

DH-SDT4E425-8P-GB-APV1

8MP+4MP 25x Starlight TiOC Network Panoramic & 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

Designed with more lens than the conventional PTZ camera, the X-Spans series camera captures an expansive view, producing wide, vivid images. It has the combined power of the panoramic and detail camera in its structure and is highly cost-effective, greatly reducing the installation cost of security systems. It also leverages its two cameras to perform smart tracking, and has an independent mode that allows you to separately use each camera.

Functions

Starlight Technology

For challenging low-light conditions, Dahua's Starlight Ultra-low Light Technology has exceptional light sensitivity, capturing images in vivid detail, even in lighting as low as 0.005 lux. The camera uses a set of optical features to balance light throughout the scene, producing clear images in dark environments.

Smart Codec

With advanced scene-adaptive rate control algorithm, Dahua smart codec technology realizes the higher encoding efficiency than H.265 and H.264, provides high-quality video, and reduces the cost of storage and transmission.

- Panorama: Outputs 180° wide angle splicing image
- Detail: 1/2.8"4Megapixel STARVIS™ CMOS
- 25x optical zoom
- Max. 25/30 fps@8M
- IR distance up to 100 m
- Auto tracking 3.0
- Smart tracking
- Perimeter protection
- Active deterrence
- Smart dual light +



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.

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 Tracking

The panoramic camera links with the detail camera to track targets. When the target enters the panoramic area, the detail camera starts to monitor them and tracks their movement by rotating, zooming and focusing the PTZ camera lens. This allows the camera to produce highly detailed images with the movement of targets for security personnel.

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.

Protection (IP66, TVS 6000 V)

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

Technical Specification

Camera

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|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Image Sensor | Panorama: 1/2.7" CMOS; Detail: 1/2.8" CMOS |
| Pixel | Panorama: 8 MP; Detail: 4 MP |
| Max. Resolution | Overview channel: 4096(H) × 1860(V); Overview channel: 2560(H) × 1440(V) |
| ROM | Panorama: 4 GB; Detail: 4 GB |
| RAM | Panorama: 2 GB; Detail: 1 GB |
| Electronic Shutter Speed | 1 s–1/30,000 s |
| Scanning System | Progressive |
| Min. Illumination | Panorama: 0.005 lux@F1.4 (Color, 30 IRE); 0.0005 lux@F1.4 (B/W, 30 IRE); 0 lux (illuminator on) Detail: 0.005 lux@F1.6 (Color, 30 IRE); 0.0005 lux@F1.6 (B/W, 30 IRE); 0 lux (illuminator on) |
| Illumination Distance | Panorama: 30 m (98.43 ft) (IR); 30 m (98.43 ft) (white light); Detail: 100 m (328.08 ft) (IR); 50 m (131.23 ft) (white light) |
| Illuminator On/Off Control | Panorama: Manual; Auto; Off Detail: Zoom Prio; Manual; Auto; Off |
| Illuminator Number | Panorama: 2 (IR light); 2 (White light); Detail: 2 (IR light); 2 (Warm light) |

Lens

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| Focal Length | Panorama: 2.8 mm; Detail: 5 mm–125 mm |
| Max. Aperture | Panorama: F1.4; Detail: F1.6-F3.6 |
| Field of View | Panorama: H: 180°; V: 86°; Detail: H: 51.9°–3.0°; V: 39.7°–2.2°; D: 63.1°–3.7° |
| Optical Zoom | Panorama: NA; Detail: 25x |
| Focus Control | Auto; manual; semi-auto |
| Close Focus Distance | Panorama: 0.6 m (1.97 ft); Detail: 0.1 m–0.5 m (0.33"–1.64") |
| Iris Control | Panorama: NA; Detail: Auto; manual; iris prio |

| DORI Distance | Lens | Detect | Observe | Recognize | Identify |
|---------------|---------------------------------------------------|-----------------------------|-----------------------------|---------------------------|--------------------------|
| | Panorama: 2.8 mm; Detail: 5 mm–125 mm | 2,500 m (8202.10 ft) | 987.5 m (3239.83 ft) | 500 m (1640.42 ft) | 250 m (820.21 ft) |

