

DH-SDT5X425-4Z4-QA-2812

4MP Starlight IR WizMind Network Dual-PTZ Camera



WizMind

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 PTZ WizMind network camera adopts advanced CNN deep learning algorithms to support face recognition with high accuracy. The Dual 4MP Starlight Smart Capture Camera consists of panorama camera and PTZ camera. Panorama camera captures panoramas, and then PTZ camera takes detailed snapshots of objects and keeps tracking objects after rule violations occur. This camera possesses wide monitor range and PFA algorithm that can always present a clear, focused image while zooming.

Functions

Dual-PTZ System

Panorama camera and Detail camera of the Dual-PTZ system system can be adjusted horizontally and vertically.

Face Recognition

Once facial attributes are extracted from captured faces, they are stored in a database where they can be easily searched and compared against other images. Once a successful match is found, the system outputs the result. The Dahua Face Recognition camera supports a built-in database that stores up to 10,000 facial images, helping the camera achieve real-time face capturing and comparison.

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 0.001 lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

- Dual PTZ system, dual vari-focal lens
- 1/1.8" 4Megapixel CMOS
- Powerful 25x optical zoom
- Starlight technology
- Max. 25/30 fps@4M
- Deep-learning-based auto tracking and perimeter protection
- Support Hi-PoE
- H.265 Encoding
- IP67



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.

Metadata

Metadata is attribute information extracted from a target which can be used for data retrieval. There are four kinds of metadata supported by Dahua PTZ WizMind cameras: Human face, human body, motor vehicle and non-motor vehicle. Facial information includes gender, age, glasses, masks, beards, etc. Human body information includes hat, top, top color, bottom, bottom color, bag, etc. Motor vehicle information includes plate color, sunshield, ornament, calling, seatbelt, smoking, annual inspection sticker, etc. Non-motor vehicle information includes type, color, top type, top color, people number, etc.

Smart tracking

Human, motor vehicle, and non-motor vehicle, or their combinations can be set as objects. Once the objects selected trigger detection rules (like tripwire and intrusion), the speed dome will track them automatically.

Perimeter Protection

Automatically filters false alarms caused by animals, rustling leaves, bright lights, etc, and enables system to act secondary recognition for the targets, which improve alarm accuracy.

Interoperability

The camera conforms to the ONVIF (Open Network Video Interface Forum) specifications, ensuring interoperability between network video products regardless of manufacturers.

Technical Specification

Camera

| | |
|----------------------------|---|
| Image Sensor | Panorama: 1/1.8" CMOS Detail: 1/1.8" CMOS |
| Pixel | Panorama: 4 MP Detail: 4 MP |
| Max. Resolution | Panorama: 2688 (H) × 1520 (V) Detail: 2688 (H) × 1520 (V) |
| ROM | 8 GB |
| RAM | 4 GB |
| Electronic Shutter Speed | Panorama: 1 s–1/30,000 s Detail: 1 s–1/30,000 s |
| Scanning System | Progressive |
| Min. Illumination | Panorama: Color: 0.001 lux@F1.3 B/W: 0.0001 lux@F1.3 Detail: Color: 0.001 lux@F1.6 B/W: 0.0001 lux@F1.6 0 lux (IR light on) |
| Illumination Distance | Panorama (white light): 30 m (98.43 ft) Detail (IR light): 100 m (328.08 ft) |
| Illuminator On/Off Control | Panorama: Zoom Prio; Manual; Auto; Off Detail: Zoom Prio; Manual; Auto; Off |
| Illuminator Number | Panorama: 4 white lights Detail: 4 IR lights |

