DH-SD49425GB-HNR

4MP 25x Starlight IR Network PTZ Camera



- 1/2.8" STARVIS™ CMOS.
- 25x optical zoom.
- Starlight technology.
- Max. 25/30fps@4M.
- IR distance up to 100 m.
- Perimeter protection.
- Face detection.
- SMD 4.0.
- 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.

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.

Protection (IP66, TVS 6000 V)
IP66, TVS 6000 V lightning proof, surge protection, and voltage transient protection.

Perimeter Protection
Automatically filters out false alarms caused by animals, rustling leaves,bright lights, etc. Enables system to act secondary recognition for thetargets. Improves alarm accuracy.

Face Detection
Dahua Face Detection technology can detect the face in the image. With deep learning algorithm, the technology supports detecting, tracking, capturing and selecting the best face image, and then outputs face snapshot.

SMD 4.0
Dahua 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 H.265+
Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.

Technical Specification

Camera

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

Lens

Focal Length	5 mm–125 mm
Max. Aperture	F1.6–F3.6
Field of View	H: 51.9°–3.0°; V: 39.7°–2.2°; D: 63.1°–3.7°
Optical Zoom	25×
Focus Control	Auto; semi-auto; manual
Close Focus Distance	0.1 m–0.5 m (0.33 ft–1.64 ft)
Iris Control	Auto

DORI Distance	Detect	Observe	Recognize	Identify
	2500 m (8208.10 ft)	987.5 m (3239.83 ft)	500 m (1640.42 ft)	250 m (820.21 ft)

PTZ

Pan/Tilt Range	Pan: 0° to 360° endless Tilt: –15° to +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
Preset	300
Tour	8 (up to 32 presets per tour)
Pattern	5
Scan	5
Power-off Memory	Yes
Idle Motion	Pattern; Preset; Scan; Tour

Intelligence

IVS (Perimeter Protection)	Tripwire; intrusion; crossing fence detection; loitering detection; abandoned/missing object; fast moving; parking detection; people gathering; vehicle/human alarm classification
Face Detection	Supports face detection, optimization, tracking, capturing pictures, uploading high-quality face snapshots, and face enhancement; Supports attributes extraction. 6 attributes and 8 expressions: Gender, age, glasses, expressions (angry, sad, hate, scary, surprise, calm, happy and confused), mask, mustache; Supports face cutout: Face, one-inch photo. Capturing strategies include real-time capturing, optimization, and quality first
SMD	SMD4.0
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.
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.

Video

Video Compression	H.264H; H.264B; Smart H.265+; H.264; H.265; MJPEG(Sub Stream); Smart H.264+
Streaming Capability	3 streams
Resolution	4M (2560 × 1440); 3M (2048 × 1536); 3M (2304 × 1296); 1080p (1920 × 1080); 720p (1280 × 720); D1 (704 × 576/704 × 480); CIF (352 × 288/352 × 240)
Video 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: 1080p/1.3M/720p @(1–25/30 fps)
Bit Rate Control	CBR/VBR
Video Bit Rate	H264: 96–14,848 Kbps H265: 38–8,960 Kbps
Day/Night	Auto (ICR)/Color/B/W
BLC	Yes
WDR	Yes
HLC	Yes
White Balance	Auto; indoor; outdoor; ATW; manual; sodium lamp; natural light; street lamp
Gain Control	Auto; manual
Noise Reduction	2D NR; 3D NR
Motion Detection	Yes
Region of Interest (RoI)	Yes
Image Stabilization	Electronic (EIS)
Defog	Electronic
Digital Zoom	16×
Image Rotation	180°
Privacy Masking	Up to 24 areas can be set, with up to 8 areas in the same view
S/N Ratio	≥ 55 dB

Audio

Audio Compression	PCM; G.711a; G.711Mu; G.726; MPEG2-Layer2; G722.1; G729; G723

Network

Network Port	1 × 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
Interoperability	RTMP; 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	DSS; DMSS
Mobile Client	iOS; Android

Certification

Certifications	CE-EMC: EN 55032; EN 61000-3-3; EN 61000-3-2; EN 50130-4; EN 55035 CE-LVD: EN 62368-1 FCC: 47 CFR FCC Part15, Subpart B, NSI C63.4 UL: UL62368-1

