DH-SD4D425MB-HNR

4MP 25x Smart Dual Light WizSense Network PTZ Camera



- 1/2.8" 4Megapixel STARVIS™ CMOS
- 25× optical zoom
- Starlight technology
- Max. 25/30 fps@4M
- IR distance up to 100m
- Warm light distance up to 100 m
- Perimeter protection
- Face detection
- SMD 4.0
- IP67



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.

Series Overview

With its powerful optical zoom and precise pan-and-tilt capabilities, the PTZ camera offers a comprehensive solution for long-distance outdoor video surveillance. Its smart dual light and AI-ISP technology ensure that images are clear and vibrant both at night and in low-light conditions. This advanced combination significantly improves nighttime surveillance, making it easier to capture critical details that traditional night vision systems might miss.

Functions

Face Detection

Supports 6 attributes and 8 expressions: Gender, age, glasses, face mask, beard and expressions (anger, sadness, disgust, fear, surprise, calm, happiness, and confusion). It also supports face cutout settings: Face, and single inch photo. Three snapshot methods are also featured: Real-time snapshot, priority snapshot, and quality priority.

IVS

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

Auto Tracking

This feature controls the pan, tilt and zoom actions of the camera to automatically track an object in motion, to keep it in view of the camera. Tracking 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.

Smart Dual Light

Dahua Smart Dual Light technology adopts smart algorithm to detect targets. Usually, the IR illuminator is on at night; when the target appears in the monitoring area, the white light is on, and the camera records the full-color video and information of key events. That is, the camera links snapshot and video with full-color image. When the target is out of the monitoring area, the white light is off and the IR illuminator is on, which reduces light pollution efficiently.

SMD4.0

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.

Protection (IP67, TVS 6000 V)

IP67, TVS 6000 V lightning proof, surge protection, and voltage transient protection.

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 s–1/30,000 s
Scanning System	Progressive
Min. Illumination	0.005 lux@F1.6 (Color, 30 IRE); 0.0005 lux@F1.6 (B/W, 30 IRE); 0 lux (illuminator on)
Illumination Distance	100 m (328.08 ft) (IR); 100 m (328.08 ft) (Warm light)
Illuminator On/Off Control	Zoom Prio; Manual; Auto; Off
Illuminator Number	2 (IR); 2 (Warm light); 2 (Dual-core light)

Lens

Focal Length	5 mm–125 mm
Max. Aperture	F1.6–F3.6
Field of View	H:54.1°–3.4°; V: 31.4°–1.9°; D: 61.1°–3.9°
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

	Lens	Detect	Observe	Recognize	Identify
DORI Distance	W	100.0 m (328.08 ft)	40.0 m (131.23 ft)	20.0 m (65.62 ft)	10.0 m (32.81 ft)
	T	2,500.0 m (8,202.00 ft)	1,000.0 m (3,280.80 ft)	500.0 m (1,640.40 ft)	250.0 m (820.20 ft)
	*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.				

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: 0.1°–240°/s; Tilt: 0.1°–200°/s
Preset	300
Tour	8
Pattern	5
Scan	5
Power-off Memory	Yes
Idle Motion	Preset;Pattern;Tour;Scan

Intelligence

IVS (Perimeter Protection)	Tripwire; intrusion; crossing fence detection; loitering detection; abandoned/missing object; fast moving; parking detection; people gathering; human alarm classification; linkage tracking
Face Detection	Supports face detection, optimization, capturing pictures, uploading high-quality face snapshots and enhancing face images. Attribute Extraction is also supported, where 6 attributes and 8 expressions can be detected. 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, quality first, and selecting a preferred image among a group of snapshots.
Smart Tracking	Auto Tracking 3.0
SMD	SMD 4.0
AcuPick	Uses deep learning algorithms and works with backend 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	Smart H.265+;H.265;Smart H.264+;H.264B;H.264M;H.264H;MJPEG(Sub Stream 1)
Streaming Capability	3 streams
Resolution	4M (2560 × 1440); 3M (2304 × 1296); 1080p (1920 × 1080); 960p (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 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/VGA/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 kbps–11,776 kbps H265: 38 kbps–7,168 kbps
Day/Night	Auto (ICR)/Color/B/W
BLC	Yes
WDR	120 dB
HLC	Yes
White Balance	Auto; indoor; outdoor; ATW; manual; sodium lamp; natural light; street lamp
Gain Control	Auto; manual; Gain priority
Noise Reduction	2D NR; 3D NR
Motion Detection	Yes
Region of Interest (RoI)	Yes
Image Stabilization	Electronic Image Stabilization (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, G.722.1, G.729, G.723

