

# DH-SDT7C424-4F-ZBZJ-APV-0400

4 MP 24x Startlight IR WizMind Network Panoramic + PTZ Camera



Wiz Mind

- Panoramic: 1/1.8" 4 Megapixel F1.0 STARVIS™ CMOS
- Detail: 1/2.8" 4 Megapixel STARVIS™ CMOS
- 24x optical zoom, 16x digital zoom
- Starlight+ technology
- Max. 25/30 fps@4 MP
- IR distance up to 150 m
- Auto-tracking
- Perimeter protection
- Sound and light alarm



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

With its industry-leading deep learning algorithm, the camera has advanced monitoring functions and strong detection capabilities. It is equipped with GPU chip and Smart Codec (H.265), making it highly efficient at encoding for improved video quality with reduced bandwidth and storage requirements. The camera supports smart tracking, seeing both the panorama (complete) and detail (clear) with one product. It also supports monitoring and detection of multiple perimeters, and can perform large-scale detection through its 4 mm fixed focal. Detection is combined with sound and light alarm, broadcasting multiple warning recordings, which can be applied to different scenarios.

## 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.

### 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.

### Smart Tracking

The camera supports smart tracking, seeing both the panorama (complete) and detail (clear) with one product.

### Smart Illumination Technology

With its built-in IR illuminator (150 m), the camera balances and evens out the effect of illuminator by using an algorithm that matches zoom rate with IR illuminator power.

### 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.

## Scenes

The camera can be widely used in complex security monitoring scenes such as the periphery of residential areas, entrances and exits, subway entrances, sidewalks, pedestrian zones, roads, lookout post, parks, scenic areas, streets, stations, and perimeters.

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**Technical Specification**

**Camera**

|                            |  |
|----------------------------|--|
| Image Sensor               | Panoramic: 1/1.8" CMOS<br>Detail: 1/2.8" CMOS  |
| Pixel                      | Panoramic: 4 MP<br>Detail: 4 MP  |
| Max. Resolution            | Panoramic: 2560 (H) × 1440 (V)<br>Detail: 2560 (H) × 1440 (V)  |
| ROM                        | Panoramic: 4 GB<br>Detail: 256 MB  |
| RAM                        | Panoramic: 1 GB<br>Detail: 1 GB  |
| Electronic Shutter Speed   | Panoramic: 1/1 s–1/30,000 s<br>Detail: 1/1 s–1/30,000 s  |
| Scanning System            | Progressive Scanning   |
| Min. Illumination          | Panoramic:<br>Color: 0.001 lux@F1.0<br>B/W: 0.0001 lux@F1.0<br>0 lux (white light on)<br>Detail:<br>Color: 0.005 lux@F1.6<br>B/W: 0.0005 lux@F1.6<br>0 lux (IR light on) |
| Illumination Distance      | 30 m (98.44 ft) (white light)<br>150 m (49.13 ft) (IR)   |
| Illuminator On/Off Control | Zoom Prio; manual; auto; off   |
| Illuminator Number         | Panoramic: 4x white light<br>Detail: 2x white light; 4x IR   |

**Lens**

|                      |  |  |  |  |
|----------------------|--|--|--|--|
| Focal Length         | Panoramic: 4 mm<br>Detail: 4.8 mm–115 mm   |  |  |  |
| Max. Aperture        | Panoramic: F1.0<br>Detail: F1.6–F3.6   |  |  |  |
| Field of View        | Panoramic:<br>H: 95°; V: 52.5°; D: 116°<br>Detail:<br>H: 53.1°–3.4°; V: 30.4°–1.95°; D: 59.3°–3.9° |  |  |  |
| Optical Zoom         | 24x  |  |  |  |
| Focus Control        | Auto; Semi-Auto; Manual  |  |  |  |
| Close Focus Distance | Panoramic: 0.2 m (0.66 ft)<br>Detail: 0.5 m–5 m (1.64 ft–16.4 ft)                                  |  |  |  |
| Iris Control         | Panoramic: Fixed<br>Detail: Auto; manual; fixed  |  |  |  |
| DORI Distance        | Detect   | Observe  | Recognize  | Identify   |
|                      | Panorama:<br>102 m<br>(334.66 ft)<br>Detail:<br>1,928 m<br>(6325.46 ft)                            | Panorama:<br>40.8 m<br>(133.86 ft)<br>Detail:<br>771.2 m<br>(2530.18 ft) | Panorama:<br>20.4 m<br>(66.9 ft)<br>Detail:<br>385.6 m<br>(1265.09 ft) | Panorama:<br>10.2 m<br>(33.46 ft)<br>Detail:<br>192.8 m<br>(632.55 ft) |

