

DH-IPC-D1E29-A-IL

2MP ECO Dual Light Fixed-focal Dome Network Camera



Series Overview

The Dahua ECO Series camera is designed with simplicity for practicality. Plug and play, it immediately outputs images when connected to the Dahua NVR. It supports remote monitoring through the Dahua mobile app, and triggers alarms for motion detection, video tampering, and security exception, providing you with a convenient and secure IP service.

Functions

Smart Dual Light

Dahua Smart Dual Light technology adopts 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 snapshot and video with full-color image. 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.

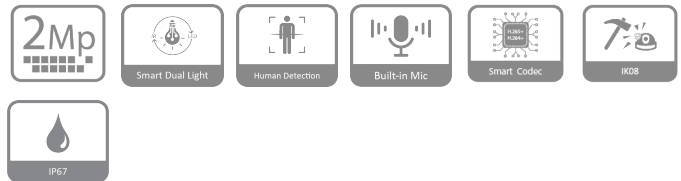
Human Detection

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

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.

- 2-MP 1/3" 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 warm light, and the max. IR distance is 30 m, the max. warm light distance is 30 m.
- DWDR, 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.



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	1/3" 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	0.005 lux@F1.6 (Color, 30 IRE) 0.0005 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) Up to 30 m (98.43 ft) (Warm light)
Illuminator On/Off Control	Auto; Manual
Illuminator Number	3 (IR LED); 4 (Warm light)
Angle Adjustment	Pan: 0°–35° Tilt: 0°–65° Rotation: 0°–35°

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: 95°; V: 53°; D: 110° 3.6 mm: H: 78°; V: 42°; D: 91°
Iris Control	Fixed
Close Focus Distance	2.8 mm: 0.8 m (2.62 ft) 3.6 mm: 1.2 m (3.94 ft)

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	46.5 m (152.56 ft)	18.6 m (61.02 ft)	9.3 m (30.51 ft)	4.6 m (15.09 ft)
	3.6 mm	58.9 m (193.24 ft)	23.5 m (77.10 ft)	11.8 m (38.71 ft)	5.9 m (19.36 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.					

Intelligence	
Human Detection	Support the classification and accurate detection of human
Smart Search	Work together with Smart NVR to perform refine 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: 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.
Streaming 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	VBR; CBR
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	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 (Rol)	Yes (4 areas)
Smart Illumination	Yes
Smart Dual Light	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; Auto Registration
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; DoLynk Care
Mobile Client	iOS;Android
Security	Digest;WSSE;Account lockout;Security logs;Generation and importing of X.509 certification;HTTPS;Trusted boot;Trusted execution;Trusted upgrade

Certification

Certifications	CE-LVD: EN62368-1; CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU
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Power

Power Supply	12 VDC (±30%); PoE (802.3af)
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Power Consumption	Basic: 2.3 W (12 VDC); 3.1 W (PoE); Max.: 6.8 W (12 VDC); 7.9 W (PoE) (H.265 + intelligence on + illuminator intensity)
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Environment

Operating Temperature	-40 °C to +50 °C (-40 °F to +122 °F)
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Operating Humidity	≤ 95% (RH), non-condensing
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Storage Temperature	-40 °C to +50 °C (-40 °F to +122 °F)
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Storage Humidity	≤ 95% (RH), non-condensing
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Protection	IP67
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Anti-corrosion Level	Basic Protection *The products are designed for general use and are applicable even in areas with no specific requirements for anti-corrosion protection.
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Structure

Casing Material	Plastic
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Product Dimensions	81.0 mm × Φ109.9 mm (3.19" × Φ4.33")
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Net Weight	0.33 kg (0.73 lb)
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Gross Weight	0.48 kg (1.06 lb)
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Ordering Information

Type	Model	Description
IP CAMERA	DH-IPC-D1E29-A-IL	2MP ECO Dual Light Fixed-focal Dome Network Camera
Accessories (Optional)	DH-PFA109	Mount Adapter
	DH-PFB220C	Ceiling Mount Bracket
	DH-PFB305W	Wall Mount Bracket
	DH-PFA151	Corner Mount Bracket
	DH-PFA150	Pole Mount Bracket
	DH-PFB2203W	Wall Mount Bracket
	DH-PFA156	Pole Mount Bracket
	DH-PFA136	Junction Box
	DH-PFM321-EN	DC12V1A power adapter
	DH-PFM325D-1210EN	DC12V 1A Power Adapter
DH-PFM320D-EN	DC12V2A power adapter	

Type	Model	Description
Accessories (Optional)	PFM900-E	Integrated Mount Tester

Accessories

Optional:



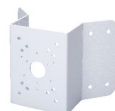
DH-PFA109
Mount Adapter



DH-PFB220C
Ceiling Mount Bracket



DH-PFB305W
Wall Mount Bracket



DH-PFA151
Corner Mount Bracket



DH-PFA150
Pole Mount Bracket



DH-PFB2203W
Wall Mount Bracket



DH-PFA156
Pole Mount Bracket



DH-PFA136
Junction Box



DH-PFM321-EN
DC12V1A power adapter



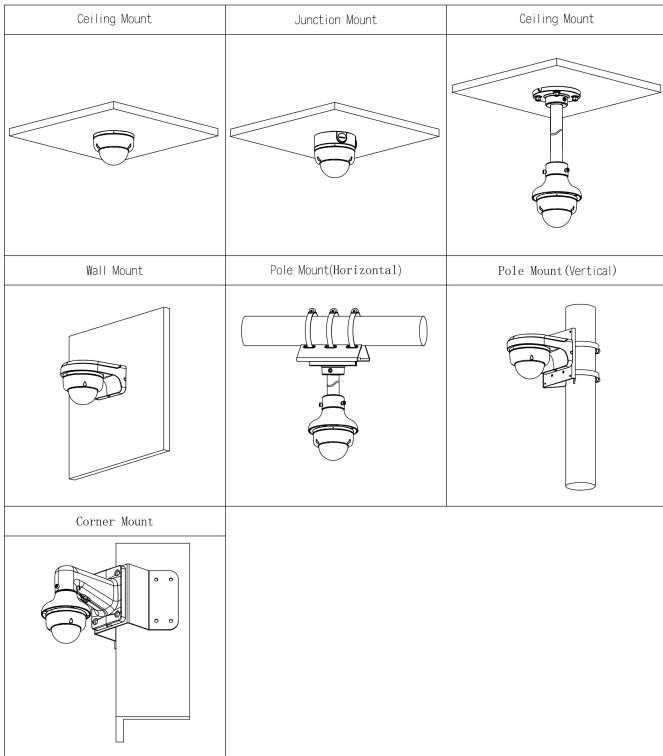
DH-PFM325D-1210EN
DC12V 1A Power Adapter



DH-PFM320D-EN
DC12V2A power adapter



PFM900-E
Integrated Mount Tester



Dimensions (mm[inch])

