

DH-SD6AL245XA-HNR

2MP 45x Starlight Laser WizMind Network PTZ Camera




Launched by Dahua Technology, Dahua WizMind is a full portfolio of solutions composed of project-oriented products including IPC, NVR, PTZ, XVR, Thermal and software platform which adopts industry-leading deep learning algorithms. Focusing on customer's requirements, WizMind provides precise, reliable and comprehensive AI solutions for verticals.

System Overview

Dahua WizSense is a series of AI products and complete end-to-end solution based on deep-learning. The product focuses on human and vehicle, benefiting everyone with intelligent functions, simple configuration and inclusive products.

Functions

Perimeter Protection

Automatically filters out false alarms caused by animals, rustling leaves, bright lights, etc. Enables system to act secondary recognition for the targets. Improves alarm accuracy.

Starlight Technology

For challenging low-light applications, Dahua's Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing color details in low light down to 0.005 Lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

PFA Technology

PFA technology has innovatively introduced new methods of judgment to ensure the accuracy and predictability of the direction of subject distance adjustment. The result is a set of advanced focusing algorithms. PFA ensures clarity of the image throughout the process of zooming and shortens focus time. The realization of PFA technology substantially improves user experience and increases product value.

- 1/2.8" 2Megapixel STARVIS™ CMOS
- 45x optical zoom
- Starlight technology
- Max. 50/60 fps@1080P
- Laser distance up to 550 m
- Auto-tracking
- Perimeter protection
- Face detection
- SMD Plus



Environmental

Dahua cameras operate in extreme temperature environments, rated for use in temperatures from -40 °C to +70 °C (-40 °F to +158 °F) with 95% humidity. Subjected to rigorous dust and water immersion tests and certified to the IP67 Ingress Protection rating make it suitable for demanding outdoor applications.

Wide Dynamic Range

The camera achieves vivid images, even in the most intense contrast lighting conditions, using industry-leading wide dynamic range (WDR) technology. For applications with both bright and low lighting conditions that change quickly, True WDR (120 dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

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.

Smart H.265+

Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.

Technical Specification

Camera

| | |
|----------------------------|---|
| Image Sensor | 1/2.8" CMOS |
| Pixel | 2MP |
| Max. Resolution | 1920 (H) x 1080 (V) |
| ROM | 4 GB |
| RAM | 1 GB |
| Electronic Shutter Speed | 1/1 s–1/30000 s |
| Scanning System | Progressive |
| Min. Illumination | Color: 0.005 Lux@F1.6 B/W: 0.0005 Lux@F1.6 0 Lux (laser on) |
| Illumination Distance | 550 m (1804.46 ft) |
| Illuminator On/Off Control | Zoom Prio/Manual/SmartIR |
| Illuminator Number | 2 IR lights; 1 laser |

Lens

| | | | | |
|----------------------|---|-------------------------|-------------------------|------------------------|
| Focal Length | 3.95 mm–177.7 mm | | | |
| Max. Aperture | F1.6–F4.95 | | | |
| Field of View | H: 65.7°–1.9°; V: 39.4°–1.1°; D: 73.1°–2.1° | | | |
| Optical Zoom | 45x | | | |
| Focus Control | Auto/Semi-Auto/Manual | | | |
| Close Focus Distance | 0.01 m–3 m (0.03 ft–9.84 ft) | | | |
| Iris Control | Auto/Manual | | | |
| DORI Distance | Detect | Observe | Recognize | Identify |
| | 2451.7 m (8043.64 ft) | 972.9 m (3191.93 ft) | 490.3 m (1608.60 ft) | 245.2 m (804.46 ft) |

PTZ

| | |
|----------------------|---|
| Pan/Tilt Range | Pan: 0°–360°; Tilt: -20°→+90° |
| Manual Control Speed | Pan: 0.1°/s–200°/s; Tilt: 0.1°/s–120°/s |
| Preset Speed | Pan: 240°/s; Tilt: 200°/s |
| Preset | 300 |
| Tour | 8 (up to 32 presets per tour) |
| Pattern | 5 |
| Scan | 5 |
| Speed Adjustment | Support |
| Power-off Memory | Support |
| Idle Motion | Preset/Tour/Pattern/Scanning |
| Protocol | DH-SD Pelco-P/D (auto recognition) |

General Intelligence

| | |
|---------------|---|
| Event Trigger | Motion detection, video tampering, scene changing, network disconnection, IP address conflict, illegal access, and storage anomaly. |
| IVS | Object Abandoned/Missing |

Artificial Intelligence

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|----------------------|--|
| Smart Capture | Support human, motor vehicle and non-motor vehicle image capture. |
| Perimeter Protection | Tripwire and intrusion. Support alarm triggering by target types (human and vehicle). Support filtering false alarms caused by animals, rustling leaves, bright lights, etc. |
| SMD Plus | Support |
| Auto Tracking | Support |

