DH-SD5A825MA-HNR

8MP 25x IR WizSense Network PTZ Camera



- 1/1.8" 8Megapixel CMOS.
- Powerful 25x optical zoom.
- Max.25/30fps@8MP.
- IR distance up to 150m.
- Perimeter Protection.
- Face Detection.
- Acupick.
- WizTracking.
- SMD 4.0.
- PoE+.
- IP67, IK10.



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

Unique and elegant, the black semicircular sphere discreetly monitors from a distance without drawing undue attention to itself. It has a powerful optical zoom, and accurate pan, tilt and zoom capabilities, providing an all-in-one solution for long distance video surveillance of outdoor scenes. Together with infrared illumination and Starlight Technology, the camera is a great solution for dark, low light conditions. The series combines a day and night mechanical IR cut filter to produce high quality images in variable lighting conditions during the day.

Functions

AI-ISP

With AI ISP technology, the camera is able to easily adapt to scenes, producing high quality images that reveal the fine details of targets.

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.

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.

AcuPick

This industry-leading search technology effectively utilizes both front-end and back-end intelligence to help with searching through massive video data to quickly and conveniently locate targets with greater precision.

Perimeter Protection

With deep learning algorithm, Dahua Perimeter Protection technology can recognize human and vehicle accurately. In restricted area (such as pedestrian area and vehicle area), the false alarms of intelligent detection based on target type (such as tripwire, intrusion, fast moving, parking detection, loitering detection and gathering detection) are largely reduced.

Technical Specification

Camera

Image Sensor	1/1.8" CMOS
Max. Resolution	3840 (H) × 2160 (V)
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1 s–1/30,000 s
Min. Illumination	0.005 lux@F1.6 (Color) 0.0005 lux@F1.6 (B/W) 0 lux (IR light on)
S/N Ratio	>56 dB
Illumination Distance	Up to 150 m (492.13 ft) (IR)
Illuminator On/Off Control	Auto;Manual;Zoomprio
Illuminator Number	4 (IR LED)
Angle Adjustment	Pan: 0° to 360° Tilt: –15° to 90°

Lens

Optical Zoom	25×
Focal Length	5.4 mm–135 mm
Max. Aperture	F1.6
Field of View	H: 61.6°–3.6°; V: 35.7°–2°; D: 66.6°–4°
Iris Control	Auto/Manual/Fixed
Close Focus Distance	0.1 m–2 m (0.33 ft–6.56 ft)

	Lens	Detect	Observe	Recognize	Identify
DORI Distance	W	108 m (354.33 ft)	42.7 m (140.09 ft)	21.6 m (70.87 ft)	10.8 m (35.43 ft)
	T	2,700 m (8,858.27 ft)	1,066.5 m (3,499.02 ft)	540 m (1,771.65 ft)	270 m (885.83 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.				

Intelligence

IVS (Perimeter Protection)	Intrusion, tripwire, fast moving (the three functions support the classification and accurate detection of vehicle, animal and human), loitering detection, people gathering, parking detection, stay detection. Offers Perimeter Protection Large-Scale AI Models to extend the target detection range and reduce the rate of false alarm.
SMD	SMD 4.0
AcuPick	Uses deep learning algorithms and works with back-end devices to accurately match targets, such as people, animal and motor vehicles, and search through live and recorded videos to quickly locate targets.
Face Detection	Face detection; snapshot; snapshot optimization; optimal face snapshot upload; face enhancement; face exposure; face attributes extraction including 6 attributes and 8 expressions; face snapshot set as
Face Detection	face or one-inch photo; snapshot strategies (real-time snapshot, quality priority and optimization snapshot); face angle filter; optimization time setting.
People Counting	Tripwire people counting and area people counting; generating and exporting report (day/month/year); queue management and exporting report (day/month); 4 rules can be set for tripwire people counting, area people counting, and queue management
Video Metadata	Motor vehicle, non-motor vehicle, face, and human body detection; snapshot; snapshot optimization; optimal face snapshot upload. Extraction of motor vehicle and non-motor vehicle attributes: extracts 9 attributes for motor vehicle and 9 attributes for non-motor vehicle. Extraction of face and human body attributes: extracts 6 attributes for face and 8 attributes for human body.
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.
Smart Tracking	WizTracking

