

DH-SD4A425DB-HNY

4MP 25x Starlight IR WizSense Network PTZ Camera



Wiz Sense

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.

System Overview

With its powerful optical zoom, and accurate pan and tilt capabilities, the PTZ camera provides an all-in-one solution for long distance video surveillance of outdoor scenes. Together with infrared illumination and Starlight Technology, the camera is a great solution for dark, low light conditions. The series combines a day and night mechanical IR cut filter to produce high quality images in variable lighting conditions during the day.

Functions

Starlight Technology

With advanced image processing technology and optical technology, Dahua Starlight technology can provide clear colorful video in the environment of low illuminance. It widely applies to various environments of low illuminance.

Wide Dynamic Range

The camera produces vivid images, even in high-contrast lighting conditions, by using industry-leading wide dynamic range (WDR) technology. For scenes that quickly alternate between bright and low lighting, WDR adjusts to fully capture both the bright and dark areas of a scene, producing superior quality videos.

Perimeter Protection

Automatically filters out false alarms caused by animals, rustling leaves, bright lights, and more, and uses secondary recognition during target detection to improve alarm accuracy.

- 1/2.8" 4Megapixel STARVIS™ CMOS.
- 25x optical zoom.
- Starlight technology.
- Max. 25/30fps@4MP.
- IR distance up to 100 m.
- Auto-tracking 1.0.
- Perimeter protection.
- Face detection.
- SMD 3.0.
- IP66.



Auto-tracking 1.0

This feature controls the pan/tilt/zoom actions of the camera to automatically track an object in motion and to keep it in the scene. The tracking action can be triggered manually or automatically by defined rules. Once a rule is triggered, the camera can zoom in and track the defined target automatically.

PFA Technology

PFA technology has introduced new methods of judgment that ensure the accuracy and predictability of the direction of subject distance adjustment. The result is a set of advanced focusing algorithms that ensure image clarity when zooming and that shorten focus time. This makes the camera highly advanced in its functions, substantially improving the quality of your experience.

SMD

Empowered by deep-learning algorithms, Dahua SMD filters out motion detection alarms triggered by targets that are not a concern. It quickly recognizes humans and vehicles, triggering alarms when an intrusion occurs.

Environment (-40 °C to +65 °C, IP66)

Developed to operate in extreme conditions, the camera can function in temperatures ranging from -40 °C to +65 °C (-40 °F to +149 °F) at 95% humidity. It was subjected to rigorous dust and water immersion tests, gaining its IP66 Ingress Protection certification, making it suitable for demanding outdoor applications.

Technical Specification					PTZ Protocol	DH-SD		
Camera					Intelligence			
Image Sensor					IVS (Perimeter Protection)	Tripwire; intrusion; crossing fence detection; loitering detection; abandoned/missing object; fast moving; parking detection; people gathering; vehicle/human alarm classification; linkage tracking		
Pixel					Face Detection	Supports face detection, face track box, capturing pictures, face enhancement; Supports face cutout: Face, one-inch photo. Capturing strategies include real-time capturing and quality first		
Max. Resolution					Auto Tracking	Human and vehicle tracking based on Auto Tracking 1.0 technology		
ROM					SMD	SMD 3.0		
RAM					Auto Patrol	It triggers the IVS rule when a target is detected and makes the camera link with the PTZ to rotate to the position of the target and patrol based on its presets		
Electronic Shutter Speed					Video			
Scanning System					Video Compression	H.264H; H.264B; Smart H.265+; H.264; H.265; MJPEG(Sub Stream); Smart H.264+		
Min. Illumination					Streaming Capability	3 streams		
Illumination Distance					Resolution	4M (2560 × 1440); 3M (2304 × 1296); 1080P (1920 × 1080); 1.3M (1280 × 960); 720P (1280 × 720); D1 (704 × 576); VGA (640 × 480); CIF(352 × 288)		
Illuminator On/Off Control					Video Frame Rate	Main stream: 4M/3M/1080p/1.3M/720p @ (1~25/30 fps) Sub stream 1: D1/VGA/CIF @ (1~25/30 fps) Sub stream 2: 720p/CIF @ (1~25/30 fps)		
Illuminator Number					Bit Rate Control	CBR/VBR		
Lens					Video Bit Rate	H.264: 96Kbps - 14848Kbps H.265: 38Kbps - 8960Kbps		
Focal Length					Day/Night	Auto (ICR)/Color/B/W		
Max. Aperture					BLC	Yes		
Field of View					WDR	120 dB		
Optical Zoom					HLC	Yes		
Focus Control					White Balance	Auto; indoor; outdoor; ATW; manual; sodium lamp; natural light; street lamp		
Close Focus Distance					Gain Control	Auto; manual		
Iris Control					Noise Reduction	2D NR; 3D NR		
DORI Distance					Motion Detection	Yes		
Detect	Observe	Recognize	Identify	Region of Interest (RoI)	Yes			
DORI Distance	2500 m (8202.10 ft)	987.5 m (3239.83 ft)	500 m (1640.42 ft)	250 m (820.21 ft)	Image Stabilization	Electronic (EIS)		
*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.	Defog		Privacy Masking		Digital Zoom	16×		
PTZ	Image Rotation		Up to 24 areas can be set, with up to 8 areas in the same view		Image Rotation	180°		
Pan/Tilt Range	Pan: 0° to 360° endless Tilt: -5° to +90°, auto flip 180°				Privacy Masking	Up to 24 areas can be set, with up to 8 areas in the same view		
Manual Control Speed	Pan: 0.1°/s~240°/s Tilt: 0.1°/s~160°/s				S/N Ratio	≥ 55 dB		
Preset Speed	Pan: 240°/s; Tilt: 160°/s				Audio			
Preset	300				Audio Compression	G.711a; G.711Mu; G.726; MPEG2-Layer2; G722.1; PCM		
Tour	8 (up to 32 presets per tour)							
Pattern	5							
Scan	5							
Power-off Memory	Yes							
Idle Motion	Pattern; Preset; Scan; Tour							

