



DH-SD5A245GB-HNR

2MP 45x Starlight IR Network PTZ Camera



Wiz Sense

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.

System 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, and True WDR for locations with direct sunlight and glare.

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.

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.

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.

- · 1/2.8" 2Megapixel STARVIS™ CMOS.
- · 45x optical zoom.
- · Starlight technology.
- · Max. 50/60fps@1080P.
- IR distance up to 150 m.
- · Auto-tracking 3.0.
- · Perimeter protection.
- · Face detection.
- · SMD 4.0.
- · IP67, IK10.











Auto-tracking

This feature controls the pan/tilt/zoom actions of the camera to automatically track an object in motion and to keep it in the scene. The tracking action 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 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.

| Face Detection Face Face Detection Gender, age, glasses, expressions (angry, adi, hatek, scary, surprise, call'n, happy and confused, mask, mustache; Supports face cutout: Face, one-inch photo. Capturing strategies include real-time capturing, optimization, and quality first. | Technical Specification | | Intelligence | |
|--|----------------------------|---|----------------------|--|
| Pace 128" | Camera | | | , , , , , , |
| Max. Resolution 1920 (94 1 1890 (91) 1920 (91) (91) (91) (91) (91) (91) (91) (91) | Image Sensor | 1/2.8" CMOS | /2.8" CMOS | |
| Max. Repulsion | Pixel | 2 MP | | Supports face detection, optimization, tracking, capturing pictures, uploading high-quality face snapshots, and face enhancement; Supports attributes extraction. 6 attributes and 8 expressions: Gender, age, glasses, expressions (angry, sad, hate, scary, surprise, calm, happy and confused), mask, |
| ROM | Max. Resolution | 1920 (H) × 1080 (V) | | |
| RAM | ROM | 4 GB | Face Detection | |
| Electronic Shutter Speed | RAM | 1 GB | race Detection | |
| Seasoning System | Electronic Shutter Speed | 1/1 s-1/30,000 s | | photo. Capturing strategies include real-time |
| Min. Illumination Service Occosing Service Service | Scanning System | Progressive | | |
| Multiminator On/Off Control Zoom Prick Manuals Smart IR; Off | Min. Illumination | B/W: 0.0005 Lux@F1.6 | Video Metadata | human bodies. It also performs tracking, takes snapshots, uploads high-quality face images and optimizes images. It extracts attributes from motor |
| Illuminator On/Off Control Zoom Price; Manual; Smart IR; Off | Illumination Distance | 150 m (492.13 ft) | | |
| People Coulting and detect human bodies, and track rages in real mm. The camera provides statistics for separate imm. The camera provides statistics for separate imm. The camera provides statistics for separate imm. The camera provides statistics for separate imdividuals' entrance and exit with up to 95% counting accuracy. People Coulting People Counting People Counting | Illuminator On/Off Control | Zoom Prio; Manual; Smart IR; Off | | to extract depth information from images. The |
| Focal Length 3.95 mm - 177.75 mm | Illuminator Number | 4 (IR) | People Counting | |
| Auto Tracking Yes | Lens | | | time. The camera provides statistics for separate |
| SMD SMD ADDRESS A | Focal Length | 3.95 mm-177.75 mm | Auto Tracking | |
| Field of View M65.7*-1.9*V-39.4*-1.1*Dr.73.1*-2.1* Auto Patrol Bit triggers the IVS rule when a target is detected and mosts the cameral link with the PT2 to rotate to the position of the target and parto lose of nits presset. | Max. Aperture | F1.6-F4.95 | - | |
| Position of the target and patrol based on its presets | Field of View | H:65.7°-1.9°V:39.4°-1.1°D:73.1°-2.1° | SIVIE | |
| Acupick Acup | Optical Zoom | 45× | Auto Patrol | makes the camera link with the PTZ to rotate to the position of the target and patrol based on its presets. |
| Pant | | | Acupick | end devices to accurately match targets, such as people and motor vehicles, and search through live |
| Detect Observe Recognize Identify 2451.7 m 972.9 m 490.3 m (245.2 m (8043.64 ft) (3191.93 ft) (1608.60 ft) (804.46 ft) Streaming Capability Streaming Capability 3 streams Streaming Capability Strea | Iris Control | Auto; manual | Vidoo | and recorded videos to quickly locate targets. |