PTZ

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|----------------------|---------------------------------------------------------------|
| Pan/Tilt Range | Pan: 0° to 360° endless Tilt: –15° to +90°, auto flip 180° |
| Manual Control Speed | Pan: 0.1°/s–180°/s; Tilt: 0.1°/s–90°/s |
| Preset Speed | Pan: 0.1°/s–180°/s; Tilt: 0.1°/s–90°/s |
| Preset | 300 |
| Tour | 8 (up to 32 presets per tour) |

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| Pattern | 5 |
| Scan | 5 |
| Power-off Memory | Yes |
| Idle Motion | Preset; Pattern; Tour; Scan |

Intelligence

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| IVS (Perimeter Protection) | Tripwire; intrusion; crossing fence detection; loitering detection; abandoned/missing object; fast moving; parking detection; people gathering; human alarm classification; linkage tracking |
| SMD | SMD 4.0 |

Active Deterrence

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| Light Warning | Red-Blue light warning; Flash duration: 5 s–30 s; Flash frequency: high, medium, low |
| Sound Warning | Offers 11 sound alarm and 10 custom sound alarms can be imported. Sound can be set from 0%–100%. Play times can be set from 1-10. |

Video

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| 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 | Panorama: 8M (4096 × 1860); 2M (2048 × 928); 1080p (1920 × 1080); 720p (1280 × 720); 1024 × 448; D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240); Detail: 4M (2560 × 1440); 3M (2304 × 1296); 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240) |
| Video Frame Rate | Overview channel: Main stream: 4096 × 1860 @ (1–25/30 fps) Sub stream 1: 1024 × 448/D1/VGA/CIF @ (1–25/30 fps) Sub stream 2: 2048 × 928/1080p/1.3M/720p @ (1–25/30 fps); Detail channel: 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 | Panorama: H264: 128 kbps–16,384 kbps H265: 51 kbps–13,312 kbps; Detail: H264: 96 kbps–16,384 kbps H265: 38 kbps–10,240 kbps; |
| Day/Night | Panorama: Auto; Color; B/W; Electronic Detail: Auto; Color; B/W; Electronic |
| BLC | Yes |
| WDR | Panorama: DWDR; Detail: 120 dB |
| HLC | Yes |
| White Balance | Panorama: Auto; indoor; outdoor; tracking; manual; sodium lamp; natural light; street lamp Detail: Auto; indoor; outdoor; tracking; manual; sodium lamp; natural light; street lamp |
| Gain Control | Panorama: Auto; manual; gain prio Detail: Auto; manual; gain prio |

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|--------------------------|--------------------------------------------------------------|
| Noise Reduction | Panorama: 2D NR; 3D NR Detail: Auto: 2D NR; 3D NR |
| Motion Detection | Yes |
| Region of Interest (RoI) | Yes |
| Image Stabilization | Panorama: NA Detail: Electronic Image Stabilization (EIS) |
| Defog | Panorama: Electronic Detail: Electronic |
| Digital Zoom | Panorama: NA; Detail: 16x |
| Image Rotation | Panorama: NA Detail: 180° |
| S/N Ratio | Panorama: ≥55 dB Detail: ≥55 dB |

Audio

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| Audio Compression | PCM, G.711A, G.711Mu, G.726, MPEG2-Layer2, G.722.1, G.729 |
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Network

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|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Network Port | RJ-45 (100/1,000 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;NFS |
| Interoperability | ONVIF (Profile S & Profile G & Profile T);CGI;SDK;P2P |
| 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 52 and later versions; Safari 10 and later versions |
| Management Software | DMSS;DSS Pro |
| Mobile Client | iOS;Android |

Certification

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|----------------|-------------------------------|
| Certifications | CE: EN55032/EN55024/EN50130-4 |
|----------------|-------------------------------|