Video

Video Compression	Smart H.265; H.265; Smart H.264; H.264; H.264B; H.264H; MJPEG (Sub Stream 1)
Smart Codec	Smart H.265+; Smart H.264+
AI Coding	AI H.265; AI H.264 *Includes smart codec technology, Smart H.265+ and Smart H.264+
Video Frame Rate	Main stream: 4K/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)
Streaming Capability	3 streams
Resolution	4K (3840 × 2160); 4M (2560 × 1440); 3M (2048 × 1536); 1080p (1920 × 1080); 960p (1920 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); CIF (352 × 288/352 × 240); VGA (640 × 480)
Bit Rate Control	VBR;CBR
Video Bit Rate	H.264: 128 kbps–16,384 kbps H.265: 51 kbps–12,288 kbps
Day/Night	Auto(ICR)/Color/B/W
BLC	Yes
HLC	Yes
WDR	140 dB
White Balance	Auto; indoor; outdoor; tracking; manual; sodium lamp; natural; street lamp
Gain Control	Auto/Manual
Noise Reduction	3D NR
Motion Detection	Yes
Region of Interest (RoI)	Yes (4 areas)
Defog	Electronic
Image Rotation	0°/180°
Privacy Masking	Up to 32 areas can be set, with up to 8 areas in the same view; multiple colors available

Audio

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

Alarm

Alarm Event	Motion/tampering detection; audio detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection

Network

Network Port	RJ-45 (10/100 Base-T)
SDK and API	Yes
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; NFS
Security	Digest;WSSE;Account lockout;Security logs;IP/MAC filtering;Generation and importing of X.509 certification;syslog;HTTPS;802.1x;Trusted boot;Trusted execution;Trusted upgrade;Session security;Security warning;SSL/TLS1.2;AES 256
Interoperability	CGI; SDK; ONVIF (Profile S & Profile G & Profile T & Profile M)
User/Host	20 (Total bandwidth: 64 M)
Storage	Micro SD card (supports max 512 GB); FTP/SFTP; NAS
Browser	IE: IE9 and earlier Chrome: 41 and earlier Firefox: 50 and earlier Safari: 10 and earlier
Management Software	DSS; DMSS
Mobile Client	iOS;Android

PTZ

Pan/Tilt Range	Pan: 0° to 360° endless Tilt: –15° to 90°, auto flip 180°
Manual Control Speed	Pan: 0.1°/s–250°/s; Tilt: 0.1°/s–140°/s
Preset	300
Preset Speed	Pan: 250°/s; Tilt: 140°/s
Tour	8 (up to 32 presets per tour)
Pattern	5
Scan	5
Power-off Memory	Yes
Idle Motion	Preset;Pattern;Tour;Scan
PTZ Protocol	DH-SD Pelco-P/D (Auto recognition)

Certification

Certifications	CE: EN 50130-4; EN 55032; EN 55035; EN 61000-3-3; EN IEC 61000-3-2; EN 62368-1

Port

Audio Input	1 channel (terminal)
Audio Output	1 channel (terminal)
Alarm Input	2 channels in: supports wet contact connection (max load 5 mA 3–5 VDC); supports dry contact connection
Alarm Output	1 channel out: dry contact, max load 1,000 mA 30 VDC/500 mA 50 VAC

Power

Power Supply	24 VDC (±25%); PoE+ (802.3at)
Power Consumption	Basic: 11 W Max (IR light + PTZ + AI ISP): 20 W

Environment

Operating Temperature	–40 °C to +65 °C (–40 °F to +149 °F)
Operating Humidity	≤95% (RH)
Protection	IP67; IK10; TVS 6000 V lightning proof; surge protection; voltage transient protection
Anti-corrosion Level	Basic Protection *The products are designed for general use and are applicable even in areas with no specific requirements for anti-corrosion protection.