| 2451.7 m 97.2 m 490.3 m 245.2 m (8043.64 ft) (3191.93 ft) (1608.60 ft) (804.46 ft) | | Detect Observe Recognize Identify | video | |
| DORI Distance 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. For 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° Main stream: 1080p/1.3M/720p@ (1-50/60 fps) Sub stream 2: 1080p/1.3M/720p@ (1-50/60 fps) Sub stream 2: 1080p/1.3M/720p@ (1-25/30 fps) Sub stream 2: 1080p/1.3M/720p (1-50/60 fps) Sub stream 2: 1 | | | Video Compression | |
| 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. Pan: O* to 360* endless Tilt: -15* to +90°, auto flip 180° Manual Control Speed Pan: 0.1*/s-300*/s; Tilt: 0.1*/s-200*/s Preset Speed Pan: 400*/s; Tilt: 300*/s Pattern Scan 5 White Balance Pattern; Preset; Scan; Tour Billt; Alto, Manual Call Charles Pattern; Preset; Scan; Tour | DORI Distance | , | Streaming Capability | 3 streams |
| PTZ Pan: 0° to 360° endless Tilt: -15° to +90°, auto flip 180° Main stream: 1080P/1.3M/720pe (1-50/60 fps) Sub stream 1: D1/VGA/CIF@ (1-25/30 fps) Sub stream 2: 1080p/1.3M/720p (1-25/30 fps) Sub s | DONI DISTANCE | 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, | Resolution | " , " , " , |
| Pan: 0° to 360° endless Tilt: -15° to +90°, auto flip 180° Manual Control Speed Pan: 0.1°/s-300°/s; Tilt: 0.1°/s-200°/s Preset Speed Pan: 400°/s; Tilt: 300°/s Preset Speed Pan: 400°/s; Tilt: 300°/s Preset Bit Rate Control Video Bit Rate H264: 64 kbps-10496 kbps H265: 25 kbps-6400 kbps Pan: 400°/s; Tilt: 300°/s BLC Yes Tour 8 (up to 32 presets per tour) WDR 120 dB Pattern 5 HLC Yes Scan 5 White Balance Auto/Indoor/Outdoor/Tracking/Manual/Sodium lamp/Natural light/Street lamp Power-off Memory Yes Gain Control Auto/Manual | | | Video Frame Rate | |
| Pan/Tilt Range Tilt:—15° to +90°, auto flip 180° Bit Rate Control CBR/VBR Manual Control Speed Pan: 0.1°/s–300°/s; Tilt: 0.1°/s–200°/s Preset Speed Pan: 400°/s; Tilt: 300°/s Preset Speed Pan: 400°/s; Tilt: 300°/s Preset 300 BLC Yes Tour 8 (up to 32 presets per tour) WDR 120 dB Pattern 5 HLC Yes Scan 5 White Balance Auto/Indoor/Outdoor/Tracking/Manual/Sodium lamp/Natural light/Street lamp Power-off Memory Yes Gain Control Auto/Manual | PTZ | | | |
| Preset Speed Pan: 400°/s; Tilt: 300°/s Day/Night Auto (ICR)/Color/B/W Preset Speed Pan: 400°/s; Tilt: 300°/s Day/Night Auto (ICR)/Color/B/W Preset 300 BLC Yes Tour 8 (up to 32 presets per tour) WDR 120 dB Pattern 5 HLC Yes Scan 5 White Balance Auto/Indoor/Outdoor/Tracking/Manual/Sodium lamp/Natural light/Street lamp Power-off Memory Yes Gain Control Auto/Manual | Pan/Tilt Range | | Bit Rate Control | CBR/VBR |
| Preset 300 BLC Yes Tour 8 (up to 32 presets per tour) WDR 120 dB Pattern 5 HLC Yes Scan 5 White Balance Auto/Indoor/Outdoor/Tracking/Manual/Sodium lamp/Natural light/Street lamp Power-off Memory Yes Gain Control Auto/Manual | Manual Control Speed | Pan: 0.1°/s–300°/s; Tilt: 0.1°/s–200°/s | Video Bit Rate | · · |
| Tour 8 (up to 32 presets per tour) WDR 120 dB Pattern 5 HLC Yes Scan 5 White Balance Auto/Indoor/Outdoor/Tracking/Manual/Sodium lamp/Natural light/Street lamp Power-off Memory Yes Gain Control Auto/Manual | Preset Speed | Pan: 400°/s; Tilt: 300°/s | Day/Night | Auto (ICR)/Color/B/W |
| Pattern 5 HLC Yes Scan 5 White Balance Auto/Indoor/Outdoor/Tracking/Manual/Sodium lamp/Natural light/Street lamp Power-off Memory Yes Gain Control Auto/Manual Idle Motion Pattern; Preset; Scan; Tour | Preset | 300 | BLC | Yes |
| Scan 5 White Balance Auto/Indoor/Outdoor/Tracking/Manual/Sodium lamp/Natural light/Street lamp Power-off Memory Yes Gain Control Auto/Manual Idle Motion Pattern;Preset;Scan;Tour | Tour | 8 (up to 32 presets per tour) | WDR | 120 dB |
| Power-off Memory Yes Gain Control Auto/Manual | Pattern | 5 | HLC | Yes |
| Power-off Memory Yes Gain Control Auto/Manual | Scan | 5 | White Balance | The state of the s |
| Idle Motion Pattern;Preset;Scan;Tour Noise Reduction 2D/3D | Power-off Memory | Yes | Gain Control | Auto/Manual |
| | Idle Motion | Pattern;Preset;Scan;Tour | Noise Reduction | 2D/3D |

