

DH-SD4D225DB-HNY

2MP 25x Smart Dual Light WizSense 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.

Series Overview

With its powerful optical zoom and precise pan and tilt capabilities, the PTZ camera provides an all-in-one solution for long-distance outdoor video surveillance. The integration of smart dual light and Starlight technology makes this camera an excellent solution for monitoring in dark and low-light environments. Additionally, the series includes a day-and-night mechanical IR cut filter, ensuring high-quality images are produced across varying lighting conditions throughout the day.

Functions

Perimeter Protection

Automatically filters out false alarms caused by animals, rustling leaves, bright lights, and more, and uses secondary recognition during target detection to improve alarm accuracy.

- 1/2.8" 2Megapixel STARVIS™ CMOS.
- 25× optical zoom.
- Starlight technology.
- IR distance up to 100 m.
- Warm light distance up to 100 m.
- Max. 25/30 fps@1080p.
- H.265 encoding.
- Perimeter protection.
- Face Detection, Up to 8 faces captured simultaneously.



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.

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.

Protection (IP67, TVS 6000 V)

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

SMD 3.0

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	2 MP
Max. Resolution	1920 (H) × 1080 (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 (IR light 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 (dual light Fusion) 2 (IR) 2 (warm light)

Lens

Focal Length	4.8 mm–120 mm
Max. Aperture	F1.6–F3.5
Field of View	H: 58.5°–2.8°; V: 33.2°–1.5°; D: 67.5°–3.2°
Optical Zoom	25×
Focus Control	Auto; semi-auto; manual
Close Focus Distance	0.1 m–1.5 m (0.33 ft–4.92 ft)
Iris Control	auto

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	W	66.2 m (217.21 ft)	26.5 m (86.88 ft)	13.2 m (43.44 ft)	6.6 m (21.72 ft)
	T	1655.2 m (5430.29 ft)	662.1 m (2172.12 ft)	331.0 m (1086.06 ft)	165.5 m (543.03 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°/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	Preset;Pattern;Tour;Scan
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 pictures, and face enhancement
Smart Tracking	Auto Tracking 1.0
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	Smart H.265+;H.265;Smart H.264+;H.264;H.264B;MJPEG(Sub Stream 1)
Streaming Capability	3 streams
Resolution	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: 1080p/960p/720p@(1–25/30 fps) Sub stream 1: D1/VGA/CIF@(1–25/30 fps) Sub stream 2: 1080p/960p/720p@(1–25/30 fps)
Bit Rate Control	CBR/VBR
Video Bit Rate	H.264: 1792 kbps–8192 kbps H.265: 512 kbps–5632 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
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	G.711a; G.711Mu; G.722.1; G.726; MPEG2-Layer2; G.729
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Network

Network Port	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;SNMPv1/v2c/v3(MIB-2);IGMP;ARP;RTCP;RTP;PPPoE;IP Filter;RTMP;Bonjour;TCP;SMB;NFS
Interoperability	ONVIF (Profile S & Profile G & Profile T);CGI;SDK
Streaming Method	Unicast/Multicast
User/Host	20 (total bandwidth: 64 M)
Storage	FTP; Micro SD card (512 GB); NAS
Browser	IE 7 and later versions Chrome Firefox Safari
Management Software	DSS;DMSS
Mobile Client	iOS;Android;iPhone;iPad

Certification

Certifications	CE: EN55032/EN55024/EN50130-4
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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; preset; tour; pattern; recording; alarm digital input; audio; send email
Alarm Event	Motion/Tampering detection; audio detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection; power exception 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: 12 W Max.: 20 W (PTZ operation+WDR+Warm light on)
Power Adapter	Optional

Environment

Operating Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Operating Humidity	≤ 95%
Protection	IP67;TVS 6000 V lightning proof; surge protection; voltage transient protection

Structure

Product Dimensions	270.4 mm × Φ160.0 mm (10.65" × Φ6.30")
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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-SD4D225DB-HNY	2MP 25x Smart Dual Light WizSense Network PTZ Camera
Accessories	PFB305W	Wall Mount Bracket
	DH-PFB301S-E	Plane Mount Bracket
	DH-PFB300C	Ceiling Mount Bracket
	PFA111	Mount Adapter
	DH-PFA150	Pole Mount Bracket
	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-PFA150
Pole Mount Bracket



DH-PFA151
Corner Mount Bracket



DH-PFB300C
Ceiling Mount Bracket



DH-PFB301S-E
Plane Mount Bracket



DH-PFB303S
Parapet Mount Bracket



PFA111
Mount Adapter



DC12V/3A
Power Adapter