DH-SD49425DB-HNY-GQ-EAU

4MP 25x Starlight IR 4G Network PTZ Camera

WizSense

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.

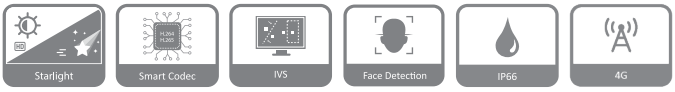
Functions

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.

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.

IVS
With advanced video algorithm, Dahua IVS technology supports intelligent functions, such as tripwire and intrusion.

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



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.

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

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.

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-TDD: Dual-band Band 38/40
LTE-FDD: Hepta-band Band 1/3/5/7/8/20/28
WCDMA: Tri-band Band 1/5/8
GSM: Tri-band Band 850/900/1800.

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.

Technical Specification

Camera

Image Sensor	1/2.8" CMOS
Pixel	4 MP
Max. Resolution	2560 (H) × 1440 (V)
ROM	256 MB
RAM	512 MB
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 (illuminator on)
Illumination Distance	100 m (328.08 ft) (IR)
Illuminator On/Off Control	Zoom Prio; Manual; Auto; Off
Illuminator Number	3 (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; manual

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°/s–80°/s Tilt: 0.1°/s–80°/s
Preset Speed	Pan: 80°/s; Tilt: 80°/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
PTZ Protocol	DH-SD Pelco-P/D(Auto recognition)

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, capturing snapshots, and enhancing face images. Face cutout is also offered, where you can cutout one face at a time and customize the size to be a one-inch photo. The supported methods for capturing snapshots are real-time capturing and quality first.
SMD	SMD 3.0
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 (2304 × 1296); 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576); CIF (352 × 288)
Video Frame Rate	Main stream: 4M/3M/1080p/1.3M/720p @(1–25/30 fps) Sub stream 1: D1/CIF/VGA@ (1–25/30 fps) Sub stream 2: 720p@(1–25/30 fps)
Bit Rate Control	CBR/VBR
Video Bit Rate	H.264: 2816 kbps–13056 kbps H.265: 1024 kbps–7936 kbps
Day/Night	Auto (ICR)/Color/B/W
BLC	Yes
WDR	120 dB
HLC	Yes
White Balance	Auto; indoor; outdoor; tracking; 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; multiple colors available
S/N Ratio	≥55 dB

Audio

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

Network

Network Port	RJ-45 (10/100 Base-T)
Carrier Network System	4G; 3G; 2G
Wireless Carrier Frequency Band	LTE-TDD: Dual-band Band 38/40 LTE-FDD: Hepta -band Band 1/3/5/7/8/20/28 WCDMA: Tri-band Band 1/5/8 GSM: Tri-band Band 850/900/1800

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	CGI; SDK; ONVIF (Profile S&G&T)
Streaming Method	Unicast/Multicast
User/Host	20 (total bandwidth: 64 M)
Storage	FTP; Micro SD card (512 GB); NAS
Browser	IE 9 and later versions Chrome 41 and later versions Firefox 50 and later versions Safari 10 and later versions
Management Software	DSS; DMSS; NVR; Smart PSS; IVSS
Mobile Client	iOS; Android

Certification

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

Port

RS-485	1 (baud rate: 1200 bps–9600 bps)
Audio Input	1 channel
Audio Output	1 channel
Alarm Linkage	Capture; recording; send email; preset; pattern; tour; 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% to +25%)
Power Consumption	Deep sleep: 0.05 W light sleep: 2.5 W Basic: 3.75 W (not pulling stream in 4G); 4.54 W (pulling stream in 4G); 7.98 W (illuminator+not pulling stream in 4G); 8.77 W (illuminator+pulling stream in 4G) Max: 15.49 W (illuminator+PTZ+pulling stream in 4G)

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	270.4 mm × Φ160 mm (10.65" × Φ6.30")
Net Weight	2.6 kg (5.73 lb)
Gross Weight	4.2 kg (9.26 lb)

Ordering Information

Type	Model	Description
4MP WizSense PTZ Camera	DH-SD49425DB-HNY-GQ-EAU	4MP 25x Starlight IR 4G WizSense Network PTZ Camera
	SD49425DB-HNY-GQ-EAU	4MP 25x Starlight IR 4G WizSense Network PTZ Camera
Accessories	PFB305W	Wall Mount Bracket
	12 VDC, 3 A	Power Adapter
	PFA126	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

PFA126
Junction Box

PFA111
Mount Adapter

PFB300C
Ceiling Mount
Bracket

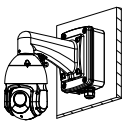
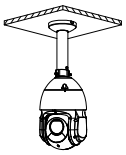
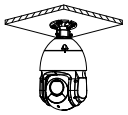
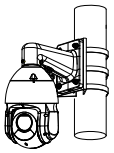
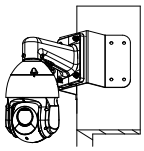
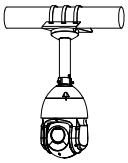
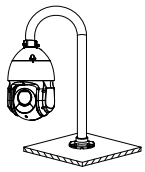
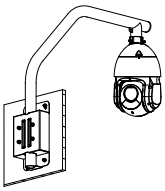
PFB301C
Ceiling Mount
Bracket

PFA151
Corner Mount
Bracket

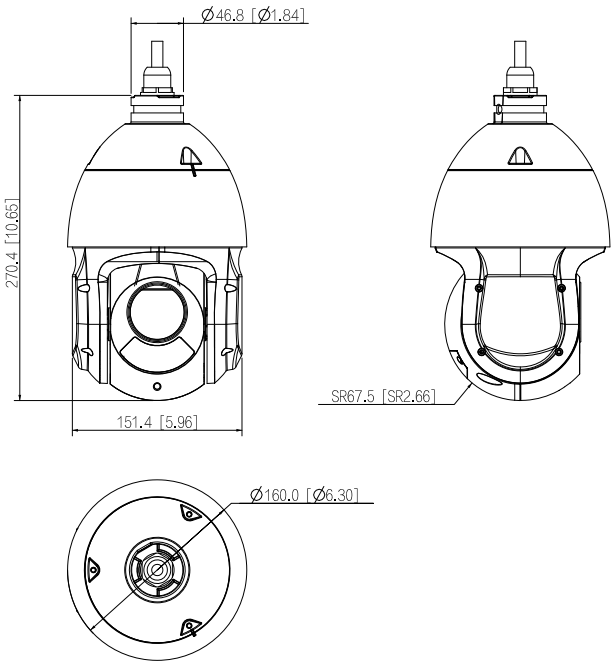
PFB303S
Parapet Mount
Bracket

PFB301S-E
Plane Mount
Bracket

PFA150
Pole Mount
Bracket

Wall Mount	Ceiling Mount	Ceiling Mount
PFB305W+PFA126	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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