

DH-SDT5X405-4F-WA

4MP Starlight+ IR WizMind Network Dual-PTZ Camera




- Dual-PTZ system
- 1/1.8" 4Megapixel CMOS
- Powerful 5x optical zoom
- Starlight+ technology
- Max. 25/30fps@4M
- Deep-learning-based auto tracking and perimeter protection
- Support Hi-PoE
- H.265 Encoding
- IP67



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 possess 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 features 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 capture 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.

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 feature attribute information extracted from a target object which can be used for data retrieval. There are four kinds of metadata supported by Dahua PTZ WizMind camera: human face, human body, motor vehicle and non-motor vehicle metadata. 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, type, vehicle 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 detail camera will track them automatically.

Perimeter Protection

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

Interoperability

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

Technical Specification

Camera

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|----------------------------|--|
| Image Sensor | Panoramic: 1/1.8" CMOS Detail: 1/1.8" CMOS |
| Pixel | Panoramic: 4MP Detail: 4MP |
| Max. Resolution | Panoramic: 2688 (H) ×1520 (V) Detail: 2688 (H) ×1520 (V) |
| ROM | 8GB |
| RAM | 4GB |
| Electronic Shutter Speed | Panoramic: 1/3 s–1/100000 s Detail: 1/1 s–1/100000 s |
| Scanning System | Interlaced |
| Min. Illumination | Panoramic: Color: 0.0005Lux@F1.0 B/W: 0.0001Lux@F1.0 Detail: Color: 0.001Lux@F1.3 B/W: 0.0001Lux@F1.3 0Lux (IR light on) |
| Illumination Distance | Panoramic (white light): 20 m (75.46 ft)—face recognition 30 m (98.43 ft)—video metadata Detail (IR light): 100 m (328.08 ft) |
| Illuminator On/Off Control | Panoramic: SmartIR/Manual/Off Detail: Zoom Prio/Manual/SmartIR/Off |
| Illuminator Number | 4 IR lights; 4 white lights |

Lens

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|----------------------|--|--|---|--|
| Focal Length | Panoramic: 6 mm Detail: 10 mm–50 mm | | | |
| Max. Aperture | Panoramic: F1.0 Detail: F1.3–F1.5 | | | |
| Field of View | Panoramic: H: 57°; V: 31°; D: 66° Detail: H: 45°–10°; V: 26°–5.7°; D: 51°–11.5° | | | |
| Optical Zoom | 5x | | | |
| Focus Control | Auto/Semi-Auto/Manual | | | |
| Close Focus Distance | Panoramic: 0.2 m (0.66 ft) Detail: 0.5 m–3 m (1.64 ft–9.84 ft) | | | |
| Iris Control | Panoramic: Fixed Detail: Auto | | | |
| DORI Distance | Detect | Observe | Recognize | Identify |
| | Panoramic: 110 m (360.89 ft) Detail: 690 m (2263.78 ft) | Panoramic: 44 m (144.36 ft) Detail: 276 m (905.51 ft) | Panoramic: 22 m (72.18 ft) Detail: 138 m (452.76 ft) | Panoramic: 11 m (36.09 ft) Detail: 69 m (226.38 ft) |

PTZ

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|----------------------|---|
| Pan/Tilt Range | Panoramic: Pan: 0°–360° endless; Tilt: 0°–30° Detail: Pan: 0°–250°; Tilt: -10°–90° |
| Manual Control Speed | Panoramic: Pan: 0.1°/s–100°/s; Tilt: 0.1°/s–25°/s Detail: Pan: 0.1°/s–120°/s; Tilt: 0.1°/s–50°/s |
| Preset Speed | Panoramic: Pan: 100°/s; Tilt: 50°/s Detail: Pan: 360°/s; Tilt: 200°/s |
| Presets | 300 |
| Tour | 8 (up to 32 presets per tour) |

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|------------------|---------------------------------------|
| Pattern | 5 |
| Scan | 5 |
| Power-off Memory | Support |
| Idle Motion | Preset/Tour/Pattern/Scanning |
| Protocol | DH-SD Pelco-P/D (auto recognition) |

Artificial Intelligence

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|----------------------|--|
| Video Metadata | Support human body, human face, motor vehicle and non-motor vehicle image capture and attributes extraction. |
| 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. |
| Face Recognition | Support |