Structure

Product Dimensions	332 mm × Φ190 mm (13.07" × Φ7.48")
Net Weight	4.7 kg (10.36 lb)
Gross Weight	8 kg (17.64 lb)

Ordering Information

Type	Model	Description
Network PTZ Camera	DH-SD5A825MA-HNR	8MP 25x IR WizSense Network PTZ Camera
Accessories	PFB305W	Wall Mount Bracket
	DC24V/2.5A	Power Adapter
	DH-PFB301S-E	Plane Mount Bracket
	DH-PFB300C	Ceiling Mount Bracket
	PFA111	Mount Adapter
	DH-PFA151	Corner Mount Bracket
	DH-PFA150	Pole Mount Bracket
	DH-PFB303S	Parapet Mount Bracket
	DH-PFA126	Water-proof Junction Box
	PFM900-E	Integrated Mount Tester
	DHI-TF-P100/512GB	MicroSD Card

Accessories

Included:



PFB305W
Wall Mount Bracket



DC24V/2.5A
Power Adapter

Optional:



DH-PFB301S-E
Plane Mount Bracket



DH-PFB300C
Ceiling Mount Bracket



PFA111
Mount Adapter



DH-PFA151
Corner Mount Bracket



DH-PFA150
Pole Mount Bracket



DH-PFB303S
Parapet Mount Bracket



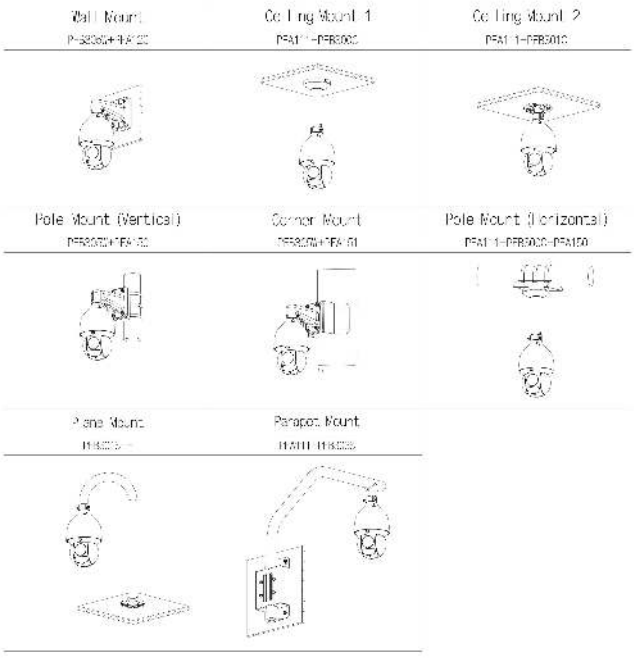
DH-PFA126
Water-proof Junction Box



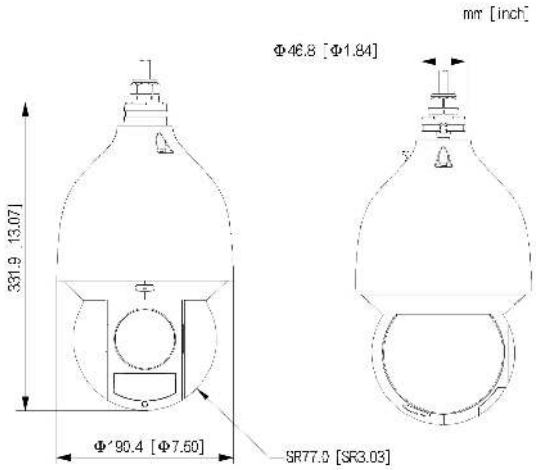
PFM900-E
Integrated Mount Tester



DHI-TF-P100/512GB
MicroSD Card



Dimensions (mm[inch])





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