67.

## Functions

### Smart Codec

Adopting advanced algorithm of auto stream control according to the environment, Dahua smart encoding technology realizes the higher efficiency than (H.265 & H.264), providing high-quality video, and reducing the cost of storage and transmission.

### Full-color

With high-performance sensor and large aperture lens, Dahua Full-color technology can display clear colorful image in the environment of ultra-low illuminance. With this photosensitivity technology, the camera can capture more available light, and display more colorful image details.

### Image Flip

Dahua Starlight technology mainly applies to the environment of low illumination, and it can provide clear colorful video. Even in the environment of min. illumination, the technology can guarantee the good image effect.

### Motion Detection

When moving objects appear in the monitoring image, Dahua Motion Detection (General) technology triggers alarm or records.

### 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  $\pm 30\%$  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
Effective Pixels	1920 (H) × 1080 (V)
ROM	16 MB
RAM	128 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100000 s
Min. Illumination	0.002 Lux@F1.6
LED Distance	20 m (65.6 ft)
LED On/Off Control	Auto/Manual
LEDs Number	2

### 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: Pan 87° × Tilt 46° × Diagonal 104° 6 mm: Pan 53° × Tilt 30° × Diagonal 60°				
Iris Type	Fixed				
Close Focus Distance	3.6mm: 1.2 m (3.9 ft) 6mm: 2.5 m (8.2 ft)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	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 (54.4 ft)	8.3 m (27.2 ft)

### Video

Video Compression	H.265; H.264; H.264B; MJPEG
Smart Codec	Yes
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	Color/B/W

BLC	Yes
HLC	Yes
WDR	DWDR
White Balance	Auto/natural/street lamp/outdoor/manual/regional custom
Gain Control	Auto/Manual
Noise Reduction	3D DNR
Motion Detection	OFF/ON (4 areas, rectangular)
Region of Interest(Rol)	Yes (4 areas)
Smart IR	Yes
Image Rotation	0°/90°/180°/270° (Supports 90°/270° with 1080p resolution and lower.)
Mirror	Yes
Privacy Masking	4 areas

### Network

Network	RJ-45 (10/100 Base-T)
Protocol	IPv4; IPv6; HTTP; HTTPS; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; PPPoE; 802.1x; Bonjour
Interoperability	ONVIF(Profile S/Profile G);CGI; P2P; Genetec
User/Host	20
Edge Storage	FTP; SFTP; Micro SD Card (support max. 128 GB); NAS
Browser	IE: IE11 and earlier Chrome: 42 and earlier Firefox: 52 and earlier
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 (RAC port)
Audio Output	1 channel (RAC port)
Alarm Input	2 channels In: 5mA 5V DC
Alarm Output	2 channels Out: 300mA 12V DC

### Power

Power Supply	12V DC/PoE (802.3af)
Power Consumption	< 10W

### Environment

Operating Conditions	–40°C to +60°C (–40°F to +140°F)/less than ≤ 95% RH
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Storage Temperature	-40°C to +60°C (-40°F to +140°F)
Protection Grade	IP67
<b>Structure</b>	
Casing	Metal + plastic
Dimensions	194.1 mm × 96.4 mm × 89.5 mm (7.6" × 3.8" × 3.5") (L × W × H)
Net Weight	0.72 kg (1.6 lb)
Gross Weight	1.25 kg (2.8 lb)

Ordering Information		
Type	Part Number	Description
2MP Camera	DH-IPC-HFW2230MP-AS-LED-B	2MP Lite Full-color Fixed-focal Bullet Network Camera, PAL
	DH-IPC-HFW2230MN-AS-LED-B	2MP Lite Full-color Fixed-focal Bullet Network Camera, NTSC
Accessories (Standard)	PFB122W	Wall Mount
Accessories (optional)	PFM321D	DC12V1A Power Adapter
	PFM114	TLC SD Card

**Accessories**

**Standard:**



PFB122W  
Wall Mount

**Accessories**

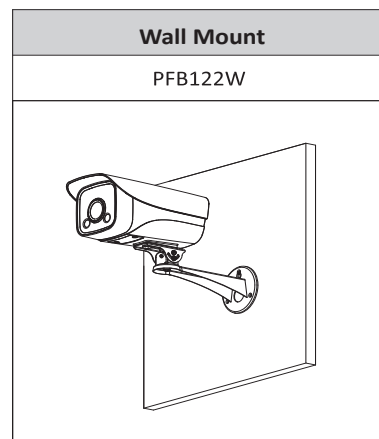
**Optional:**



PFM321D  
DC12V1A Power  
Adapter



PFM114  
TLC SD Card



**Dimensions (mm[inch])**

