DH-IPC-HDW1431T-ZS-S4

4MP Entry IR Vari-focal Eyeball Netwok Camera

- 4MP, 1/3” CMOS image sensor, low illuminance, high image definition
- Outputs 4MP (2560 × 1440) @25/30 fps, and supports max. 4MP (2688 × 1520) @20 fps
- H.265 codec, high compression rate, ultra-low bit rate
- Built-in IR LED, max. IR distance: 50 m
- ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments
- Image Rotation, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes
- 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 SD card
- 12V DC/PoE power supply
- IP67 protection

Series Overview

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.

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.

Motion Detection

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

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.

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.

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 comprising 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 works normal after soaking in 1 m deep water for 30 minutes.

Wide voltage: The camera allows ±30% input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

Technical Specification

Camera

Image Sensor	1/3 ”4Megapixel progressive CMOS
Max. Resolution	2688 (H) ×1520 (V)
ROM	128 MB
RAM	128 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100000 s
S/N Ratio	> 56 dB
Min. Illumination	0.03 Lux @ F1.7
Illumination Distance	50 m (164.0 ft)
Illuminator On/Off Control	Auto/Manual
Illuminator Number	2(IR LED)
Pan/Tilt/Rotation Range	Pan: 0°–355° Tilt: 0°–78° Rotation: 0°–360°

Lens

Lens Type	Motorized vari-focal
Mount Type	ϕ14
Focal Length	2.8 mm–12 mm
Max. Aperture	F1.7
Field of View	Horizontal: 98°–31° Vertical: 55°–18° Diagonal: 116°–36°
Iris Type	Fixed
Close Focus Distance	0.8 m (2.6 ft)

	Lens	Detect	Observe	Recognize	Identify
DORI Distance	W	66.0 m (183.7 ft)	26.4 m (73.5 ft)	13.2 m (36.7 ft)	6.6 m (18.4 ft)
	T	200.0 m (656.2 ft)	80.0 m (262.5 ft)	40.0m (131.2 ft)	20.0 m (65.6 ft)

Video

Video Compression	H.265; H.264; H.264B; MJPEG(only supported by sub stream)
Smart Codec	Smart H.265+/ Smart H.264+
Video Frame Rate	Main Stream: 2688 × 1520 (1 fps–20 fps) 2560 × 1440 (1 fps–25/30 fps) Sub Stream: 704 × 576 (1 fps–20/25 fps) 704 × 480 (1 fps–20/30 fps)
Stream Capability	2 streams
Resolution	2688 × 1520 (2688 × 1520); 2560 × 1440 (2560 × 1440); 2304 × 1296 (2304 × 1296); 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	120 dB
White Balance	Auto/natural/street lamp/outdoor/manual/regional custom
Gain Control	Manual/Auto
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 2688 × 1520 resolution and lower.)
Mirror	Yes
Privacy Masking	4 areas

Alarm

Alarm Event	Network disconnection; IP conflict; motion detection; video tampering; illegal access; voltage detection; security exception; defocus detection;

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; Milestone; Genetec; P2P
User/Host	20
Storage	FTP; SFTP; Micro SD card (support max. 256 GB); NAS
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

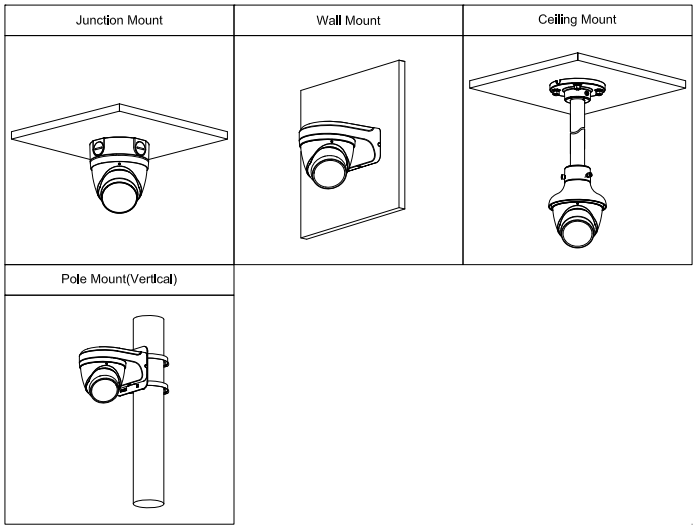
Power Supply	12V DC/POE (802.3af)

Power Consumption	< 6.9W
Environment	
Operating Conditions	-30°C to +60°C (-22°F to +140°F)/less than≤95%
Strorage Conditions	-40°C to +60°C (-40°F to +140°F)
Protection	IP67
Structure	
Casing	Inner core: metal; cover: metal
Dimensions	108.3 mm × Φ122 mm (4.3" × Φ4.8")
Net Weight	0.69 kg (1.5 lb)
Gross Weight	0.87 kg (1.9 lb)

LR1002-1ET/1EC
Single-port long reach ethernet over coax extender

PFM900-E
Integrated Mount tester

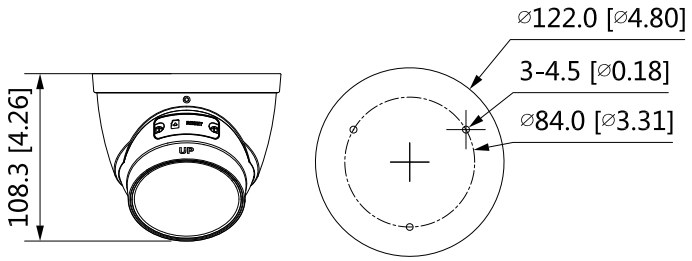
PFM114
TLC SD card



Ordering Information

Type	Part Number	Description
4MP Camera	DH-IPC-HDW1431TP-ZS-S4	4MP Entry IR vari-focal Eyeball Netwok Camera,PAL
	DH-IPC-HDW1431TN-ZS-S4	4MP Entry IR Vari-focal Eyeball Netwok Camera,NTSC
Accessories (optional)	PFA130-E	Junction Box
	PFB203W	Wall mount
	PFA106	Mount adapter
	PFB220C	Ceiling mount
	PFA152-E	Pole Mount
	PFM321D	12V DC 1A Power adapter
	LR1002-1ET/1EC	Single-port long reach ethernet Over coax extender
	PFM900-E	Integrated mount tester
	PFM114	TLC SD card

Dimensions (mm[inch])



Accessories

Optional:

PFA130-E
Junction Box

PFB203W
Wall Mount

PFA106
Mount Adapter

PFB220C
Celling Mount

PFA152-E
Pole Mount

PFM321D
12V DC 1A Power Adapter

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