DH-SD49425XB-HNR-G

4MP 25x Starlight IR 4G PTZ AI Network Camera



- 1/2.8" 4Megapixel CMOS
- Support 4G
- Powerful 25x optical zoom
- Starlight technology
- Max.25/30fps@4M
- Perimeter Protection
- Support PoE+
- IR distance up to 100m
- SMD
- IP66



AI series products adopt the most advanced AI technologies, including deep learning algorithms that primarily target people and vehicles, which provides higher flexibility and accuracy for end-users. This enables the Dahua AI series to offer various advanced applications such as Face Recognition, ANPR, Metadata, People Counting, traffic data statistics, etc. The complete lineup of Dahua AI includes network (PTZ) cameras, network video recorders, servers, and more devices. Beyond seeing the world, the power of AI allows devices to perceive the environment and understand the world in a better way.

System Overview

Dahua PTZ AI network camera adopts advanced CNN deep learning algorithms to support Perimeter Protection with high accuracy. This camera possess wide monitor range, PFA algorithm that can always present a clear, focused image while zooming. The camera has very excellent low light performance due to adopting the latest starlight technology. The camera is equipped with smooth control, high quality image and good protection, which make it can meet most of the requirements of video surveillance applications.

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.

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. Subjected to rigorous dust and water immersion tests and certified to the IP66 Ingress Protection rating makes it suitable for demanding outdoor applications.

Protection

The camera allows for 6KV lightning rating,which 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.

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.

SMD

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

4G Transmission

The camera supports 4G signal transmission and the following network types: LTE/WCDMA/GSM. And it supports the following frequency band respectively:
LTE FDD: Band 1/2/3/4/7; WCDMA: Dual-band Band 1/2; GSM: 1800Hz/1900MHz

Technical Specification

Camera

Image Sensor	1/2.8" STARVIS™ CMOS
Effective Pixels	4MP
Max. Resolution	2560 (H) × 1440 (V)
ROM	4GB
RAM	1GB
Electronic Shutter Speed	1/1 s–1/30,000 s
Scanning System	Progressive
Min. Illumination	Color: 0.005Lux@F1.6 B/W: 0.0005Lux@F1.6 0Lux@F1.6 (IR light on)
IR Distance	100 m (328.08 ft)
IR On/Off Control	Zoom Prio/Manual/SmartIR
IR LEDs Number	4

Lens

Focal Length	4.8 mm–120 mm			
Max. Aperture	F1.6–F4.0			
Field of View	H: 60.0°–2.5°; V: 30.8°–2.2°; D: 66.7°–2.9°			
Optical Zoom	25x			
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
	2540 m (8333.33 ft)	1016 m (3333.33 ft)	508 m (1666.67 ft)	254 m (833.33 ft)

PTZ

Pan/Tilt Range	Pan: 0°–360° (endless) Tilt: -15°–90° (auto flip 180°)
Manual Control Speed	Pan: 0.1°–200°/s Tilt: 0.1°–120°/s
Preset Speed	Pan: 240°/s Tilt: 200°/s
Presets	300
Tour	8 (up to 32 presets per tour)
Pattern Number	5
Scanning Number	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, Storage anomaly
General Intelligence	Object Abandoned/Missing

Artificial Intelligence

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.
SMD	Support
Video Metadata	Support human, motor vehicle and non-motor vehicle image capture.

Video

Compression	H.265+/H.265/H.264+/H.264/MJPEG (sub stream)
Streaming Capability	3 streams
Resolution	4M (2560 x 1440); 3M (2048 x 1536); 1080P (1920 x 1080); 1.3M (1280 x 960); 720P (1280 × 720); D1 (704 × 576/704 × 480); CIF (352 × 288/352 × 240)
Frame Rate	Main stream: 4MP/3MP/1080P/1.3MP/720P (1–25fps) Sub stream 1: D1/CIF (1–25fps) Sub stream 2: 1080P/1.3M/720P (1–25fps)
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	120 dB
HLC	Support
White Balance	Auto/Indoor/Outdoor/Track/Manual/Sodium lamp/Natural light/Street lamp
Gain Control	Auto/Manual
Noise Reduction	Ultra DNR (2D/3D)
Motion Detection	Support
Region of Interest	Support
Electronic Image Stabilization	Support
Electronic Defog	Support
Digital Zoom	16x
Flip	180°
Privacy Masking	Up to 24 areas, and up to 8 areas in the same view