Video

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|--------------------------|---|
| Compression | H.265/H.265+/H.264+/H.264/MJPEG (sub stream) |
| Streaming Capability | 3 streams |
| Resolution | Panoramic: 4M (2688 × 1520); 4M (2560 × 1440); 1080P (1920 × 1080); 960P (1280 × 960); 720P (1280 × 720); D1 (704 × 576/704 × 480); CIF (352 × 288/352 × 240) Detail: 4M (2688 × 1520); 4M (2560 × 1440); 1080P (1920 × 1080); 960P (1280 × 960); 720P (1280 × 720); D1 (704 × 576/704 × 480); CIF (352 × 288/352 × 240) |
| Frame Rate | Main stream: 4M/1080P/1.3M/720P (1–25/30 fps) Sub stream 1: D1/CIF (1–25/30 fps) Sub stream 2: 1080P/1.3M/720P/CIF (1–25/30 fps) |
| Bit Rate Control | Variable Bit Rate/Constant Bit Rate |
| Bit Rate | H.264: 2816 kbps–13056 kbps H.265: 1024 kbps–7936 kbps |
| Day/Night | Panoramic: Color/B/W; Detail: Auto (ICR) |
| BLC | Support |
| WDR | Panoramic: 120dB; Detail: 120dB |
| HLC | Support |
| White Balance | Panoramic: 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/3D |
| Motion Detection | Support |
| Region of Interest (RoI) | Support |
| Image Stabilization | Electronic |
| Defog | Support |
| Digital Zoom | 16x |
| Flip | 0°/180° |
| Audio | |
| Compression | G.711A; G.711Mu; G.726; AAC; MPEG2-Layer2; G.722.1; G.729 |

Network

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| Ethernet | RJ-45 (10/100Base-T) |
| Protocol | IPv4; IPv6; HTTP; HTTPS; 802.1x; Qos; FTP; SMTP; UPnP; SNMP; DNS; DDNS; NTP; RTSP; RTP; TCP; UDP; IGMP; ICMP; DHCP; PPPoE; ARP; SNMPv1/v2c/v3(MIB-2); RTCP |
| Interoperability | ONVIF Profile S&G&T; CGI |
| Streaming Method | Unicast/Multicast |
| User/Host | 20 (Total bandwidth 64M) |
| Storage | P2P; FTP; Micro SD (128G) |
| Browser | IE7 and later versions Chrome 45 and earlier versions Firefox 52 and earlier versions Safari 12 and earlier versions |
| Management Software | SmartPSS/DSS/NVR |

Certification

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

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| Audio Input | 1 (LINE IN bare wire) |
| Audio Output | 1 (LINE OUT bare wire) |
| Alarm I/O | 2/1 Digital input: 0-5V DC |

Power

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|-------------------|---|
| Power Supply | DC36V/2.23A±25% Hi-PoE |
| Power Consumption | Basic: 21W Max.: 40W (PTZ, zoom, focus, IR light, white light, and smart plan enabled) |

Environment

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

Structure

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|--------------|-------------------------------------|
| 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 |
|-----------------------------|--------------------|--|
| 4MP WizMind Dual-PTZ Camera | DH-SDT5X405-4F-WA | 4MP Starlight+ IR WizMind Network Dual-PTZ Camera, PAL |
| | DH-SDT5X405N-4F-WA | 4MP Starlight+ IR WizMind Network Dual-PTZ Camera |
| | SDT5X405-4F-WA | 4MP Starlight+ IR WizMind Network Dual-PTZ Camera |
| | SDT5X405N-4F-WA | 4MP Starlight+ IR WizMind Network Dual-PTZ Camera |

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|-------------|-------------|-----------------------|
| Accessories | DC36V/2.23A | Power Adapter |
| | PFB306W-S | Wall Mount Bracket |
| | PFA150 | Pole Mount Bracket |
| | PFB300C-S | Ceiling Mount Bracket |

Accessories

Included:



DC36V/2.23A
Power Adapter



PFB306W-S
Wall Mount Bracket

Optional:



PFA150
Pole Mount Bracket



PFB300C-S
Ceiling Mount Bracket

| Wall Mount | Pole Mount | Ceiling Mount |
|------------|------------------|---------------|
| PFB306W-S | PFA150+PFB306W-S | PFB300C-S |
| | | |

Dimensions (mm[inch])

