DH-IPC-HDW3841T-ZAS

8MP IR Vari-focal Eyeball WizSense Network Camera

Launched by Dahua Technology, WizSense is a series of AI products and solutions that adopt independent AI chip and deep learning algorithm. It focuses on human and vehicle with high accuracy, enabling users to fast act on defined targets. Based on Dahua's advanced technologies, WizSense provides intelligent, simple and inclusive products and solutions.

Series Overview

With advanced deep learning algorithm, Dahua WizSense 3 Series network camera supports intelligent functions, such as perimeter protection and smart motion detection. With starlight technology, this series camera provides a better image effect in the condition of low illuminance.

Functions

SMD Plus

With intelligent algorithm, Dahua Smart Motion Detection technology can categorize the targets that trigger motion detection and filter the motion detection alarm triggered by non-concerned targets to realize effective and accurate alarm.
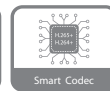
Smart H.265+ & Smart H.264+

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.

Perimeter Protection

With deep learning algorithm, Dahua Perimeter Protection technology can recognize human and vehicle accurately. In restricted area (such as pedestrian area and vehicle area), the false alarms of intelligent detection based on target type (such as tripwire, intrusion, fast moving, parking detection, loitering detection and gathering detection) are largely reduced.

- 8MP, 1/2.8" CMOS image sensor, low illuminance, high image definition
- Outputs max. 8MP (3840 × 2160) @20 fps (AI function enabled by default) and supports 8MP (3840 × 2160) @25/30 fps (when AI function disabled)
- H.265 codec, high compression rate, 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.
- Rotation mode, WDR, 3D DNR, HLC, BLC, digital watermarking, applicable to various monitoring scenes
- Intelligent detection: Intrusion, tripwire (support the classification and accurate detection of vehicle and human)
- Abnormality detection: Motion detection, video tampering, scene changing, audio detection , no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection
- Supports max. 256 G Micro SD card, built-in Mic
- 12V DC/PoE power supply
- IP67 protection
- SMD Plus

Starlight

Dahua Starlight technology mainly applies to the environment of low illumination, and it can provide clear colorful video. Even in the environment of min. illumination, the technology can guarantee the good image effect.

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.

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	1/2.8"8Megapixel progressive CMOS
Max. Resolution	3840 (H) × 2160 (V)
ROM	128 MB
RAM	512 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.007 Lux @F1.5
S/N Ratio	>56 dB
Illumination Distance	50 m (164 ft)
Illuminator On/Off Control	Auto/Manual
Illuminator Number	2 (IR LED)
Pan/Tilt/Rotation Range	Pan: 0°–360° Tilt: 0°–78° Rotation: 0°–360°

Lens

Lens Type	Motorized vari-focal
Mount Type	φ14
Focal Length	2.7 mm–13.5 mm
Max. Aperture	F1.5
Field of View	Horizontal: 113°–31° Vertical: 58°–17° Diagonal:138°–36°
Iris Type	Fixed
Close Focus Distance	0.8 m (2.6 ft)

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	W	85.3 m (279.9 ft)	34.1 m (111.9 ft)	17.0 m (55.8 ft)	8.5 m (27.9 ft)
	T	280.0 m (918.6 ft)	112.0 m (367.5 ft)	56.0 m (183.7 ft)	28.0 m (91.9 ft)

Professional, intelligent

Perimeter Protection	Tripwire; intrusion (support the classification and accurate detection of vehicle and human)
Intelligent 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: 3840 × 2160 @(1–20 fps by default) 3840 × 2160 @(1–25/30 fps when AI function disabled) sub stream: 704 × 576 @(1–25 fps)/704 × 480 @ (1–30 fps) third stream: 1920 × 1080 @(1–25/30 fps)

Stream Capability	3 streams
Resolution	8M (3840 × 2160); 6M (3072 × 2048); 5M (3072 × 1728/2592 × 1944); 4M (2688 × 1520); 3M (2048 × 1536/2304 × 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: 3 kbps–8192 kbps H.265: 3 kbps–8192 kbps
Day/Night	Auto (ICR)/Color/B/W
BLC	Yes
HLC	Yes
WDR	120 dB
Scene Self-adaptation	Yes
White Balance	Auto/natural/street lamp/outdoor/manual/regional custom
Gain Control	Auto/Manual
Noise Reduction	3D DNR
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; G726; AAC