Port

Audio Input	1 channel (LINE IN, bare wire)
Audio Output	1 channel (LINE OUT,bare wire)
Alarm Linkage	Capture; recording; send email; preset; tour; pattern; alarm digital input
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/3 A ± 10% PoE+ (802.3at)
Power Consumption	Basic: 9 W Max.: 20 W (Illuminator+alarm+PTZ)

Environment

Operating Temperature	–40 °C to +70 °C (–40 °F to +158 °F)
Operating Humidity	≤ 95%
Storage Temperature	–40 °C to +70 °C (–40 °F to +158 °F)
Storage Humidity	≤ 95%
Protection	IP66, TVS 6000 V lightning proof; surge protection; voltage transient protection

Structure

Product Dimensions	270.4 mm × Φ160 mm (10.65" × Φ6.30")
Net Weight	2.4 kg (5.29 lb)
Gross Weight	3.9 kg (8.60 lb)

Ordering Information

Type	Model	Description
4MP Camera	DH-SD49425GB-HNR	4MP 25x Starlight IR Network PTZ Camera
	SD49425GB-HNR	4MP 25x Starlight IR Network PTZ Camera
Accessories	PFB305W	Wall Mount Bracket
	DC 12 V/3A	Power Adapter
	PFA120	Junction Box
	PFA111	Mount Adapter
	PFB300C	Ceiling Mount Bracket
	PFB301C	Ceiling Mount Bracket
	PFA151	Corner Mount Bracket
	PFB303S	Parapet Mount Bracket
	PFB301S-E	Plane Mount Bracket
	PFA150	Pole Mount Bracket

Accessories

Included:



PFB305W
Wall Mount Bracket

Optional:



DC 12 V/3A
Power Adapter



PFA120
Junction Box



PFA111
Mount Adapter



PFB300C
Ceiling Mount
Bracket



PFB301C
Ceiling Mount
Bracket



PFA151
Corner Mount
Bracket



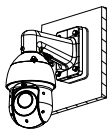
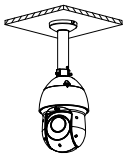
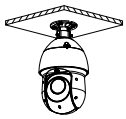
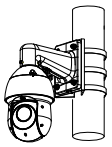
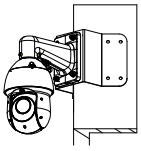
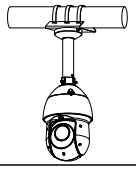
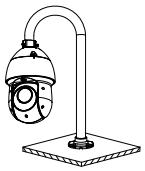
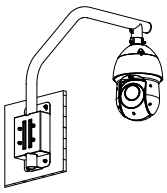
PFB303S
Parapet Mount
Bracket



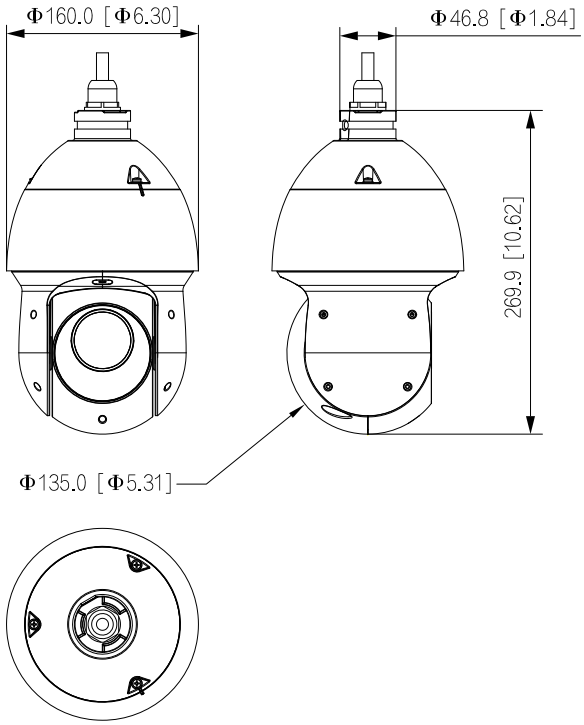
PFB301S-E
Plane Mount
Bracket



PFA150
Pole Mount
Bracket

Wall Mount	Ceiling Mount	Ceiling Mount
PFB305W+PFA120	PFA111+PFB300C	PFA111+PFB301C
		
Pole Mount(Vertical)	**Corner Mount**	**Pole Mount(Horizontal)**
PFB305W+PFA150	PFB305W+PFA151	PFA111+PFB300C+PFA150
		
Plane Mount	**Parapet Mount**	
PFB301S-E	PFA111+PFB303S	
		

Dimensions (mm[inch])



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