**PTZ**

|                      |   |
|----------------------|---|
| Pan/Tilt Range       | Pan: 0° to 360° endless<br>Tilt: –20° to +90°, auto flip 180° |
| Manual Control Speed | Pan: 0.1°–160°/s<br>Tilt: 0.1°–120°/s                         |
| Preset Speed         | Pan: 240°/s; Tilt: 200°/s                                     |
| Pre-Record           | Pre-Record  |

|                  |                                       |
|------------------|---------------------------------------|
| Tour             | 8 (up to 32 presets per tour)         |
| Pattern          | 5                                     |
| Scan             | 5                                     |
| Power-off Memory | Yes                                   |
| Idle Motion      | Preset, Tour, Scan, Track             |
| PTZ Protocol     | DH–SD<br>Pelco–P/D (auto recognition) |

**Intelligence**

|                            |   |
|----------------------------|---|
| Face Detection             | Yes   |
| IVS (Perimeter Protection) | Tripwire; intrusion; climbing fences; loitering detection; abandoned/missing object; fast moving; parking detection; people gathering; vehicle/human alarm classification; linkage tracking |
| Auto Tracking              | Yes   |

**Video**

|  |   |
|--|---|
| Video Compression                        | H.265, H.264B, H.264M, H.264H, MJPEG, smart H.265, smart H.264  |
| Streaming Capability                     | 3 streams   |
| Resolution                               | Panoramic:<br>4M (2560 X 1440) , 1080p (1920 × 1080) , 1.3M (1280 × 960) , 720p (1280 × 720) , D1 (704 × 576/704 × 480) , CIF (352 × 288/352 × 240)<br>Detail:<br>4M (2560 X 1440) , 1080p (1920×1080) , 1.3M (1280 × 960) , 720p (1280 × 720) , D1 (704 × 576/704 × 480) , CIF (352 × 288/352 × 240) |
| Default Bit Rate with Default Resolution | 3072 Kbps (2560 × 1440, H.265)  |
| Video Frame Rate                         | Panoramic:<br>Main stream: 4M/1080p/1.3M/720p (1–25/30 fps)<br>sub stream 1: D1/CIF (1–25/30 fps)<br>sub stream 2: 720p/CIF (1–25/30 fps)<br>Detail:<br>Main stream: 4M/1080p/1.3M/720p (1–25/30 fps)<br>sub stream 1: D1/CIF (1–25/30 fps)<br>sub stream 2: 720p/CIF (1–25/30 fps)                   |
| Bit Rate Control                         | Constant Bite Rate; Variable Bite Rate  |
| Video Bit Rate                           | H. 265: 1024 Kbps–7936 Kbps   |
| Day/Night                                | Panoramic: Color/B/W<br>Detail: Auto (ICR)/Color/B/W  |
| BLC                                      | Panoramic: Yes<br>Detail: Yes   |
| WDR                                      | Yes   |
| HLC                                      | Panoramic: Yes<br>Detail: Yes   |
| White Balance                            | Panoramic: Auto; indoor; outdoor; tracking; manual;<br>sodium lamp; natural light; street lamp<br>Detail: Auto; indoor; outdoor; tracking; manual; sodium lamp; natural light; street lamp  |
| Gain Control                             | Panoramic: Auto; manual<br>Detail: Auto; manual   |
| Noise Reduction                          | Panoramic: 2D NR; 3D NR<br>Detail: 2D NR; 3D NR   |
| Motion Detection                         | Yes   |
| Region of Interest (RoI)                 | Yes   |

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|           |   |
|-----------|---|
| Defog     | Panoramic: Electronic Defog<br>Detail: Electronic Defog |
| Flip      | 180°  |
| S/N Ratio | ≥ 55 dB   |

**Certification**

|                |   |
|----------------|---|
| Certifications | CE: EN55032/EN55024/EN50130-4<br>FCC: 47 CFR FCC Part15, Subpart B, Class A ANSI C63.4-2014 |
|----------------|---|

**Audio**

|                   |  |
|-------------------|--|
| Audio Compression | G.711a; G.711Mu; G.726; MPEG2–Layer2; G722.1 |
|-------------------|--|