Alarm

Alarm Event	No SD card; SD card full; SD card error; service life warning (only supported by Dahua card); network disconnection; IP conflict; illegal access; motion detection; video tampering; intrusion; tripwire; scene changing; audio detection; voltage detection; defocus detection; SMD; safety exception

Network

Network	RJ-45 (10/100 Base-T)
SDK and API	Yes
Protocol	IPv4; IPv6; HTTP; HTTPS; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; 802.1x; SNMP
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone; Genetec
User/Host	20 (Total bandwidth: 72 M)
Storage	Dahua Cloud (only supported by Dahua version); FTP; SFTP; Micro SD card (support max. 256 G); NAS

Browser	IE: IE8; IE9; IE11 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 UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07

Power

Power Supply	12V DC/PoE (802.3af)
Power Consumption	Basic power consumption: 2.6W (12V DC); 3.3W (PoE) Max. power consumption (WDR + H.265 + IR LED intensity): 6W (12V DC); 7.3W (PoE)

Environment

Operating Conditions	−30°C to +60°C (−22°F to +140°F)/Less than 95% RH
Storage Conditions	−40°C to +60°C (−40°F to +140°F)
Protection Grade	IP67

Structure

Casing	Metal
Dimensions	108.3 mm × Φ122 mm (4.3" × Φ4.8")
Net Weight	685g (1.5 lb)
Gross Weight	828 g (1.8 lb)

Ordering Information

Type	Model	Description
8MP Camera	DH-IPC-HDW3841TP-ZAS	8MP IR Vari-focal Eyeball WizSense Network Camera, PAL
	DH-IPC-HDW3841TN-ZAS	8MP IR Vari-focal Eyeball WizSense Network Camera, NTSC
	IPC-HDW3841TP-ZAS	8MP IR Vari-focal Eyeball WizSense Network Camera, PAL
	IPC-HDW3841TN-ZAS	8MP IR Vari-focal Eyeball WizSense Network Camera, NTSC
Accessories (optional)	PFA130-E	Junction Box
	PFB203W	Wall Mount
	PFA106	Mount Adapter
	PFB220C	Celling Mount
	PFA152-E	Pole Mount
	PFM321D	DC12V1A Power Adapter
	LR1002-1ET/1EC	Single-port Long Reach Ethernet over Coax Extender
	PFM900-E	Integrated Mount Tester
	PFM114	TLC SD Card

Accessories

Optional:

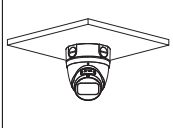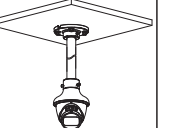PFA130-E Junction Box; PFB203W Wall Mount; PFA106 Mount Adapter; PFB220C Celling Mount; PFA152-E Pole Mount; PFM321D DC12V1A Power Ad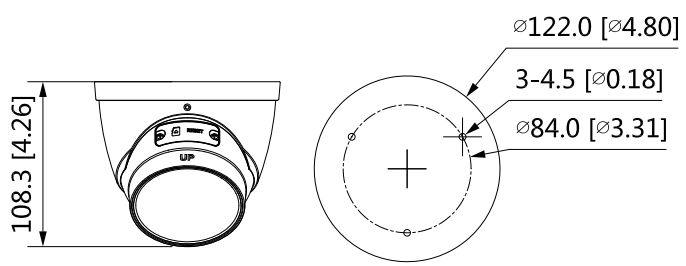apter; LR1002-1ET/1EC Single-port Long Reach Ethernet over Coax Extender; PFM900-E Integrated Mount Tester; PFM114 TLC SD Card

Junction Mount	Wall Mount	Ceiling Mount	Pole Mount
PFA130-E	PFB203W	PFA106+PFB220C	PFB203W+PFA152-E

Dimensions (mm[inch])

⌀122.0 [⌀4.80]; 3-4.5 [⌀0.18]; ⌀84.0 [⌀3.31]; 108.3 [4.26]