DH-IPC-HDBW3849R1-ZAS-PV

8MP Smart Dual Illumination Active Deterrence Vari-focal Dome 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

Siren And Light Active Deterrence

Dahua siren and light active deterrence network camera supports the light alarm and voice alarm when perimeter event occurs, to realize the deterrence and effective intervention. The camera is built in multiple voices for selection, and supports customized voice importing.

Smart Dual Illuminators

Dahua Smart Dual Illuminators technology adopts smart algorithm to detect targets. Usually, the IR illuminator is on at night; when the target appears in the monitoring area, the warm 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 warm light is off and the IR illuminator is on, which reduces light pollution efficiently.

SMD

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.

One-tap Disarming

Dahua One-tap Disarming function, which is convenient and easy for operation, is the switch for event linkage. Customers can close and recover event linkage through mobile App, which meets multi-scenarios needs.

- 8-MP 1/2.8" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 8 MP (3840 × 2160)@25/30 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in warm light and IR LED; the max. IR illumination distance is 50 m and warm light distance is 40 m.
- ROI, SMART H.264+/H.265+, AI 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 monitoring: Intrusion, tripwire (the two function support the classification and accurate detection of vehicle and human).
- Abnormality detection: Motion detection, privacy masking, scene changing, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection.
- Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card; buit-in dual MICs; 1-ch speaker; support two-way talk.
- 12 VDC/PoE power supply.
- IP67, IK10 protection.
- Sound and light alarm (red and blue lights).
- SMD 3.0.
- One-click arming/disarming through alarm input.

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.

Protection (IP67, IK10, 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.
IK10: The enclosure can stand the punch more than 5 times from a 5 kg hammer falling from a height of 40 cm (Impact energy is 20J).
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	3840 (H) × 2160 (V)
ROM	128 MB
RAM	1 GB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.004 lux@F1.0 (Color, 30 IRE) 0.0004 lux@F1.0 (B/W, 30 IRE) 0 lux (illuminator on)
S/N Ratio	>56 dB
Illumination Distance	50 m (164.04 ft) (IR) 40 m (131.23 ft) (warm light)
Illuminator On/Off Control	Auto/Manual
Illuminator Number	2 (IR LED) 2 (warm light)
Pan/Tilt/Rotation Range	Pan: 0°–360° Tilt: 0°–90° Rotation: 0°–360°

Lens

Lens Type	Motorized vari-focal
Mount Type	ϕ16
Focal Length	2.7 mm–13.5 mm
Max. Aperture	F1.0
Field of View	Horizontal: 108°–34° Vertical: 56°–19° Diagonal: 130°–39°
Iris Type	Fixed
Close Focus Distance	1.5 m (4.92 ft)

	Lens	Detect	Observe	Recognize	Identify
DORI Distance	W	89.9 m (294.95 ft)	36.0 m (118.11 ft)	18.0 m (59.06 ft)	19.0 m (62.34 ft)
	T	257.4 m (844.49 ft)	103.0 m (337.93 ft)	51.5 m (168.96 ft)	25.7 m (84.32 ft)

Professional, intelligent

IVS (Perimeter Protection)	Tripwire; intrusion (support the classification and accurate detection of vehicle and human)
SMD 3.0	Less false alarm, longer detection distance
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+
AI Coding	AI H.265; AI H.264
Video Frame Rate	Main stream: 3840 × 2160@(1 fps–30 fps) Sub stream: 704 × 576@(1 fps–25 fps)/704 × 480@(1 fps–30 fps) Third stream:1920 × 1080@(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	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 NR
Motion Detection	OFF/ON (4 areas)
Region of Interest (RoI)	Yes (4 areas)
Image Stabilization	Electronic Image Stabilization (EIS)
Smart Illumination	Yes
Defog	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	No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; scene changing; audio detection; voltage detection; defocus detection; external alarm; SMD; security 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; SAMBA; PPPoE; SNMP

Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone
User/Host	20 (Total bandwidth: 72 M)
Storage	FTP; SFTP; Micro SD card (support max. 256 G); NAS
Browser	IE: IE8/9/11 Chrome Firefox
Management Software	Smart PSS; DSS; DMSS
Mobile Phone	iOS; Android

Certification

Certification	CE-LVD: EN 62368-1; CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU; FCC: 47 CFR FCC Part 15, Subpart B; UL/CUL: UL62368-1 & CAN/CSA C22.2 No. 62368-1-14

Port

Audio Input	1 channel (RCA port)
Audio Output	1 channel (RCA port)
Alarm Input	1 channel in: 5 mA 3V–5 VDC
Alarm Output	1 channel out: 300 mA 12 VDC

Power

Power Supply	12V DC/PoE (802.3af)
Power Consumption	Basic: 4.4 W (12 VDC); 5.8 W (PoE) Max. (H.265+main stream/IR intensity+warm light on): 7.9 W (12 VDC); 10.1 W (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, IK10

Structure

Casing	Metal
Dimensions	105 mm × Φ126.0 mm (4.13" × Φ4.96")
Net Weight	0.73 kg (1.61 lb)
Gross Weight	0.9 kg (1.98 lb)

Ordering Information

Type	Model	Description
8MP Camera	DH-IPC-HDBW3849R1-ZAS-PV	8MP Smart Dual Illumination Active Deterrence Vari-focal Dome WizSense Network Camera
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Accessories (Optional)	PFA197R	Junction Box
	PFB206W	Wall Mount
	PFA156	Pole Mount
	PFA109	Ceiling Mount Bracket
	PFB220C	Ceiling Mount Bracket
	PFM321D	12 VDC 1A Power Adapter
	PFM900-E	Integrated Mount Tester
	TF-P100	TLC SD Card

Accessories

Optional:

PFA197R
Junction Box

PFB206W
Wall Mount

PFA156
Pole Mount

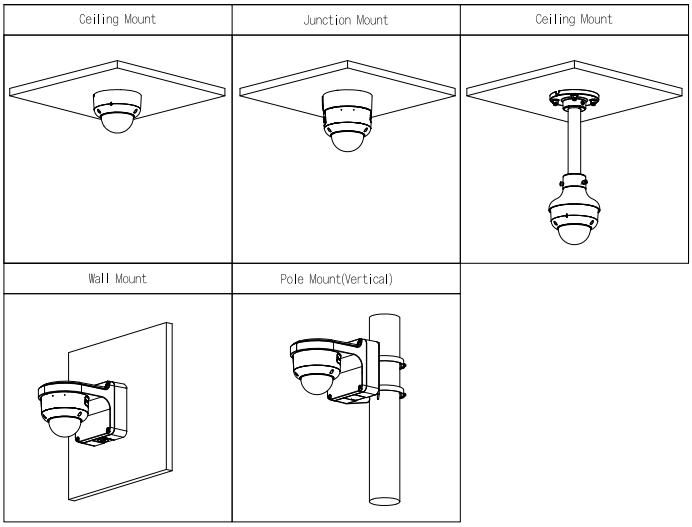
PFA109
Ceiling Mount Bracket

PFB220C
Ceiling Mount Bracket

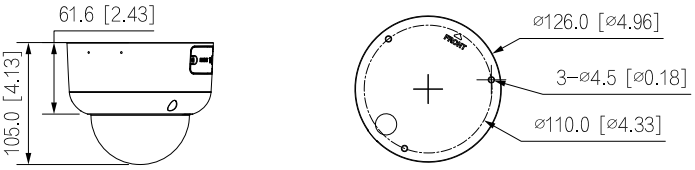
PFM321D
12 VDC 1A Power Adapter

PFM900-E
Integrated Mount Tester

TF-P100
TLC SD Card



Dimensions (mm[inch])



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