DH-IPC-PTS2249B-E2-S-PV-PRO

2+2 MP WizColor Active Deterrance Dual-lens Fixed-focal Pan & Tilt 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 2 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

WizColor Technology

Dahua WizColor Technology seamlessly combines with the powerful AI-ISP, large pixel size sensor and large aperture in cameras. This unique integration enables cameras to effortlessly capture high-quality images with vibrant colors during nighttime scenarios, ensuring fine details are preserved and minimizing motion blur. Unlike traditional self-illuminating cameras, Dahua WizColor Technology maximizes the utilization of weak light sources, such as moonlight and city lights reflected in the sky, delivering captivating full-color images of the entire scene. It also ensures that monitoring distances are not compromised at night due to limited illumination ranges, facilitating full-color image capture even over long distances.

AI-ISP

With AI ISP technology, the camera is able to easily adapt to scenes, producing high quality images that reveal the fine details of targets.

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.

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.

- 2-MP 1/2.9" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 2 MP (1920 × 1080)@25/30 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in warm light, and the max. illumination distance is 30 m.
- ROI, SMART 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 functions support the classification and accurate detection of vehicle and human)
- Abnormality detection: Motion detection, video tampering, 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; built-in speaker; supports two-way talk.
- 12 VDC/PoE power supply, easy for installation.
- IP66 protection.
- Sound and light alarm.
- SMD Plus.
- One-tap arming/disarming.



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. the device.

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.

Protection (Wide Voltage)

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	Channel 1 (PT Lens): 1/2.9" CMOS Channel 2 (Fixed Lens): 1/2.9" CMOS
Max. Resolution	Channel 1 (PT Lens): 1920 (H) × 1080 (V) Channel 2 (Fixed Lens): 1920 (H) × 1080 (V)
ROM	128 MB
RAM	256 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.0006 lux@F1.0
S/N Ratio	>56 dB
Illumination Distance	Up to 30 m (98.43 ft) (Warm light)
Illuminator On/Off Control	Auto; Manual
Illuminator Number	4 (Warm light)

Lens

Lens Type	Channel 1 (PT Lens): Fixed-focal Channel 2 (Fixed Lens): Fixed-focal
Lens Mount	M12
Focal Length	Channel 1 (PT Lens): 3.6 mm Channel 2 (Fixed Lens): 3.6 mm
Max. Aperture	Channel 1 (PT Lens): F1.0 Channel 2 (Fixed Lens): F1.0
Field of View	Channel 1 (PT Lens): H: 81°; V: 44°; D: 95° Channel 2 (Fixed Lens): H: 81°; V: 44°; D: 95°
Iris Control	Fixed
Close Focus Distance	Channel 1 (PT Lens): 1.7 m (5.58 ft) Channel 2 (Fixed Lens): 1.7 m (5.58 ft)

	Lens	Detect	Observe	Recognize	Identify
DORI Distance	Channel 1 (PT Lens)	55.7 m (182.74 ft)	22.3 m (73.16 ft)	11.1 m (36.42 ft)	5.6 m (18.37 ft)
	Channel 2 (Fixed Lens)	55.7 m (182.74 ft)	22.3 m (73.16 ft)	11.1 m (36.42 ft)	5.6 m (18.37 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

IVS (Perimeter Protection)	Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human)
SMD	SMD Plus
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 sub stream)
Smart Codec	Smart H.265+; Smart H.264+
Video Frame Rate	Channel 1 (PT Lens): Main stream: 1920 × 1080@(1–25/30 fps) sub stream: 704 × 576@(1–25 fps)/704 × 480@(1–30 fps) Channel 2 (Fixed Lens): Main stream: 1920 × 1080@(1–25/30 fps) sub stream: 704 × 576@(1–25 fps)/704 × 480@(1–30 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.
Streaming Capability	2 streams
Resolution	Channel 1 (PT Lens): 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240) Channel 2 (Fixed Lens): 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	VBR; CBR
Video Bit Rate	H.264: 32 kbps–4096 kbps; H.265: 12 kbps–4096 kbps
Day/Night	Color/B/W
BLC	Yes
HLC	Yes
WDR	120 dB
White Balance	Auto; natural; street lamp; outdoor; manual; regional custom
Gain Control	Auto/Manual
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 1080p resolution and lower)
Mirror	Yes
Privacy Masking	4 areas
LDC	Yes

Audio

Built-in MIC	Yes, built-in Mic
Built-in Speaker	Yes, built-in speaker
Audio Compression	G.711a; G.711Mu; PCM; G.726

Alarm

Alarm Event	No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; audio detection; voltage detection; SMD; security exception

