

DH-SD59432XA-HNR

4MP 32x Starlight IR WizSense Network PTZ Camera



Wiz Sense

- 1/2.8" STARVIS™ CMOS
- Powerful 32x optical zoom
- Starlight technology
- Max. 25/30fps@4M
- Deep-learning-based auto tracking and perimeter protection
- Support PoE+
- IR distance up to 150 m
- SMD PLUS
- IP66



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

Featuring powerful optical zoom and accurate pan/tilt/zoom performance, this camera provides an all-in-one solution for capturing long distance video surveillance for outdoor applications. Together with infrared illumination and Starlight Technology, the camera is the perfect solution for dark, lowlight applications. The series combines a day/night mechanical IR cut filter for the highest image quality in variable lighting conditions during the day, and True WDR for applications with direct sunlight or glare.

Functions

Starlight Technology

For challenging low-light applications, Dahua's Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing color details in low light down to 0.005 lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

Wide Dynamic Range

The camera achieves vivid images, even in the most intense contrast lighting conditions, using industry-leading wide dynamic range (WDR) technology. For applications with both bright and low lighting conditions that change quickly, True WDR (120 dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

PFA Technology

PFA technology has innovatively introduced new methods of judgment to ensure the accuracy and predictability of the direction of subject distance adjustment. The result is a set of advanced focusing algorithms. PFA ensures clarity of the image throughout the process of zooming and shortens focus time. The realization of PFA technology substantially improves user experience and increases product value.

Perimeter Protection

Automatically filtering out false alarms caused by animals, rustling leaves, bright lights, etc. Enables system to act secondary recognition for the targets. Improving alarm accuracy.

Environmental

Dahua cameras operate in extreme temperature environments, rated for use in temperatures from -40 °C to +70 °C (-40 °F to +158 °F) with 95% humidity. The camera complies with the IK10 Vandal Resistance impact rating. Subjected to rigorous dust and water immersion tests and certified to the IP67 Ingress Protection rating makes it suitable for demanding outdoor applications.

Protection

The camera allows for ±25% input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 8KV lightning rating provides effective protection for both the camera and its structure against lightning.

Interoperability

The camera conforms to the ONVIF (Open Network Video Interface Forum) specifications, ensuring interoperability between network video products regardless of manufacturer.

SMD PLUS

With Deep-Learning Algorithm, Dahua SMD PLUS filters the motion detection alarm triggered by non-concerned target and recognizes human and vehicle effectively, sending alarms when human and vehicle intrude.

Technical Specification
Camera

Image Sensor	1/2.8" STARVIS™ CMOS
Pixel	4MP
Max. Resolution	2560 (H) x 1440 (V)
ROM	4GB
RAM	1GB
Electronic Shutter Speed	1/3–1/30,000 s
Scanning System	Progressive
Min. Illumination	Color: 0.005 Lux@F1.3 B/W: 0.0005 Lux@F1.3 0 Lux (IR light on)
Illumination Distance	150 m (492.13 ft)
Illuminator On/Off Control	Zoom Prio/Manual/SmartIR
Illuminator Number	4

Lens

Focal Length	4.9 mm–156 mm			
Max. Aperture	F1.35–F4.4			
Field of View	H: 68.3°–2.2°; V: 38.9°–1.3°; D: 68.3°–1.4°			
Optical Zoom	32x			
Focus Control	Auto/Semi-Auto/Manual			
Close Focus Distance	0.1 m–1.5 m (0.33 ft–4.92 ft)			
Iris Control	Auto/Manual			
DORI Distance	Detect	Observe	Recognize	Identify
	3034 m (9954.06 ft)	1213 m (3979.66 ft)	606 m (1988.19 ft)	303 m (994.09 ft)

PTZ

Pan/Tilt Range	Pan: 0°–360°; Tilt: -10°–+90°
Manual Control Speed	Pan: 0.1°/s–300°/s; Tilt: 0.1°/s–200°/s
Preset Speed	Pan: 400°/s; Tilt: 300°/s
Presets	300
Tour	8 (up to 32 presets per tour)
Pattern	5
Scan	5
Speed Adjustment	Support
Power-off Memory	Support
Idle Motion	Preset/Tour/Pattern/Scanning
Protocol	DH-SD Pelco-P/D (auto recognition)

General Intelligence

Event Trigger	Motion detection, video tampering, scene changing, Network disconnection, IP address conflict, illegal access, and storage anomaly.
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IVS	Object abandoned/missing
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Artificial Intelligence

Smart Capture	Support human, motor vehicle and non-motor vehicle image capture.
Perimeter Protection	Tripwire and intrusion. Support alarm triggering by target types (human and vehicle). Support filtering false alarms caused by animals, rustling leaves, bright lights, etc.
Face Detection	Support
SMD Plus	Support
Auto Tracking	Support

