

IPC-PDW3849-A180-AS-PV

2x4MP TiOC Duo Splicing Fixed-focal Eyeball WizSense Network Camera



TiOC 

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

Dahua WizSense 3 Series Network Camera greatly saves on bandwidth and storage space through its AI Coding technology. Driven by its advanced deep learning algorithms, the camera supports intelligent functions such as perimeter protection, smart motion detection (SMD), Quick Pick, making it easy and convenient to use. Starlight technology and its large aperture lens also allow the camera to produce clear, vivid images even in poor lighting conditions.

Functions

SMD 4.0

Dahua Smart Motion Detection technology works with intelligent algorithms to classify targets that trigger motion detection alarms. It filters out objects that are not targets, such as small and large animals, to avoid triggering false alarms. With an AI NVR, Quick Pick technology becomes available, allowing you to easily search for and pick out human and vehicle targets from SMD event videos, prioritizing the highest matches.

EPTZ

With advanced target detection and tracking algorithms, Dahua EPTZ technology can simultaneously zoom in and track multiple humans and vehicles that trigger alarms. It provides rich details and a panoramic view at the same time.

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.

- Outputs 180° wide angle splicing image.
- Outputs max. 8 MP (4096 × 1860)@20 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in IR LED and warm light, the max. IR illumination distance is 25 m and warm light distance is 20 m.
- ROI, SMART H.264 +/H.265+, AI H.264/H.265, flexible coding, applicable to various bandwidth and storage environments.
- WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes.
- Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card; built in dual Mic; built in speaker, support two-way talk.
- 12 VDC/PoE power supply, easy for installation.
- IP67 protection.
- Sound and light alarm (red and blue lights)
- EPTZ: Enlarge and track the targets of intelligent alarms.
- SMD 4.0.



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 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.

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.

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 $\pm 30\%$ (for some power supplies) input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

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.

Technical Specification					
Camera					
Image Sensor		Dual 1/2.7" CMOS			
Max. Resolution		4096 (H) × 1860 (V)			
ROM		128 MB			
RAM		1 GB			
Scanning System		Progressive			
Electronic Shutter Speed		Auto/Manual 1/3 s–1/100,000 s			
Min. Illumination		0.005 lux@F1.4 (Color, 30 IRE) 0.0005 lux@F1.4 (B/W, 30 IRE) 0 lux (Illuminator on)			
S/N Ratio		>56 dB			
Illumination Distance		Up to 25 m (82.02 ft) (IR LED) Up to 20 m (65.62 ft) (Warm light)			
Illuminator On/Off Control		Auto; Manual			
Illuminator Number		2 (IR LED); 2 (Warm light)			
Angle Adjustment		Pan: 0°–360° Tilt: 0°–77° Rotation: 0°–360°			
Lens					
Lens Type		Fixed-focal			
Lens Mount		M12			
Focal Length		2.8 mm			
Field of View		Horizontal: 180°; Vertical: 86°			
Max. Aperture		F1.4			
Iris Control		Fixed			
Close Focus Distance		0.8 m (2.62 ft)			
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	50.6 m (166.01 ft)	20.2 m (66.27 ft)	10.1 m (33.14 ft)	5.1 m (16.73 ft)
Intelligence					
IVS (Perimeter Protection)		Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human)			
SMD		SMD 4.0			
Quick Pick		With AI NVR, quickly pick up the human/vehicle targets that users are interested in from SMD events.			
Smart Search		Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos.			
EPTZ		Enlarge and track the targets of intelligent alarms			
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: 4096 × 1860@(1–20 fps) Sub stream: 1200 × 530@(1–20 fps) Third stream: 1920 × 860@(1–20 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	4096 × 1860; 3632 × 1632; 3040 × 1368; 1200 × 530; 1920 × 860; 960 × 432
	Bit Rate Control	CBR/VBR
	Video Bit Rate	H.264: 6 kbps –16384 kbps H.265: 6 kbps –16384 kbps
	Day/Night	Auto(ICR)/Color/B/W
	BLC	Yes
	HLC	Yes
	WDR	120 dB
	Scene Self-adaptation (SSA)	Yes
White Balance	Auto; natural; street lamp; outdoor; manual; regional custom	
Gain Control	Auto	
Noise Reduction	3D NR	
Motion Detection	OFF/ON (4 areas, rectangular)	
Region of Interest (Rol)	Yes (4 areas)	
Privacy Masking	4 areas	
Defog	Yes	
Audio		
Built-in MIC	Yes, built-in dual Mic	
Built-in speaker	Yes, built-in speaker	
Audio Compression	G.711a; G.711Mu; PCM; G.726; G.723	
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 chaging; audio detection; voltage detection; external alarm; SMD; security exception	
Network		
Network Port	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	
Network 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; P2P	
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI	
User/Host	20 (Total bandwidth: 64 M)	
Storage	FTP; SFTP; Micro SD card (support max. 256 GB); NAS	

Browser	IE: IE 8 and later Chrome Firefox
Management Software	Smart PSS Lite; DSS; DMSS
Mobile Client	iOS; Android

Certification

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

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

Power

Power Supply	12 VDC (±30%); PoE (802.3af)
Power Consumption	Basic: 3.95 W (12 VDC); 4.95 W (PoE) Max. (H.265+WDR+ warm light+siren and light active deterrence + intelligence on): 8.7 W (12 VDC); 10.85 W (PoE)

Environment

Operating Temperature	–40 °C to +60 °C (–40 °F to +140 °F)
Operating Humidity	≤95%
Storage Temperature	–40 °C to +60 °C (–40 °F to +140 °F)
Protection	IP67

Structure

Casing	Metal
Product Dimensions	Φ122 mm × 135.2 mm (Φ4.80" × 5.32")
Net Weight	990 g (2.18 lb)
Gross Weight	1150 g (2.54 lb)

Ordering Information

Type	Model	Description
8MP Camera	DH-IPC-PDW3849-A180-AS-PV	2x4MP TiOC Duo Splicing Fixed-focal Eyeball WizSense Network Camera
	IPC-PDW3849-A180-AS-PV	2x4MP TiOC Duo Splicing Fixed-focal Eyeball WizSense Network Camera
Accessories (Optional)	PFA137	Junction Box
	PFB205W-E	Wall Mount Bracket
	PFB220C	Ceiling Mount Bracket
	PFA109	Mount Adapter
	PFA152-E	Pole Mount Bracket
	PFM900-E	Integrated Mount Tester
	TF-P100	MicroSD Memory Card
	PFM321D	12 VDC 1A Power Adapter

Accessories

Optional:



PFA137
Junction Box



PFB205W-E
Wall Mount Bracket



PFB220C
Ceiling Mount Bracket



PFA109
Mount Adapter



PFA152-E
Pole Mount Bracket



PFM900-E
Integrated
Mount Tester



TF-P100
MicroSD
Memory Card



PFM321D
12V DC 1A
Power Adapter