**Network**

|                     |   |
|---------------------|---|
| Network Port        | RJ-45 (10/100 Base–T)   |
| Network Protocol    | HTTP, HTTPS, IPv4, RTSP, UDP, SMTP, NTP, DHCP, DNS, DDNS, IPv6, 802.1x, Qos, FTP, UPnP, ICMP, SNMP, SNMPv, 1/v2c/v3 (MIB-2), IGMP, ARP, RTCP, RTP, PPPoE, TCP |
| Interoperability    | ONVIF, CGI, Dahua SDK   |
| Streaming Method    | Unicast/Multicast   |
| User/Host           | 20  |
| Storage             | FTP; Micro SD card (128 GB)   |
| Browser             | IE7 and later versions<br>Chrome 42 and earlier versions<br>Firefox 52 and earlier versions<br>Safari   |
| Management Software | Smart PSS, DSS, NVR   |
| Mobile Client       | IOS, Android, iPhone, iPad, Windows Phone   |

**Port**

|               |   |
|---------------|---|
| Alarm I/O     | 2/1   |
| Audio I/O     | 1/1   |
| Two-way Audio | Yes   |
| Alarm Linkage | Capture; preset; tour; pattern; recording; triggering on-off value output; audio; sending email   |
| Alarm Event   | Motion/tampering detection, audio detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection; power exception detection |

**Power**

|                   |  |
|-------------------|--|
| Power Supply      | 36 VDC/2.23 A ± 25% (included)   |
| Power Consumption | Basic: 20 W<br>Max. (illuminator + heater + PTZ working + sound and light alarm): 45 W |

**Environment**

|                       |   |
|-----------------------|---|
| Operating Temperature | –40 °C to +65 °C (–40 °F to +149 °F)  |
| Operating Humidity    | ≤ 95%   |
| Protection            | IP66; TVS 6000 V lightning proof, surge protection and voltage transient protection |

**Structure**

|                      |   |
|----------------------|---|
| Casing               | Plastic + aluminum alloy                                      |
| Product Dimensions   | 358 mm × Φ202 mm (14.09" × 7.95")                             |
| Packaging Dimensions | 520 mm × 450 mm × 120 mm (21.42" × 7.70" × 6.75") (L × W × H) |

|              |                    |
|--------------|--------------------|
| Net Weight   | 5.6 kg (12.35 lb)  |
| Gross Weight | 7.15 kg (15.77 lb) |

**Ordering Information**

| Type               | Part Number                  | Description   |
|--------------------|------------------------------|---|
| Network PTZ Camera | DH-SDT7C424-4F-ZBZJ-APV-0400 | 4 MP 24x Startlight White Light PTZ AI Network Camera |
| Accessories        | 36 VDC/2.23 A                | Power Adapter   |
|                    | PFB303W                      | Wall Mount  |
|                    | PFA114                       | Mount Adapter   |
|                    | PFB300C+PFA150               | Pole Mount  |
|                    | PFA150                       | Pole Mount  |
|                    | PFA151                       | Corner Mount  |
|                    | PFB300C                      | Ceiling Mount   |
|                    | PFB301C                      | Ceiling Mount   |
|                    | PFB301S-E                    | Plane Mount   |
|                    | PFB303S                      | Parapet Mount   |

**Accessories**

Included:



36 VDC/2.23 A Power Adapter



PFB303W Wall Mount



PFA114 Mount Adapter

Optional:



PFB300C+PFA150 Pole Mount



PFA150 Pole Mount



PFA151 Corner Mount



PFB300C Ceiling Mount



PFB301C Ceiling Mount

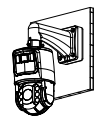
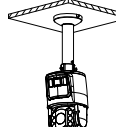
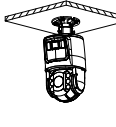
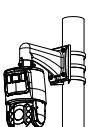
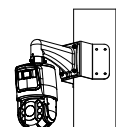
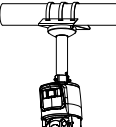
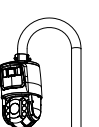
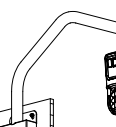


PFB301S-E Plane Mount



PFB303S Parapet Mount

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|  |  |  |
|--|--|--|
| <p>Wall Mount</p> <p>PFA114+PFB303W+PFA120</p>            | <p>Ceiling Mount</p> <p>PFA114+PFB300C</p>        | <p>Ceiling Mount</p> <p>PFA114+PFB301C</p>                  |
| <p>Pole Mount(Vertical)</p> <p>PFA114+PFB303W+PFA150</p>  | <p>Corner Mount</p> <p>PFA114+PFB303W+PFA151</p>  | <p>Pole Mount(Horizontal)</p> <p>PFA114+PFB300C+PFA150</p>  |
| <p>Plane Mount</p> <p>PFA114+PFB301S-E</p>                | <p>Parapet Mount</p> <p>PFA114+PFB303S</p>        |  |

**Dimensions (mm[inch])**

