

CDTS-MNS08HG1-AI-PV

8MP Smart Dual Illumination Active Deterrence Fixed-focal Eyeball WizSense Network Camera



Launched by CDTS 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

CDTS 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), Acupick, and AI SSA (AI Scene Self-adaptation), 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

Siren and Light Active Deterrence

CDTS 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.

SMD 4.0

CDTS 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.

Smart Dual Light

CDTS 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 white 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

** The parameters and datasheets below can only be applied to 3849-PV-S5 series.*

- 8-MP 1/2.7" CMOS image sensor, low luminance, and high definition image.

- Outputs max. 8 MP (3840 × 2160)@25/30 fps.

target is out of the monitoring area, the white light is off and the IR illuminator is on, which reduces light pollution efficiently.

One-tap Disarming

CDTS 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.

- H.265 codec, high compression rate, ultra-low bit rate. • Built-in warm light and IR LED; the max. IR illumination distance is 30 m and warm light distance is 30 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; built-in dual Mic; 1-ch speaker; support two-way talk.
- 12 VDC/PoE power supply.
- IP67 protection.
- Sound and light alarm (red and blue lights).
- SMD 4.0.
- Supports AI SSA and one-tap arming and disarming.
- SMD area can be set in warm light areas that support triggering alarms.



Cyber Security

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

Technical Specification
Lens
Camera

Image Sensor	1/2.7" CMOS				
Max. Resolution	3840 (H) × 2160 (V)				
ROM	256 MB				
RAM	2 G				
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	Up to 30 m (98.43 ft) (IR) Up to 30 m (98.43 ft) (Warm light)				
Illuminator On/Off	Auto/Manual				
IVS (Perimeter Protection)	Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human)				
SMD	SMD 4.0				
AcuPick	Uses deep learning algorithms and works with back-end devices to accurately match targets, such as people and motor vehicles, and search through live and recorded videos to quickly locate targets.				
AI SSA	Adopt deep learning algorithms to adjust the parameters of the image to suit the conditions.				
Max. Aperture	F1.0				
Field of View	2.8 mm: H: 106°; V: 55°; D: 125° 3.6 mm: H: 85°; V: 45°; D: 102°				
Iris Control	Fixed				
Close Focus Distance	2.8 mm: 1.5 m (4.92 ft) 3.6 mm: 2.2 m (7.22 ft)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	66.0 m (216.54 ft)	26.4 m (86.61 ft)	13.2 m (43.31 ft)	6.6 m (21.65 ft)
	3.6 mm	78.0 m (255.91 ft)	22.2 m (102.36 ft)	15.6 m (51.18 ft)	7.8 m (25.59 ft)
*DORI (Detect, Observe, Recognize, Identify) is a standard system (EN-62676-4) for defining the ability of a person viewing the video to distinguish persons or objects within a covered area. The numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and commissioning manual/project design tool.					

Intelligence
Smart 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 (Compression rate ≥25%) AI H.264 (Compression rate ≥25%)
Video Frame Rate	Main stream: 3840 × 2160 @(1 fps–25/30 fps) Sub stream: 704 × 576@(1–25 fps)/704 × 480@(1–30 fps) Third stream: 1920 × 1080@(1–25/30 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 × 1520/2560 × 1440); 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/ABR
Video Bit Rate	H.264: 3 kbps–16384 kbps; H.265: 3 kbps–16384 kbps
Day/Night	Auto(ICR)/Color/B/W
Built-in MIC	Yes
Built-in Speaker	Yes
Audio Compression (SSA)	PCM; G.711a; G.711Mu; G.726; G.723 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 (RoI)	Yes (4 areas)
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
LDC	Yes

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; intensity change; voltage detection; external alarm; SMD; security exception
Network Port	RJ-45 (10/100 Base-T)
SDK and API	Yes
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; 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 9/11 Chrome Firefox
Management Software	Smart PSS Lite; DSS; DMSS
Mobile Client	iOS;Android
Cyber Security	Video encrypton;Firmware encrypton;Configuraton encrypton;Digest;WSSE;Account lockout;Security logs;IP/ MAC filtering;Generaton and importng of X.509 ce rtfcaton;syslog;HTTPS;802.1x;Trusted boot;Trusted executon;Trusted upgrade

Audio

Ordering Information		
Type	Model	Description
8MP Camera	DH-IPC-HDW3849H-AS-PV	8MP Smart Dual Light Active Deterrence Fixed-focal Eyeball WizSense Network Camera
Accessories (Optional)	PFA137	Junction Box
	PFB205W-E	Wall Mount Bracket
	PFA109	Mount Adapter
	PFB220C	Ceiling Mount Bracket
	PFA152-E	Pole Mount Bracket
	PFM321D	12 VDC 1A Power Adapter
	PFM900-E	Integrated Mount Teste
	TF-P100	MicroSD Memory Card


Network
Accessories

Optional:

Certification

Certifications	CE-LVD: EN 62368-1; CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU
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 PFA137
Junction Box

 PFB205W-E
Wall Mount Bracket

 PFA109
Mount Adapter

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

Port


PFB220C

Ceiling Mount Bracket



PFA152-E

Pole Mount Bracket



PFM321D

12 VDC 1A Power Adapter

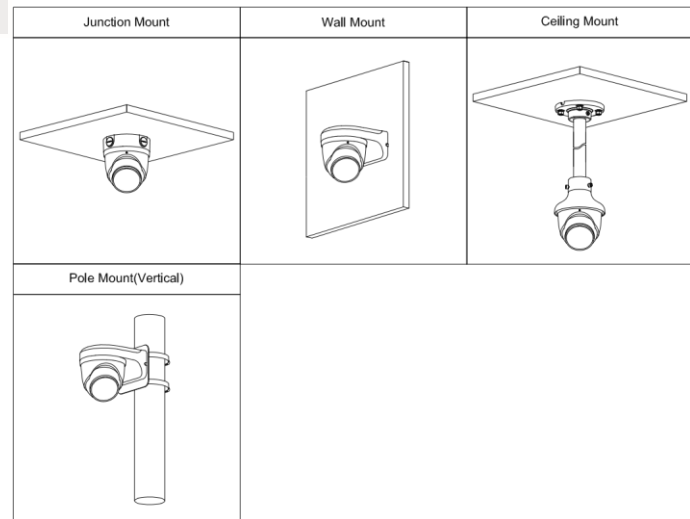
Power Supply	12 VDC; PoE
Power Consumption	Basic: 4.5 W (12 VDC); 5.8 W (PoE) Max. (H.265+WDR+ warm light+siren and light active deterrence + intelligence on): 8.6 W (12 VDC); 10.1 W (PoE)

Power


PFM900-E



TF-P100


 Integrated
Mount Tester

 Integrated
Mount Tester

Environment

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

Structure

Casing Material	Metal
Product Dimensions	Φ122.0 mm × 110.9 mm (4.80" × Φ4.37")
Net Weight	0.75 kg (1.65 lb)
Gross Weight	0.92 kg (2.03 lb)

Dimensions (mm[inch])