Audio

Compression	G.711a; G.711Mu; AAC; G.722.1; G.726; MPEG2-Layer2; G.729

Network

Ethernet	RJ-45 (10/100Base-T)
4G Network Type	LTE/WCDMA/GSM

4G Frequency Band	LTE FDD: Band 1/2/3/4/7 WCDMA: Dual-band Band 1/2 GSM: 1800Hz/1900MHz
Protocol	IPv4; IPv6; HTTP; HTTPS; SSL; TCP/IP; UDP; UPnP; ICMP; IGMP; SNMPv1/v2c/v3(MIB-2); ARP; RTCP; RTSP; RTP; SMTP; NTP; DHCP; DNS; PPPOE; DDNS; FTP; IP Filter; QoS; Bonjour; 802.1x
Interoperability	ONVIF Profile S&G; CGI
Streaming Method	Unicast/Multicast
User/Host	19
Edge Storage	NAS; Local PC; Micro SD card (256G)
Browser	IE7 and newer versions Chrome 45 and earlier versions Firefox 52 and earlier versions Safari (no version restrictions)
Management Software	Smart PSS; DSS; DMSS
Smart Phone	IOS/Android

Certification

Certifications	CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4-2014 UL: UL60950-1+CAN/CSA C22.2, No. 60950-1

Port

Audio In	1
Audio Out	1
Alarm Port	2/1

Power

Power Supply	DC 12V/3A PoE+ (802.3at)
Power Consumption	13W 21W (IR on)

Environment

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

Structure

Casing	Aluminium alloy ADC12
Dimensions	Φ160 mm × 295 mm (6.30" × 11.61")
Net Weight	3 kg (6.61 lb)
Gross Weight	4.8kg (10.58lb)

Ordering Information

Type	Model	Description
4MP PTZ Camera	DH-SD49425XB-HNR-G	4MP 25x Starlight IR 4G PTZ AI Network Camera, WDR, 4G, PAL
	DH-SD49425XBN-HNR-G	4MP 25x Starlight IR 4G PTZ AI Network Camera, WDR, 4G, NTSC
	SD49425XB-HNR-G	4MP 25x Starlight IR 4G PTZ AI Network Camera, WDR, 4G, PAL
	SD49425XBN-HNR-G	4MP 25x Starlight IR 4G PTZ AI Network Camera, WDR, 4G, NTSC

Accessories	PFB305W	Wall Mount
	PFA111	Mount Adapter
	DC12V/3A	Power Adapter
	PFA140	Power Box
	PFB300C	Ceiling Mount
	PFA120	Water-proof Junction Box
	PFA150	Pole Mount
	PFA151	Corner Mount
	PFB303S	Parapet Mount

Accessories

Included:



PFB305W
Wall Mount

Optional:



PFA111
Mount Adapter



DC12V/3A
Power Adapter



PFA140
Power Box



PFB300C
Ceiling Mount



PFA120
Water-proof Junction Box



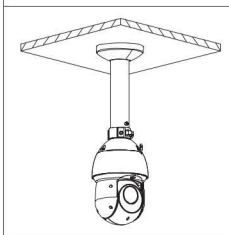
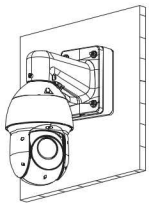
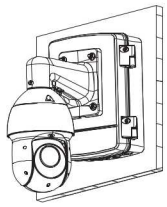
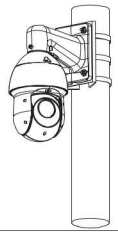
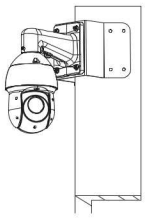
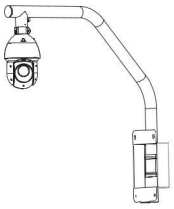
PFA150
Pole Mount



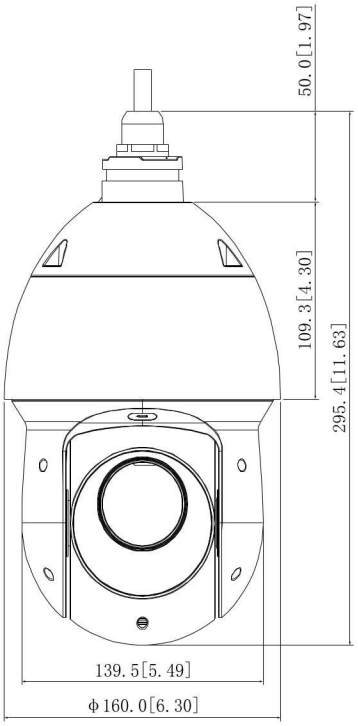
PFA151
Corner Mount



PFB303S
Parapet Mount

Ceiling Mount	Junction Mount	Power Box Mount
PFA111+PFB300C	PFB305W + PFA120	PFB305W + PFA140
		
Pole Mount	**Corner Mount**	**Parapet Mount**
PFB305W+PFA150	PFB305W+PFA151	PFA111+PFB303S
		

Dimensions (mm [inch])



Rev 001.001 © 2019 Dahua. All rights reserved. Design and specifications are subject to change without notice.
Pictures in the document are for reference only, and the actual product shall prevail.