Port

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|---------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Audio Input | 1 channel (LINE IN, bare wire) |
| Audio Output | 1 channel (LINE OUT, bare wire; built-in speaker (mutually exclusive)) |
| Alarm Input | 2 (on-off value input: 0–5 VDC) |
| Alarm Output | 1 channel |
| Alarm Linkage | Capture; recording; send email; preset; tour; pattern; alarm digital output; audio; warning light |
| Alarm Event | Motion/tampering detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection |

Power

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|--------------|----------------------------------|
| Power Supply | 12 VDC, 3 A ± 10%; PoE (802.3at) |
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|-------------------|---------------------------------------------------------------------------------------------------------|
| Power Consumption | Basic: 14 W; Max: 25 W (illuminator + heating glass + Siren and Light Active Deterrence + ICR + PTZ) |
|-------------------|---------------------------------------------------------------------------------------------------------|

Environment

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|-----------------------|---------------------------------------------------------------------------------|
| 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

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|--------------------|--------------------------------------------------------------------|
| Product Dimensions | 194.2 mm × 160 mm × 311 mm (7.65" × 6.30" × 12.24") (L × W × H) |
| Net Weight | 3.1 kg (6.83 lb) |
| Gross Weight | 3.1 kg (6.83 lb) |

Ordering Information

| Type | Model | Description |
|--------------------|------------------------|-----------------------------------------------------------|
| Network PTZ Camera | DH-SDT4E425-8P-GB-APV1 | 8MP+4MP 25x Starlight TiOC Network Panoramic & PTZ Camera |
| | | |
| Accessories | PFB305W | Wall Mount Bracket |
| | DH-PFB301S-E | Plane Mount Bracket |
| | DH-PFB300C | Ceiling Mount Bracket |
| | DH-PFA150 | Pole Mount Bracket |
| | DH-PFA151 | Corner mount bracket |
| | PFA111 | Mount Adapter Component |
| | DH-PFB303S | Parapet Mount Bracket |
| | DH-PFA126 | Water-proof Junction Box |
| | DC12V/3A | Power Adapter |
| | PFB301C | Ceiling Mount Bracket |

Accessories

Included:



PFB305W
Wall Mount Bracket

Optional:



DH-PFB301S-E
Plane Mount Bracket



DH-PFB300C
Ceiling Mount Bracket



DH-PFA150
Pole Mount Bracket



DH-PFA151
Corner mount bracket



PFA111
Mount Adapter
Component



DH-PFB303S
Parapet Mount Bracket



DH-PFA126
Water-proof Junction Box

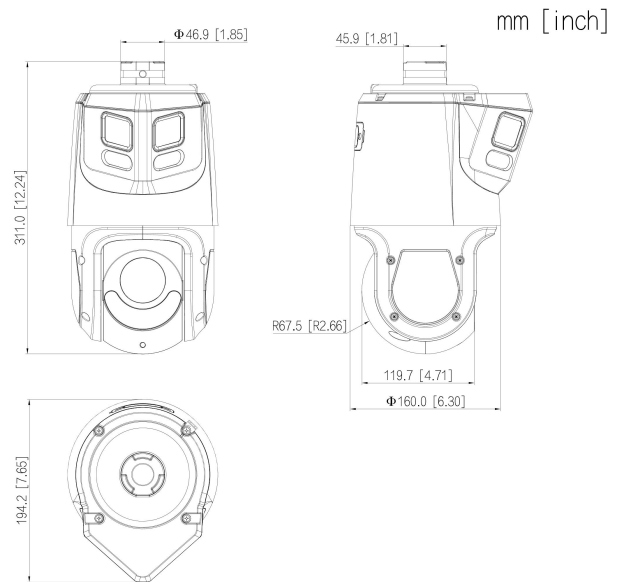


DC12V/3A
Power Adapter



PFB301C
Ceiling Mount Bracket

Dimensions (mm[inch])



| Wall Mount | Ceiling Mount 1 | Ceiling Mount 2 |
|-----------------------|-----------------|-------------------------|
| 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 | |
| | | |