Lens

| Focal Length | Panorama: 2.8 mm–12 mm Detail: 5.4 mm–135 mm | | | | | | | | |
|--|--|--|--|-----------|----------|--|---|--|--|
| Max. Aperture | Panorama: F1.3–F2.0 Detail: F1.6–F4.0 | | | | | | | | |
| Field of View | Panorama: H: 99.2°–45.8°; V: 59.7°–27.0°; D: 110.4°–51.7° Detail: H: 58°–3.5°; V: 35°–2°; D: 64°–4° | | | | | | | | |
| Optical Zoom | Panorama: 4× Detail: 25× | | | | | | | | |
| Focus Control | Auto; Semi-Auto; Manual | | | | | | | | |
| Close Focus Distance | Panorama: 1 m–2.5 m (3.28 ft–8.20 ft) Detail: 0.5 m–7 m (1.64 ft–22.97 ft) | | | | | | | | |
| Iris Control | Panorama: Auto Detail: Auto | | | | | | | | |
| DORI Distance | <table border="1"> <thead> <tr> <th>Detect</th> <th>Observe</th> <th>Recognize</th> <th>Identify</th> </tr> </thead> <tbody> <tr> <td>Panorama: 129 m (423.23 ft) Detail: 1,724 m (5,656.17 ft)</td> <td>Panorama: 51.3 m (168.31 ft) Detail: 690 m (2,263.78 ft)</td> <td>Panorama: 25.4 m (83.33 ft) Detail: 345 m (1,131.89 ft)</td> <td>Panorama: 12.2 m (40.03 ft) Detail: 172 m (564.30 ft)</td> </tr> </tbody> </table> | Detect | Observe | Recognize | Identify | Panorama: 129 m (423.23 ft) Detail: 1,724 m (5,656.17 ft) | Panorama: 51.3 m (168.31 ft) Detail: 690 m (2,263.78 ft) | Panorama: 25.4 m (83.33 ft) Detail: 345 m (1,131.89 ft) | Panorama: 12.2 m (40.03 ft) Detail: 172 m (564.30 ft) |
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| | | | | | | | | | |

PTZ

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|----------------------|--|
| Pan/Tilt Range | Panorama: Pan: 0° to 360° endless Tilt: 0° to 30° Detail: Pan: 0° to 305° Tilt: –10° to 90° |
| Manual Control Speed | Panorama: Pan: 0.1°/s–100°/s; Tilt: 0.1°/s–25°/s Detail: Pan: 0.1°/s–400°/s; Tilt: 0.1°/s–200°/s |
| Presets Speed | Panorama: Pan: 100°/s; Tilt: 50°/s Detail: Pan: 360°/s; Tilt: 200°/s |

| | |
|------------------|---------------------------------------|
| Presets | 300 |
| Tour | 8 (up to 32 presets per tour) |
| Scan | 5 |
| Power-off Memory | Yes |
| Idle Motion | Presets; Scan; Tour |
| PTZ Protocol | DH-SD Pelco-P/D (auto recognition) |

Intelligence

| | |
|----------------------------|---|
| Video Metadata | Support human body, human face, motor vehicle and non-motor vehicle image capture and attributes extraction |
| IVS (Perimeter Protection) | Tripwire; intrusion; climbing fences; loitering detection; abandoned/missing object; fast moving; parking detection; people gathering; vehicle/human alarm classification |
| Face Recognition | Yes |

Video

| | |
|--------------------------|--|
| Video Compression | H.264H; H.264B; Smart H.265+; H.265; MJPEG(Sub Stream); Smart H.264+; H.264M |
| Streaming Capability | 3 streams |
| Resolution | Panorama: 4M (2688 × 1520); 4M (2560 × 1440); 1080p (1920 × 1080); 960p (1280 × 960); 720p (1280 × 720); D1 (704 × 576); VGA (640 × 480); CIF (352 × 288) Detail: 4M (2688 × 1520); 4M (2560 × 1440); 1080p (1920 × 1080); 960p (1280 × 960); 720p (1280 × 720); D1 (704 × 576); VGA (640 × 480); CIF (352 × 288) |
| Video Frame Rate | Panoramic: Main stream: 4M/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/CIF (1–25/30 fps) Detail: Main stream: 4M/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/CIF (1–25/30 fps) |
| Bit Rate Control | CBR; VBR |
| Video Bit Rate | H.264: 512 Kbps–13056 Kbps H.265: 204 Kbps–7936 Kbps |
| Day/Night | Panorama: Auto (ICR) Detail: Auto (ICR) |
| BLC | Yes |
| WDR | Panorama: 120 dB 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 | Auto; Manual |
| Noise Reduction | 2D NR; 3D NR |
| Motion Detection | Yes |
| Region of Interest (RoI) | Yes |
| Defog | Electronic |
| Digital Zoom | 16× |
| Image Rotation | 180° |