Video

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|--------------------------|---|
| Compression | H.265; H.265+; H.264+; H.264; MJPEG (Sub Stream) |
| Streaming Capability | 3 streams |
| Resolution | 1080P (1920 × 1080); 1.3M (1280 × 960); 720P (1280 × 720); D1 (704 × 576/704 × 480); CIF (352 × 288/352 × 240) |
| Frame Rate | Main stream: 1080P/1.3M/720P (1–50/60 fps) Sub stream 1: D1/CIF (1–25/30 fps) Sub stream 2: 1080P/1.3M/720P (1–25/30 fps) |
| Bit Rate Control | Variable/Constant |
| Bit Rate | H.264: 3 Kbps–8192 Kbps H.265: 3 Kbps–8192 Kbps |
| Day/Night | Support |
| BLC | Support |
| WDR | 120 dB |
| HLC | Support |
| White Balance | Auto/Indoor/Outdoor/Tracking/Manual/Sodium lamp/Natural/Street lamp |
| Gain Control | Auto/Manual |
| Noise Reduction | 2D/3D |
| Motion Detection | Support |
| Region of Interest (RoI) | Support |
| Image Stabilization | Electronic |
| Defog | Electronic |
| Digital Zoom | 16x |
| Flip | 0°/180° |
| Privacy Masking | Up to 24 areas, and up to 8 areas in the same view |
| S/N Ratio | ≥ 55 dB |

Audio

| | |
|-------------|---|
| Compression | G.711A; G.711Mu; G.726; AAC; G.722.1; G.723; G.729; PCM; MPEG2-Layer2 |
|-------------|---|

Network

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|----------|-----------------------------|
| Ethernet | 1 RJ-45 Port (10/100Base-T) |
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|---------------------|--|
| Protocol | IPv4; IPv6; HTTP; HTTPS; 802.1x; QoS; FTP; SMTP; UPnP; SNMP v1/v2c/v3 (MIB-2); DNS; DDNS; NTP; RTSP; RTP; TCP; UDP; IGMP; ICMP; DHCP; PPPoE; ARP; RTCP |
| Interoperability | ONVIF Profile S&G&T; CGI |
| Streaming Method | Unicast/Multicast |
| User/Host | 20 (total bandwidth 64 MB) |
| Storage | FTP; Micro SD card (256 GB); P2P |
| Browser | IE7 and later versions Chrome 42 and earlier versions Firefox 52 and earlier versions Safari |
| Management Software | Smart PSS; DSS; DMSS; Easy4ip; IVSS |
| Mobile Phone | iOS; Android |

Certification

| | |
|---------------|--|
| Certification | CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4-2014 |
|---------------|--|

Port

| | |
|---------------|---------------------------------------|
| RS-485 | 1 (baud rate range:1200 bps-9600 bps) |
| Audio Input | 1 (LINE IN; bare wire) |
| Audio Output | 1 (LINE OUT; bare wire) |
| Two-way Audio | Support |
| Alarm I/O | 7/2 |

Power

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|-------------------|---------------------------|
| Power Supply | DC36V/2.23A (-5% to +10%) |
| Power Consumption | 20W 36W (laser on) |

Environment

| | |
|-----------------------|--|
| Operating Temperature | -40°C to +70°C (-40°F to +158°F) |
| Operating Humidity | ≤ 95%RH |
| Protection | IP67; TVS 8000V lightning protection; surge protection; voltage transient protection |

Structure

| | |
|--------------|--------------------------------------|
| Casing | Metal |
| Dimensions | 358 mm × Φ239.8 mm (14.09" × Φ9.44") |
| Net Weight | 6.8 kg (14.99 lb) |
| Gross Weight | 9.2 kg (20.28 lb) |

Ordering Information

| Type | Model | Description |
|-----------------------|--------------------|---|
| 2M WizMind PTZ Camera | DH-SD6AL245XA-HNR | 2MP 45x Startlight Laser WizMind Network PTZ Camera, PAL |
| | DH-SD6AL245XAN-HNR | 2MP 45x Startlight Laser WizMind Network PTZ Camera, NTSC |
| | SD6AL245XA-HNR | 2MP 45x Startlight Laser WizMind Network PTZ Camera, PAL |
| | SD6AL245XAN-HNR | 2MP 45x Startlight Laser WizMind Network PTZ Camera, NTSC |
| Accessories | DC36V/2.23A | Power Adapter |
| | PFA111 | Mount Adapter |
| | PFB305W | Wall Mount Bracket |
| | PFB300C | Ceiling Mount Bracket |
| | PFA150 | Pole Mount Bracket |
| | PFA120 | Junction Box |
| | PFA140 | Power Box |
| | PFA151 | Corner Mount Bracket |
| | PFB303S | Parapet Mount Bracket |

Accessories

Included:



DC36V/2.23A
Power Adapter



PFB305W
Wall Mount Bracket



PFA111
Mount Adapter

Optional:



PFB300C
Ceiling Mount
Bracket



PFA150
Pole Mount Bracket



PFA120
Junction Box



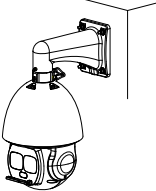
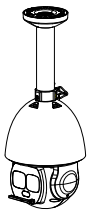
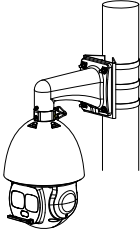
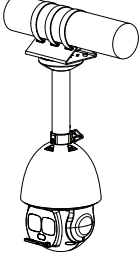
PFA140
Power Box



PFA151
Corner Mount
Bracket



PFB303S
Parapet Mount
Bracket

| Wall Mount | Ceiling Mount |
|---|---|
| PFA111+PFB303W | PFA111+PFB300C |
|  |  |
| Pole Mount(Vertical) | Pole Mount(Horizontal) |
| PFA111+PFB303W+PFA150 | PFA111+PFB300C+PFA150 |
|  |  |

Dimensions (mm[inch])

