# DH-SD22404DB-GNY

## 4MP 4x Starlight WizSense Network PTZ Camera



**WizSense**

Launched by Dahua Technology, WizSense is a series of AI products and solutions that adopt independent AI chip and deep learning algorithm. It focuses on human and vehicle with high accuracy, enabling users to fast act on defined targets. Based on Dahua's advanced technologies, WizSense provides intelligent, simple and inclusive products and solutions.

· 1/2.8" STARVIS™ CMOS.

· Powerful 4x optical zoom.

· Max.25/30fps@4M/3M.

· Max 100°/s pan speed.

· Supports face detection.

· Support PoE.

· IP66, IK10.

· SMD 3.0.

· 6000V lightning-proof.



## System Overview

With its powerful optical zoom, and accurate pan and tilt capabilities, this series of cameras provides a wide monitoring range and great detail. It displays images in 4 MP resolution at 25/30 fps. These cameras offer smooth control and high-grade protection that enable them to meet the requirements of video surveillance in small-sized scenes.

## Functions

### Starlight Technology

With advanced image processing technology and optical technology, Dahua Starlight technology can provide clear colorful video in the environment of low illuminance. It widely applies to various environments of low illuminance.

### Face Detection

Dahua Face Detection technology can detect the face in the image. With deep learning algorithm, the technology supports detecting, tracking, capturing and selecting the best face image, and then outputs face snapshot.

### Smart H.265+ & Smart H.264+

With advanced scene-adaptive rate control algorithm, Dahua smart encoding technology realizes the higher encoding efficiency than H.265 and H.264, provides high-quality video, and reduces the cost of storage and transmission.

### 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.

## Technical Specification

### Camera

| | |
|---|---|
| Image Sensor | 1/2.8" CMOS |
| Pixel | 4 MP |
| Max. Resolution | 2560 (H) × 1440 (V) |
| ROM | 128 MB |
| RAM | 512 MB |
| Electronic Shutter Speed | 1/1 s–1/30,000 s |
| Scanning System | Progressive |
| Min. Illumination | Color: 0.005 lux@F1.6<br>B/W: 0.0005 lux@F1.6 |

### Lens

| | | | | |
|---|---|---|---|---|
| Focal Length | 2.8 mm–12 mm | | | |
| Max. Aperture | F1.6–F3.0 | | | |
| Field of View | H: 90.3°–29.4°; V: 48.5°–16.6°; D: 105.7°–33.6° | | | |
| Optical Zoom | 4× | | | |
| Focus Control | Auto; semi-auto; manual | | | |
| Close Focus Distance | 1.5 m (4.92 ft) | | | |
| Iris Control | Fixed | | | |
| DORI Distance | Detect | Observe | Recognize | Identify |
| | 240 m (787.40 ft) | 94.8 m (311.02 ft) | 48 m (157.48 ft) | 24 m (78.74 ft) |

### PTZ

| | |
|---|---|
| Pan/Tilt Range | Pan: 0°–355°<br>Tilt: 0°–90° |
| Manual Control Speed | Pan: 0.1°/s–100°/s<br>Tilt: 0.1°/s–60°/s |
| Preset Speed | Pan: 100°/s; Tilt: 60°/s |
| Preset | 300 |
| Tour | 8 (up to 32 presets per tour) |
| Pattern | 5 |
| Scan | 5 |
| Idle Motion | Pattern; Preset; Scan; Tour |
| PTZ Protocol | SD Pelco-P/D(Auto recognition) |

### Intelligence

| | |
|---|---|
| IVS (Perimeter Protection) | Tripwire; intrusion; crossing fence detection; loitering detection; abandoned/missing object; fast moving; parking detection; people gathering;  vehicle/human alarm classification |
| Face Detection | Supports face detection, face track, snapshot, and face enhancement;<br>Supports face cutout: Face, one-inch photo;<br>Capturing strategies include real-time capturing and quality first. |
| SMD | Yes |