| | |
|-----------------------|--|
| S/N Ratio | Panorama: ≥ 55 dB Detail: ≥ 55 dB |
| Audio | |
| Audio Compression | G.711a; G.711mu; G.726; MPEG2-Layer2; G.722.1; G.729; G723 |
| Network | |
| Network Port | RJ-45 (10/100 Base-T) |
| Network Protocol | TCP; FTP; RTMP; IPv6; IPv4; DNS; RTCP; PPPoE; NTP; RTP; 802.1x; HTTPS; SNMP; DDNS; UPnP; ICMP; UDP; IGMP; HTTP; DHCP; SMTP; SNMP v1/v2c/v3 (MIB-2); QoS; RTSP; ARP |
| Interoperability | CGI; ONVIF Profile S&G&T; GB/T28181 |
| Streaming Method | Unicast; Multicast |
| User/Host | 20 (total bandwidth: 64 M) |
| Storage | FTP; Micro SD card (512 GB) |
| Browser | IE9 and later versions Chrome 41 and later versions Firefox 50 and later versions Safari 10 and later versions |
| Management Software | DSS; NVR; Smart PSS |
| Mobile Client | iOS; Android |
| Port | |
| Audio Input | 1 channel (LINE IN, bare wire) |
| Audio Output | 1 channel (LINE OUT, bare wire) |
| Two-way Audio | Yes |
| Alarm Linkage | Capture; preset; tour; recordings on SD card; alarm digital input; send email |
| Alarm Event | Motion/tampering detection; audio detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection; illegal access |
| Alarm I/O | 2/1 |
| Audio I/O | 1/1 |
| Power | |
| Power Supply | 36 VDC, 2.23 A (± 25%) Hi-PoE |
| Power Consumption | Basic: 21 W Max.: 40 W (PTZ, zoom, focus, IR light, white light, and smart plan enabled) |
| Environment | |
| Operating Temperature | -40 °C to +65 °C (-40 °F to +149 °F) |
| Operating Humidity | ≤ 95% (RH) |
| Protection | IP67; TVS 8000 V lightning protection; surge protection; voltage transient protection |
| Structure | |
| Product Dimensions | 385 mm × Φ277 mm (15.16" × Φ10.91") |
| Net Weight | 9 kg (19.84 lb) |
| Gross Weight | 13.8 kg (30.42 lb) |

Ordering Information

| Type | Model | Description |
|-----------------|-------------------------|---------------------------------------|
| Dual-PTZ Camera | DH-SDT5X425-4Z4-QA-2812 | 4MP 25 Ordinary IR NETWORK PTZ CAMERA |
| Accessories | 36 VDC/2.23A | Power Adapter |
| | PFB306W-S | Wall Mount Bracket |
| | PFA150 | Pole Mount Bracket |
| | PFB300C-S | Ceiling Mount Bracket |

Accessories

Included:



36 VDC/2.23A
Power Adapter



PFB306W-S
Wall Mount Bracket

Optional:



PFA150
Pole Mount Bracket



PFB300C-S
Ceiling Mount Bracket

| Wall Mount | Ceiling Mount | Pole Mount (Vertical) |
|------------------|-------------------------|-----------------------|
| PFB306W-S | PFB300C-S | PFB306W-S+PFA150 |
| | | |
| Corner Mount | Pole Mount (Horizontal) | |
| PFB306W-S+PFA151 | PFB300C-S+PFA150 | |
| | | |

Dimensions (mm[inch])