Video

Compression	H.265/H.265+/H.264+/H.264/MJPEG (sub stream)
Streaming Capability	3 streams
Resolution	4M (2560 × 1440)/3M (2048 × 1536)/1080p (1920 × 1080)/720p (1280 × 960)/D1 (704 × 576/704 × 480)/CIF (352 × 288/352 × 240)
Frame Rate	Main stream: 4M/3M/1080p/1.3M/720p (1–25/30 fps) Sub stream 1: D1/CIF (1–25/30 fps) Sub stream 2: 720P (1–25/30 fps)
Bit Rate Control	Variable Bit Rate/Constant Bit Rate
Bit Rate	H.265/H.264: 3 kbps–20480 kbps
Day/Night	Auto (ICR)/Color/B/W
BLC	Support
WDR	120dB
HLC	Support
White Balance	Auto/Indoor/Outdoor/Tracking/Manual/Sodium lamp/Natural light/Street lamp
Gain Control	Auto/Manual
Noise Reduction	2D/3D
Motion Detection	Support
Region of Interest (RoI)	Support
Image Stabilization	Electronic
Defog	Support
Digital Zoom	16x
Flip	0°/180°
Privacy Masking	Up to 24 areas

Certification

Certifications	CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4-2014
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Audio

Compression	G.711A; G.711Mu; G.726; AAC; G.722.1; G.723; G.729; PCM; MPEG2-Layer2
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Port

Audio I/O	1 (Line in; bare wire)/1 (Line out; bare wire)
Alarm I/O	2/1

Network

Ethernet	RJ-45 (10/100Base-T)
Protocol	IPv4; IPv6; HTTP; HTTPS; 802.1x; Qos; FTP; SMTP; UPnP; SNMPv1/v2c/v3 (MIB-2); DNS; DDNS; NTP; RTSP; RTP; TCP; UDP; IGMP; ICMP; DHCP; PPPoE; ARP; RTCP; RTMP
Interoperability	ONVIF Profile S&G&T; CGI
Streaming Method	Unicast/Multicast
User/Host	19 (Total bandwidth 48M)
Storage	FTP; Micro SD card (256G); P2P
Browser	IE7 and newer versions Chrome 42 and older versions Firefox 52 and older versions Safari
Management Software	Smart Player Smart PSS DSS Easy4ip
Mobile Phone	IOS/Android

Power

Power Supply	DC 24 V/2.5 A ± 25%; PoE+(802.3at)
Power Consumption	11 W 24 W (IR on)

Environment

Operating Temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Operating Humidity	≤ 95%RH
Protection	IP66; TVS 6000 V lightning protection; surge protection

Structure

Dimensions	Φ186 mm x 309 mm (7.32" x 12.17")
Net Weight	3.9 kg (8.60 lb)
Gross Weight	7.01 kg (15.45 lb)
Casing	Metal

Ordering Information

Type	Part Number	Description
4M WizSense PTZ Camera	DH-SD59432XA-HNR	4MP 32x Starlight IR WizSense Network PTZ Camera, WDR, PAL
	DH-SD59432XAN-HNR	4MP 32x Starlight IR WizSense Network PTZ Camera, WDR, NTSC
	SD59432XA-HNR	4MP 32x Starlight IR WizSense Network PTZ Camera, WDR, PAL
	SD59432XAN-HNR	4MP 32x Starlight IR WizSense Network PTZ Camera, WDR, NTSC
Accessories	PFB300S	Wall Mount Bracket
	PFA110	Mount Adapter
	DC 24 V/2.5 A	Power Adapter
	PFA140	Power Box
	PFB300C	Ceiling Mount Bracket
	PFA120	Junction Box
	PFA150	Pole Mount Bracket
	PFA151	Corner Mount Bracket
	PFB303S	Parapet Mount Bracket

Accessories

Included:



PFB300S
Wall Mount Bracket



PFA110
Mount Adapter



DC 24 V/2.5 A
Power Adapter

Optional:



PFA140
Power Box



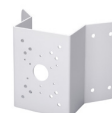
PFB300C
Ceiling Mount Bracket



PFA120
Junction Box



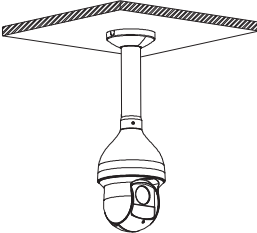
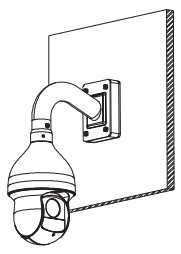
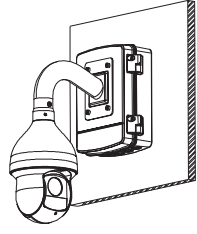
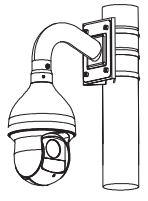
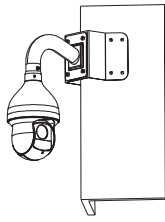
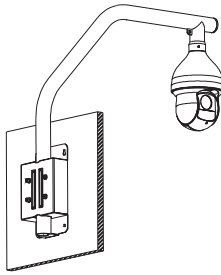
PFA150
Pole Mount Bracket



PFA151
Corner Mount Bracket



PFB303S
Parapet Mount Bracket

Ceiling Mount	Junction Mount
PFA110+PFB300C	PFA110+PFB300S+PFA120
	
Power Box Mount	Pole Mount
PFA110+PFB300S+PFA140	PFA110+PFB300S+PFA150
	
Corner Mount	Parapet Mount
PFA110+PFB300S+PFA151	PFA110+PFB303S
	

Dimensions (mm[inch])