Network

Network Port	RJ-45 (10/100 Base-T)
Network Protocol	FTP; RTMP; IPv6; Bonjour; IPv4; DNS; RTCP; PPPoE; NTP; RTP; 802.1x; HTTPS; SNMP; TCP/IP; DDNS; UPnP; NFS; ICMP; UDP; IGMP; HTTP; SSL; DHCP; SMTP; QoS; RTSP; ARP; SAMBA
Interoperability	CGI; SDK; ONVIF (Profile S&G&T); P2P
Streaming Method	Unicast/Multicast
User/Host	20 (total bandwidth: 64 M)
Storage	Micro SD card (512 GB); FTP/SFTP; NAS
Browser	IE 9 and later versions Chrome 41 and later versions Firefox 50 and later versions iOS 10 and later versions
Management Software	DMSS; DSS PRO
Mobile Client	iOS; Android

Certification

Certifications	CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4-2014 UL: UL62368-1
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Port

Audio Input	1 channel (LINE IN, bare wire)
Audio Output	1 channel (LINE OUT, bare wire)
Alarm Linkage	Capture; preset; tour; pattern; recordings on SD card; alarm digital input; send email
Alarm Event	Motion/Tampering detection; audio detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection
Alarm I/O	2/1
Audio I/O	1/1

Power

Power Supply	12 VDC/2 A ± 10% (included) PoE+ (802.3at)
Power Consumption	Basic: 9.5 W Max.: 21.5 W (illuminator on + fan on + PTZ)

Environment

Operating Temperature	−40 °C to +65 °C (−40 °F to +149 °F)
Operating Humidity	≤ 95%
Protection	IP66, TVS 6000 V lightning proof; surge protection; voltage transient protection

Structure

Product Dimensions	170.4 mm × Ø171.1 mm (6.71" × Ø6.74")
Net Weight	2.5 kg (5.51 lb)
Gross Weight	3.2 kg (7.05 lb)

Ordering Information

Type	Model	Description
4MP PTZ Camera	DH-SD4A425DB-HNY	4MP 25x Starlight IR WizSense Network PTZ Camera
	SD4A425DB-HNY	4MP 25x Starlight IR WizSense Network PTZ Camera
	DC 12 V/2 A	Power Adapter
	PFA101	Mount Adapter
	PFB303W	Wall Mount Bracket
	PFB300C	Ceiling Mount Bracket
	PFA150	Pole Mount Bracket
	PFA151	Corner Mount Bracket
	PFB303S	Parapet Mount Bracket
	PFM900-E	Integrated Mount Tester
Accessories	TF-P100	MicroSD Memory Card
	PFB5310C	In-ceiling Mount

Accessories
Included:

 DC 12 V/2A
Power Adapter

Optional:

 PFA101
Mount Adapter

 PFB303W
Wall Mount
Bracket

 PFB300C
Ceiling Mount
Bracket

 PFA150
Pole Mount
Bracket

 PFA151
Corner Mount
Bracket

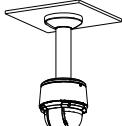
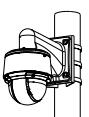
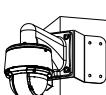
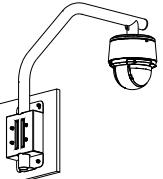
 PFB303S
Parapet Mount
Bracket

 PFM900-E
Integrated Mount
Tester

 TF-P100
MicroSD Memory
Card

 PFB5310C
In-ceiling Mount

Installation

Ceiling Mount	Ceiling Mount	Wall Mount
	PFA101+PFB300C	PFA101+PFB303W
		
Pole Mount (Vertical) PFA101+PFB303W+PFA150	Corner Mount PFA101+PFB303W+PFA151	Parapet Mount PFA101+PFB303S
		
In-ceiling Mount PFB5310C		
		

Dimensions (mm [inch])