Network

Network Port	1 × RJ-45 (10/100 Base-T)
Network Protocol	HTTP;HTTPS;TCP/IP;IPv4;RTSP;UDP;SMTP;NTP;DHCP;DNS;DDNS;IPv6;802.1x;SSL;QoS;FTP;UPnP;ICMP;SNMP;IGMP;ARP;RTCP;RTP;PPPoE;RTMP;Bonjour;SMB;NFS
Interoperability	ONVIF (Profile S & Profile G & Profile T);CGI;SDK
Streaming Method	Unicast/Multicast
User/Host	20 (total bandwidth: 64 M)
Storage	Micro SD card (512 GB); FTP/SFTP; NAS
Browser	web5.0: 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

Port

Audio Input	1 channel (LINE IN, bare wire)
Audio Output	1 channel (LINE OUT,bare wire)
Alarm Input	2
Alarm Output	1 channel
Alarm Linkage	Capture; recording; send email; preset; tour; pattern; alarm digital output
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	DC: Basic: 8 W; Max: 20 W (illuminator + PTZ) PoE: Basic: 11 W; Max: 23 W (Illuminator+PTZ)
Power Adapter	Optional

Environment

Operating Temperature	–40 °C to +70 °C (–40 °F to +158 °F)
Operating Humidity	≤95%
Protection	IP67;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
Network PTZ Camera	DH-SD4D425MB-HNR	4MP 25x Smart Dual Light WizSense Network PTZ Camera
Accessories	PFB305W	Wall Mount Bracket
	PFA111	Mount Adapter
	DH-PFB300C	Ceiling Mount Bracket
	DH-PFB301S-E	Plane Mount Bracket
	DH-PFA150	Pole Mount Bracket
	DH-PFA126	Water-proof Junction Box
	DH-PFA151	Corner Mount Bracket
	DH-PFB303S	Parapet Mount Bracket
	DH-PFA120	Junction Box

Accessories

Included:



PFB305W
Wall Mount Bracket

Optional:



DH-PFA120
Junction Box



DH-PFA126
Water-proof Junction Box



DH-PFA150
Pole Mount Bracket

Optional:



DH-PFA151
Corner Mount Bracket



DH-PFB300C
Ceiling Mount Bracket



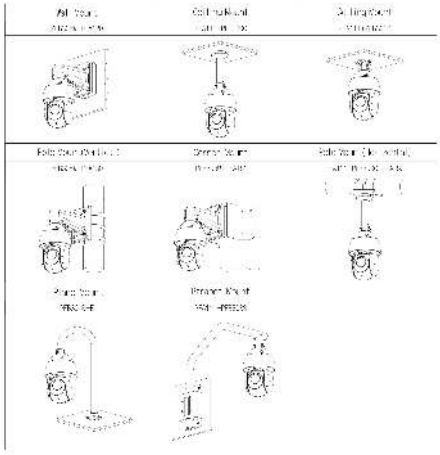
DH-PFB301S-E
Plane Mount Bracket



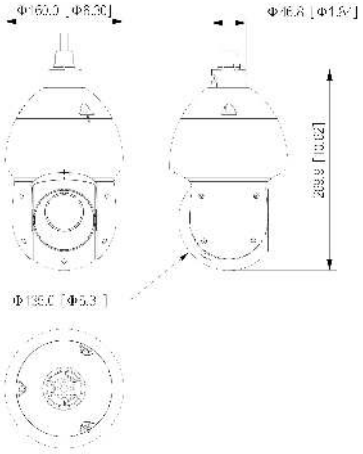
DH-PFB303S
Parapet Mount Bracket



PFA111
Mount Adapter



Dimensions (mm[inch])



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