dahua TECHNOLOGY

DH-IPC-HDW2239T-AS-LED-S2

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

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.

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.

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.

- 2-MP, 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 warm lights, max. illumination distance: 30 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.
- Intelligent detection: Intrusion, tripwire.
- Abnormality detection: Motion detection, video tampering, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, voltage detection.
- Supports max. 256 GB Micro SD card and built-in Mic.
- 12V DC/PoE power supply.
- IP67 protection.

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 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	128 MB
RAM	128 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Minimum Illumination	0.0017 lux@F1.0 (Color, 30 IRE) 0.0002 lux@F1.0 (B/W, 30 IRE) 0 lux (Illuminator on)
S/N Ratio	> 56 dB
Illumination Distance	30 m (98.4 ft)(Warm light)
Illuminator On/Off Control	Auto; Manual
Illuminator Number	2 (Warm light)
Pan/Tilt/Rotation Range	Pan: 0°–360° Tilt: 0°–78° Rotation: 0°–360°

Lens

Lens Type	Fixed-focal
Mount Type	M12
Focal Length	2.8 mm; 3.6 mm
Max. Aperture	F1.0
Field of View	2.8 mm: H: 107°; V: 55°; D: 127° 3.6 mm: H: 91°; V: 47°; D: 109°
Iris Type	Fixed
Close Focus Distance	2.8 mm: 0.9 m (3.0 ft) 3.6 mm: 1.3 m (4.3 ft)

	Lens	Detect	Observe	Recognize	Identify
DORI Distance	2.8 mm	46.5 m (152.26 ft)	18.6 m (61.02 ft)	9.3 m (30.51 ft)	4.6 m (15.09 ft)
	3.6 mm	53.7 m (176.18 ft)	21.5 m (70.54 ft)	10.7 m (35.10 ft)	5.4 m (17.72 ft)

Smart event

IVS	Tripwire; intrusion

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) *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	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° (Supports 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	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

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	IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP ; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; PPPoE; Bonjour
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone; Genetec
User/Host	20 (Total bandwidth: 72 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

Power

Power Supply	12V DC/PoE (802.3af)
Power Consumption	< 7.1 W

Environment

Operating Conditions	−40 °C to +60 °C (−40 °F to +140 °F)/less than ≤ 95% RH
Storage Temperature	−40 °C to +60 °C (−40 °F to +140 °F)
Protection Grade	IP67

Structure

Casing	IInner core: metal; cover: plastic (pedestal: plastic)
Dimensions	100.9 mm × Φ109.9 mm (4.0" × Φ4.3")
Net Weight	0.365 kg (0.8 lb)
Gross Weight	0.527 kg (1.2 lb)

Ordering Information

Type	Part Number	Description
2MP Camera	DH-IPC-HDW2239TP-AS-LED-S2	2MP Lite Full-color Fixed-focal Eyeball Network Camera,PAL
	DH-IPC-HDW2239TN-AS-LED-S2	2MP Lite Full-color Fixed-focal Eyeball Network Camera,NTSC
Accessories (Optional)	PFA130-E	Water-proof Junction Box
	PFB203W	Wall Mount Bracket
	PFA152-E	Pole Mount Bracket
	PFM321D	12V DC 1A Power Adapter
	LR1002-1ET/1EC	Single-port Long Reach Ethernet over Coax Extender
	PFM900-E	Integrated Mount Tester
	TF-P100	MicroSD Memory Card

Accessories

Optional:

PFA130-E
Water-proof
Junction Box

PFB203W
Wall Mount
Bracket

PFA152-E
Pole Mount
Bracket

PFM321D
12V DC 1A Power
Adapter

LR1002-1ET/1EC
Single-port Long
Reach Ethernet over
Coax Extender

PFM900-E
Integrated Mount
Tester

TF-P100
MicroSD Memory
Card

Junction Box	Junction Box	Pole Mount
PFA130-E	PFB203W	PFA152-E+PFB203W

Dimensions (mm[inch])

100.9 [3.97]

83.3 [3.28]

4-4.5 x 5.5

⌀84.0 [⌀3.31]

3-120°

⌀109.9 [⌀4.33]