| 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 | |
| S/N Ratio | ≥ 55 dB | |
| Audio | | |
| Audio Compression | PCM; G.711a; G.711Mu; G.726; MPEG2-Layer2; G722.1; G729; G723 | |
| Network | | |
| Network Port | 1 × 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); P2P | |
| Streaming Method | Unicast/Multicast | |
| User/Host | 20 (total bandwidth: 64 M) | |
| Storage | Micro SD card (Up to 512 GB); FTP; NAS | |
| Browser | IE 9 and later versions Chrome 41 and later versions Firefox 50 and later versions iOS 10 and later versions | |
| Management Software | DSS; DMSS | |
| Mobile Client | iOS; Android | |
| Certification | | |
| Certifications | CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4-2014 UL: UL60950-1+CAN/CSA 22.2, No.60950-1 | |
| Port | | |
| Audio Input | 1 channel | |
| Audio 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 | 24 VDC, 2.5 A ± 25% PoE+ (802.3at) | | | |
| Power Consumption | Basic: 10 W Max: 22 W (illuminator on) | | | |
| Environment | | | | |
| Operating Temperature | -40 °C to +70 °C (-40 °F to +158 °F) | | | |
| Operating Humidity | ≤ 95% (RH) | | | |
| Protection | IP67; IK10; TVS 6000V lightning proof; surge protection; voltage transient protection | | | |
| Structure | | | | |
| Product Dimensions | 332 mm × Φ190 mm (13.07" × Φ7.48") | | | |
| Net Weight | 4.7 kg (10.36 lb) | | | |

8.0 kg (17.64 lb)

Gross Weight

| Ordering Information | | | | |
|-------------------------------|------------------|--|--|--|
| Туре | Model | Description | | |
| 2MP WizSense PTZ Camera | DH-SD5A245GB-HNR | 2MP 45x Starlight IR WizSense Network PTZ Camera | | |
| | SD5A245GB-HNR | 2MP 45x Starlight IR WizSense Network PTZ Camera | | |
| Accessories | PFB305W | Wall Mount Bracket | | |
| | DC 24 V/2.5 A | Power Adapter | | |
| | PFA111 | Mount Adapter | | |
| | PFA120 | Mount Adapter | | |
| | PFB300C | Ceiling Mount Bracket | | |
| | PFA150 | Pole Mount Bracket | | |
| | PFA151 | Corner Mount Bracket | | |
| | PFB301C | Ceiling Mount Bracket | | |

Accessories

Included:







DC 24 V/2.5 A Power Adapter

Optional:



PFA111 Mount Adapter



PFA120 Water-proof Junction Box



PFB300C Ceiling Mount Bracket



PFA150 Pole Mount Bracket



PFA151 Corner Mount Bracket



PFB301C Ceiling Mount Bracket

| Wall Mount | Ceiling Mount 1 | Ceiling Mount 2 |
|-----------------------|-----------------|-------------------------|
| PFB305W+PFA120 | PFA111+PFB300C | PFA111+PFB301C |
| | | |
| Pole Mount (Vertical) | Corner Mount | Pole Mount (Horizontal) |
| PFB305W+PFA150 | PFB305W+PFA151 | PFA111+PFB300C+PFA150 |
| 0 | | 80 |

Dimensions (mm [inch])



