

# DH-SDT7C424-4F-ZBZJ-APV

4MP 24x Starlight IR WizMind Network Panoramic + 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

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, and more, and uses secondary recognition during target detection to improve alarm accuracy.

### PFA Technology

PFA technology has introduced new methods of judgment that ensure the accuracy and predictability of the direction of subject distance adjustment. The result is a set of advanced focusing algorithms that ensure image clarity when zooming and that shorten focus time. This makes the camera highly advanced in its functions, substantially improving the quality of your experience.

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



### Smart Tracking

Automatically tracks moving targets, keeping them on the monitoring screen. With its flexible design, human, motor vehicle and non-motor vehicle targets can be set to be tracked. These parameters can also be combined. Targets are immediately tracked when detection rules (such as tripwire and intrusion) are triggered.

### Smart Illumination

With its advanced algorithm, the camera balances and evens out the effect of its built-in IR illuminator, matching the zoom rate to the power of the IR illuminator. Also, the IR illuminator is strong, delivering illumination up to 150 m away, allowing the camera to capture finer details of a scene in the dark.

### 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, a flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality videos without straining the network. Smart H.265+ technology outranks standard H.265 video compression, reducing bit rate and storage requirements by up to 70%.

## 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.

## 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  |
| 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         | 24×   |   |   |  |
| 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>(6,325.46 ft)                            | Panorama:<br>40.8 m<br>(133.86 ft)<br>Detail:<br>771.2 m<br>(2,530.18 ft) | Panorama:<br>20.4 m<br>(66.9 ft)<br>Detail:<br>385.6 m<br>(1,265.09 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°/s–160°/s<br>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                                     |
| Power-off Memory | Yes                                   |
| Idle Motion      | Preset; Tour; Scan; Track             |
| PTZ Protocol     | DH–SD<br>Pelco–P/D (auto recognition) |

### Intelligence

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

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

## 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; SNMP v1/v2c/v3 (MIB-2); IGMP; ARP; RTCP; RTP; PPPoE; TCP |
| Interoperability    | ONVIF (Profile S&G&T); CGI; Dahua SDK  |
| Streaming Method    | Unicast; Multicast   |
| User/Host           | 20 (total bandwidth: 64 M)   |
| Storage             | FTP; Micro SD card (128 GB)  |
| Browser             | IE 7 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  |

## Certification

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

## 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.: 45 W (illuminator + heater + PTZ working + sound and light alarm) |

## 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; voltage transient protection |

## Structure

|                      |   |
|----------------------|---|
| Casing               | Plastic + aluminum alloy  |
| Product Dimensions   | 358 mm × Φ202 mm (14.09" × 7.95")                                   |
| Packaging Dimensions | 510.0 mm × 312.0 mm × 312.0 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 | 4MP 24x Starlight White Light PTZ AI Network Camera |
| Accessories        | DC36V/2.23A                  | 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:



DC36V/2.23A  
Power Adapter



PFB303W  
Wall Mount



PFA114  
Mount Adapter

### Optional:



PFB300C+PFA150  
Pole Mount



PFA150  
Pole Mount



PFA151  
Corner Mount



PFB300C  
Ceiling Mount



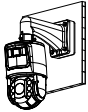
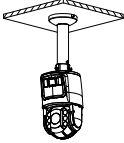
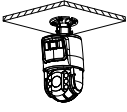
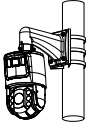
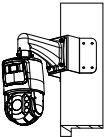
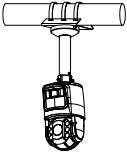
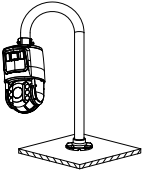
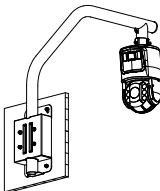
PFB301C  
Ceiling Mount



PFB301S-E  
Plane Mount



PFB303S  
Parapet Mount

|  |  |  |
|--|--|--|
| <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])