Network

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; P2P; Bonjour; Auto Registration
Security	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; Session security; Security warning
Interoperability	ONVIF (Profile S & Profile G & Profile T); CGI
User/Host	20 (Total bandwidth: 48 M)
Storage	FTP; SFTP; Micro SD card (support max. 256 GB); NAS
Browser	IE; Chrome; Firefox
Management Software	Smart PSS Lite; DSS; DMSS
Mobile Client	Android;iOS

Function

Light Warning	Warm light warning Flash/Solid on duration: 5 s–30 s Flash frequency: high, medium, low
Sound Warning	Offers 3 sound alarms and supports importing custom sound alarms. Sound: 0–100. Play times can be set from 1 to 10.

PTZ

Pan/Tilt Range	Channel 1 (PT Lens): Pan: 0° to 350°; Tilt: 0° to 90°; Channel 2 (Fixed Lens): Pan: 0° to 326°; Tilt: –10° to 15°
Manual Control Speed	Pan: 0.1°/s–55.4°/s; Tilt: 0.1°/s–29.3°/s
Preset	300
Preset Speed	Pan: 55.4°/s; Tilt: 29.3°/s
Tour	8 (up to 32 presets per tour)
Power-off Memory	Yes
Idle Motion	Tour;Preset

Certification

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

Power

Power Supply	12 VDC (±30%); PoE (802.3af)
Power Consumption	Basic: 2.3 W (12 VDC); 3.1 W (PoE); Max.: 9.2 W (12 VDC); 10.5 W (PoE) (intelligence on + WDR + illuminator on + PT rotation + speaker on)

Environment

Operating Temperature	–40 °C to +50 °C (–40 °F to +122 °F)
Operating Humidity	≤95% (RH), non-condensing
Storage Temperature	–40 °C to +50 °C (–40 °F to +122 °F)
Storage Humidity	≤95% (RH), non-condensing

Protection	IP66

Structure

Casing Material	Plastic
Product Dimensions	110.1 mm × 159.4 mm × 210 mm (4.33" × 6.28" × 8.27") (L × W × H)
Net Weight	0.62 kg (1.37 lb)
Gross Weight	0.87 kg (1.92 lb)

Ordering Information

Type	Model	Description
IP CAMERA	DH-IPC-PTS2249B-E2-S-PV-PRO	2+2MP WizColor Active Deterrance Dual-lens Fixed-focal Pan & Tilt WizSense Network Camera
Accessories (Optional)	DH-PFM321-EN	DC12V1A Power Adapter
	DH-PFM321D-EN	DC12V1A Power Adapter
	DH-PFM320D-EN	DC12V1A Power Adapter
	PFM900-E	Integrated Mount Tester
	DHI-TF-P100/256GB	MicroSD Card

Accessories

Optional:



DH-PFM320D-EN
DC12V2A Power Adapter



DH-PFM321-EN
DC12V1A Power Adapter



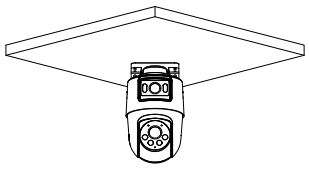
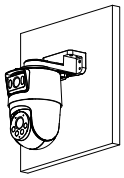
DH-PFM321D-EN
DC12V 1A Power Adapter



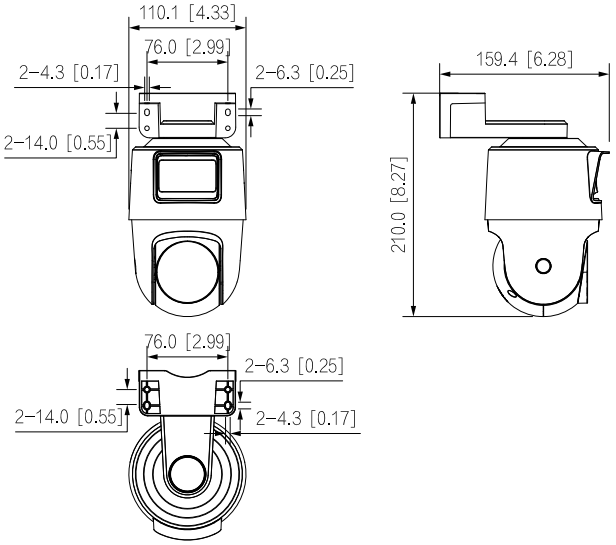
PFM900-E
Integrated Mount Tester



DHI-TF-P100/256GB
MicroSD

Ceiling Mount	Wall Mount
	

Dimensions (mm[inch])



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