

# DH-SD6C3425GB-HNR-A-PV1

4MP 25x Starlight TiOC Network PTZ Camera



WizSense

Launched by Dahua Technology, WizSense is a series of AI products and solutions that adopts 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

With its powerful optical zoom, and accurate pan and tilt capabilities, the PTZ camera provides 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

### 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.

### 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.

- 1/2.8" 4Megapixel STARVIS™ CMOS.
- 25× optical zoom.
- Starlight technology.
- Max. 25/30 fps@4MP.
- IR distance up to 150 m.
- Perimeter protection.
- Face detection.
- Full-color illuminator; red and blue warning light.
- Auto tracking 3.0
- Quick Pick.



### 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.

### SMD 4.0

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. With an AI NVR, Quick Pick technology becomes available, allowing you to easily search for and pick out human and vehicle targets from SMD event videos, prioritizing the highest matches.

### Wide Dynamic Range

The camera produces vivid images, even in high-contrast lighting conditions, by using industry-leading wide dynamic range (WDR) technology. For scenes that quickly alternate between bright and low lighting, WDR adjusts to fully capture both the bright and dark areas of a scene, producing superior quality videos.

### 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.

### Protection (IP66, TVS 6000 V)

IP66, 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   | 1/1 s–1/30,000 s  |
| Scanning System            | Progressive   |
| Min. Illumination          | Color: 0.005 lux@F1.6<br>B/W: 0.0005 lux@F1.6<br>0 lux(IR light on) |
| Illumination Distance      | 50 m (164.04 ft) (white light)<br>150 m (492.13 ft) (IR)            |
| Illuminator On/Off Control | Zoom Prio; Manual; Smart IR; Off                                    |
| Illuminator Number         | 2 (IR)<br>2 (Dual light fusion)                                     |

#### 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–1.5 m (0.33 ft–4.92 ft)               |                         |                       |                      |
| Iris Control         | Auto; manual                                |                         |                       |                      |
| DORI Distance        | Detect                                      | Observe                 | Recognize             | Identify             |
|                      | 2,500 m<br>(8202.10 ft)                     | 987.5 m<br>(3239.83 ft) | 500 m<br>(1640.42 ft) | 250 m<br>(820.20 ft) |

#### PTZ

|                      |   |
|----------------------|---|
| Pan/Tilt Range       | Pan: 0° to 360° endless<br>Tilt: –20° to +90°, auto flip 180° |
| Manual Control Speed | Pan: 0 °/s–240 °/s<br>Tilt: 0 °/s–90 °/s                      |
| Preset Speed         | Pan: 240 °/s<br>Tilt: 150 °/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   |

#### Intelligence

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

|                |   |
|----------------|---|
| Face Detection | Supports face detection, face bounding box, capturing snapshots, uploading face snapshots, enhancing face images, and selecting a preferred image among a group of snapshots. 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. |
| Auto Tracking  | Yes   |
| SMD            | Yes   |
| Quick Pick     | Yes   |

#### Active Deterrence

|               |   |
|---------------|---|
| Light Warning | Red and blue warning light. They can be configured to flash for 5 to 30 seconds with a high, medium or low frequency. |
| Sound Warning | Customizable sound alarm  |

#### 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 (2048 × 1536); 3M (2304 × 1296); 1080p (1920 × 1080); 720p (1280 × 720); 1.3M (1280 × 960); 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)<br>Sub stream 1: D1/VGA/CIF@ (1–25/30 fps)<br>Sub stream 2: 1080p/1.3M/720p@ (1–25/30 fps)  |
| Bit Rate Control         | CBR/VBR   |
| Video Bit Rate           | H264: 96 kbps–14848 kbps<br>H265: 38 kbps–8960 kbps   |
| Day/Night                | Auto (ICR)/Color/B/W  |
| BLC                      | Yes   |
| WDR                      | Yes   |
| 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 | PCM; G.711a; G.711Mu; G.726; MPEG2-Layer2; G722.1; G729; G723 |
|-------------------|---|

### Network

|                     |  |
|---------------------|--|
| Network Port        | RJ-45 (10/100 Base-T)  |
| 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/SFTP; Micro SD card (512 GB); NAS  |
| Browser             | IE 9 and later versions<br>Chrome 41 and later versions<br>Firefox 50 and later versions<br>Safari 10 and later versions               |
| Management Software | DSS; DMSS  |
| Mobile Client       | iOS; Android   |

### Certification

|                |  |
|----------------|--|
| Certifications | CE-EMC: EN 55032; EN 61000-3-3; EN 61000-3-2; EN 50130-4; EN 55035<br>CE-LVD: EN 62368-1<br>FCC: 47 CFR FCC Part15, Subpart B, NSI C63.4 |
|----------------|--|

### Port

|               |  |
|---------------|--|
| Audio Input   | 1 channel  |
| Audio Output  | 1 channel  |
| Alarm Linkage | Capture; recording; send email; preset; tour; pattern; alarm digital input; audio; warning light   |
| 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      | 24 VDC/2.5 A ± 25% (included)<br>PoE+ (802.3at)   |
| Power Consumption | Basic: 13 W<br>Max.: 23 W<br>(illuminator + red and blue warning light + speaker + PTZ working) |

### Environment

|                       |  |
|-----------------------|--|
| Operating Temperature | -40 °C to +70 °C (-40 °F to +158 °F)   |
| Operating Humidity    | ≤95%   |
| Protection            | IP66; TVS 6000 V lightning proof; surge protection; voltage transient protection |

### Structure

|                    |  |
|--------------------|--|
| Product Dimensions | 325.3 mm × Φ202.0 mm (12.81" × Φ7.95") |
| Net Weight         | 4.6 kg (10.14 lb)                      |
| Gross Weight       | 7.13 kg (15.72 lb)                     |

### Ordering Information

| Type                   | Model                   | Description                               |
|------------------------|-------------------------|---|
| 4M WizSense PTZ Camera | DH-SD6C3425GB-HNR-A-PV1 | 4MP 25x Starlight TiOC Network PTZ Camera |
|                        | SD6C3425GB-HNR-A-PV1    | 4MP 25x Starlight TiOC Network PTZ Camera |
| Accessories            | DC24V/2.5A              | Power Adapter                             |
|                        | PFB305W                 | Wall Mount Bracket                        |
|                        | PFA111                  | Mount Adapter                             |
|                        | PFB300C                 | Ceiling Mount Bracket                     |
|                        | PFB301C                 | Ceiling Mount Bracket                     |
|                        | PFB303S                 | Parapet Mount Bracket                     |
|                        | PFB301S-E               | Plane Mount Bracket                       |
|                        | PFA151                  | Corner Mount Bracket                      |
|                        | PFA150                  | Pole Mount Bracket                        |
|                        | PFA126                  | Water-proof Power Box                     |

**Accessories**

Included:



DC24V/2.5A  
Power Adapter



PFB305W  
Wall Mount  
Bracket

Optional:



PFA111  
Mount  
Adapter



PFB300C  
Ceiling Mount  
Bracket



PFB301C  
Ceiling Mount  
Bracket



PFB303S  
Parapet Mount  
Bracket



PFB301S-E  
Plane Mount  
Bracket



PFA151  
Corner Mount  
Bracket



PFA150  
Pole Mount  
Bracket



PFA126  
Water-proof  
Power Box

| 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])**

