

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 $\pm 30\%$ (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" 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

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

Power	
Power Supply	12 V DC/PoE (802.3af)
Power Consumption	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	
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)
Protection	IP67

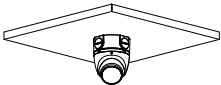
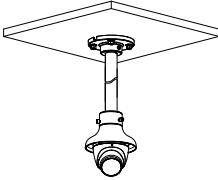
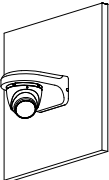
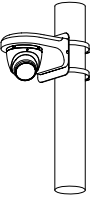
Structure	
Casing	Metal
Product Dimensions	85.6 mm × Φ94.0 mm (3.4" × Φ3.7")
Net Weight	0.32 kg (0.7 lb)
Gross Weight	0.43 kg (0.9 lb)

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	

Junction Mount	Ceiling Mount	Wall Mount
		
Pole Mount (Vertical)		
		

Dimensions (mm[inch])

