

# DH-IPC-HDW2230T-A-E

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



### Series Overview

Lite features of simple installation, easy operation, and high performance-cost ratio, Dahua 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 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.

#### Smart Illumination

Dahua Smart Illumination technology can display image in the environment of low illuminance or completely dark environment. According to the distance of the targets, the camera adjusts illuminations intensity automatically to display the details of the moving target.

#### Motion Detection

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

#### 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.

- 2-MP 1/2.8" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 2 MP (1920 × 1080)@25/30 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in IR LED, and the max. illumination distance is 30 m.
- ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments.
- Rotation mode, DWDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes.
- Abnormality detection: Motion detection, video tampering, network disconnection, IP conflict, audio detection and illegal access.
- Built-in MIC.
- 12 VDC/PoE power supply.
- IP67 protection.



#### 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 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 environment with instable voltage.

Technical Specification										
Camera										
Image Sensor	1/2.8" CMOS									
Max. Resolution	1920 (H) × 1080 (V)									
ROM	16 MB									
RAM	64 MB									
Scanning System	Progressive									
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s									
Min. Illumination	0.01 lux@F2.0 (Color, 30 IRE) 0.001 lux@F2.0 (B/W, 30 IRE) 0 lux (Illuminator on)									
S/N Ratio	> 56 dB									
Illumination Distance	30 m (98.43 ft) (IR)									
Illuminator On/Off Control	Auto; manual									
Illuminator Number	1(IR LED)									
Pan/Tilt/Rotation Range	Pan: 0°–355° Tilt: 0°–78° Rotation: 0°–355°									
Lens										
Lens Type	Fixed-focal									
Lens Mount	M12									
Focal Length	2.8 mm; 3.6 mm									
Max. Aperture	2.8 mm: F2.0 3.6 mm: F2.0									
Field of View	2.8 mm: H: 102°; V: 54°; D: 120° 3.6 mm: H: 88°; V: 47°; D: 104°									
Iris Control	Fixed									
Close Focus Distance	2.8 mm: 0.5 m (1.64 ft) 3.6 mm: 0.8 m (2.62 ft)									
DORI Distance	Lens	Detect	Observe	Recognize	Identify					
	2.8 mm	38.6 m (126.64 ft)	15.4 m (50.52 ft)	7.7 m (25.26 ft)	3.9 m (12.80 ft)					
	3.6 mm	49.7 m (163.06 ft)	19.9 m (65.29 ft)	9.9 m (32.48 ft)	5.0 m (16.40 ft)					
	*DORI (Detect, Observe, Recognize, Identify) is a standard system (EN-62676-4) for defining the ability of a person viewing the video to distinguish persons or objects within a covered area. The numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and commissioning manual/project design tool.									
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: 1920 × 1080@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										
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										
DWDR										
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										
Built-in MIC										
Yes										
Audio Compression										
G.711A; G.711Mu; G.726										
Alarm										
Alarm Event										
Network disconnection; IP conflict; illegal access; motion detection; video tampering; audio detection; security exception										
Network										
Network Port										
RJ-45 (10/100 Base-T)										
SDK and API										
Yes										
Cyber Security										
Configuration encryption; Trusted execution; Digest; Security logs; Trusted upgrade; WSSE; Trusted boot; Account lockout; Generation and importing of X.509 certification; Video encryption										
Network Protocol										
IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP; SMTP; FTP; DHCP; DNS; DDNS; NTP; Multicast; ICMP; IGMP										
Interoperability										
ONVIF (Profile S); CGI; P2P; Genetec										
User/Host										
6 (Total bandwidth: 36 M)										
Storage										
FTP										
Browser										
IE Chrome Firefox										
Management Software										
Smart PSS; DSS; DMSS										
Mobile Client										
iOS;Android										
Certification										

<b>Certifications</b>	CE-LVD: EN 62368-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B
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**Power**

<b>Power Supply</b>	12 V DC/PoE (802.3af)
<b>Power Consumption</b>	Basic: 1.2 W (12 VDC); 2 W (PoE) Max. (ICR + H.265 + IR intensity): 3.1 W (12 VDC); 4.1 W (PoE)

**Environment**

<b>Operating Temperature</b>	-40 °C to +60 °C (-40 °F to +140 °F)
<b>Operating Humidity</b>	≤ 95%
<b>Storage Temperature</b>	-40 °C to +60 °C (-40 °F to +140 °F)
<b>Protection</b>	IP67

**Structure**

<b>Casing</b>	Metal
<b>Product Dimensions</b>	85.6 mm × Φ94.0 mm (3.4" × Φ3.7")
<b>Net Weight</b>	0.32 kg (0.7 lb)
<b>Gross Weight</b>	0.43 kg (0.9 lb)

**Ordering Information**

Type	Model	Description
IP CAMERA	DH-IPC-HDW2230T-A-S5	2 MP Lite IR Fixed-focal Eyeball Network Camera
Accessories (optional)	PFA13A-E	Junction Box
	PFA130-E	IP66 Junction Box
	PFB205W	Wall Mount Bracket
	PFA152-E	Pole Mount Bracket
	PFA106	Mount Adapter
	PFB220C	Ceiling Mount Bracket
	PFM321D	12 VDC 1A Power Adapter
	PFM900-E	Integrated Mount Tester

**Accessories**

**Optional:**



PFA13A-E  
Junction Box



PFA130-E  
IP66 Junction Box



PFB205W  
Wall Mount Bracket



PFA152-E  
Pole Mount Bracket



PFA106  
Mount Adapter



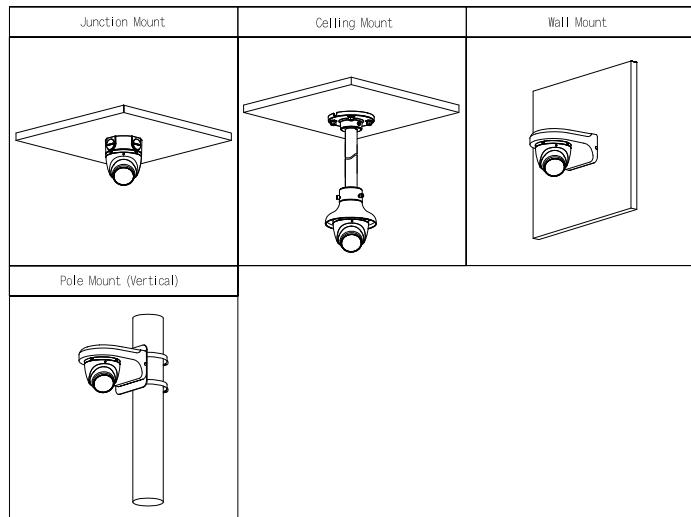
PFB220C  
Ceiling Mount Bracket



PFM321D  
12 VDC 1A Power  
Adapter



PFM900-E  
Integrated Mount  
Tester



**Dimensions (mm[inch])**