### Video

| | |
|---|---|
| Video Compression | H.264H; H.264B; Smart H.265+; H.264; H.265; MJPEG(Sub Stream); Smart H.264+ |
| Streaming Capability | 3 streams |
| Resolution | 4M (2560 × 1440); 3M (2304 × 1296@25fps); 1080P (1920 × 1080); 1.3M (1280 × 960); 720P (1280 × 720); D1(704 × 576); CIF(352 × 288); VGA(640 × 480) |
| Video Frame Rate | Main stream: 4M/3M/1080p/1.3M/720p@(1–25/30 fps)<br>Sub stream 1: D1/VGA/CIF@(1–25/30 fps)<br>Sub stream 2: 1080p/1.3M/720p@(1–25/30 fps) |
| Bit Rate Control | CBR/VBR |
| Video Bit Rate | H.264: 2816Kbps – 13056Kbps H.265: 1024Kbps – 7936Kbps |
| Day/Night | Auto (ICR)/Color/B/W |
| BLC | Yes |
| WDR | DWDR |
| HLC | Yes |
| White Balance | Auto; indoor; outdoor; ATW; 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 |
| Image Stabilization | Yes |
| Defog | Electronic defog |
| Digital Zoom | 16× |
| Image Rotation | 180° |
| S/N Ratio | ≥ 55 dB |

### Audio

| | |
|---|---|
| Audio Compression | G.711a; G.711Mu; G.726; MPEG2-Layer2; G722.1; G723; PCM |

### Network

| | |
|---|---|
| Network Port | RJ-45 (10/100 Base-T) |
| Network Protocol | TCP; FTP; RTMP; IPv6; Bonjour; IPv4; DNS; RTCP; PPPoE; NTP; RTP; 802.1x; HTTPS; SNMP; TCP/IP; DDNS; UPnP; NFS; ICMP; UDP; IGMP; IP Filter; SMB; HTTP; SSL; DHCP; SMTP; SNMPv1/v2c/v3(MIB-2); Qos; RTSP; ARP |
| Interoperability | CGI; ONVIF (Profile S&G&T) |
| Streaming Method | Unicast/Multicast |
| User/Host | 20 (total bandwidth: 64 M) |
| Storage | DMSS; FTP; Micro SD card (512 GB); NAS |
| Browser | IE 9 and later versions<br>Chrome 41 and later versions<br>Firefox 50 and later versions<br>iOS 10 and later versions. |
| Management Software | DSS; DMSS |

| Mobile Client | iOS; Android |
|---|---|

## Certification

| Certifications | CE: CE-LVD: IEC 62368-1/ CE-EMC/EN 55032/EN IEC 61000-3-2/EN55024/EN55035/EN50130-4<br>FCC: 47 CFR FCC Part15, Subpart B, ANSI C63.4:2014 |
|---|---|

## Port

| Alarm Linkage | Capture; preset; tour; pattern; recordings; alarm digital input; audio; send 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 | 12 VDC, 1 A ± 10%<br>POE (802.3af) |
|---|---|
| Power Consumption | Basic: 2.3 W<br>Max.: 6.1 W |

## Environment

| Operating Temperature | −30 °C to +60 °C (−22 °F to +140 °F) |
|---|---|
| Operating Humidity | ≤ 95% |
| Storage Temperature | −30 °C to +60 °C (−22 °F to +140 °F) |
| Storage Humidity | ≤ 95% |
| Protection | IP66, IK10 |

## Structure

| Product Dimensions | 89 mm × Φ122 mm (3.50" × Φ4.80") |
|---|---|
| Net Weight | 0.5 kg (1.10 lb) |
| Gross Weight | 0.7 kg (1.54 lb) |

## Ordering Information

| Type | Model | Description |
|---|---|---|
| 4MP PTZ Camera | DH-SD22404DB-GNY | 4MP 4x Starlight WizSense Network PTZ Camera |
| | SD22404DB-GNY | 4MP 4x Starlight WizSense Network PTZ Camera |
| Accessories (Optional) | PFA137 | Junction Box |
| | PFB203W | Wall Mount Bracket |
| | PFA152-E | Pole Mount Bracket |
| | PFA106 | Mount Adapter |
| | PFB200C | In ceiling Mount Bracket |
| | PFB220C | Ceiling Mount Bracket |
| | PFM321D | 12 VDC 1A Power Adapter |
| | PFM900-E | Integrated Mount Tester |
| | TF-P100 | MicroSD Memory Card |

## Accessories

Optional:

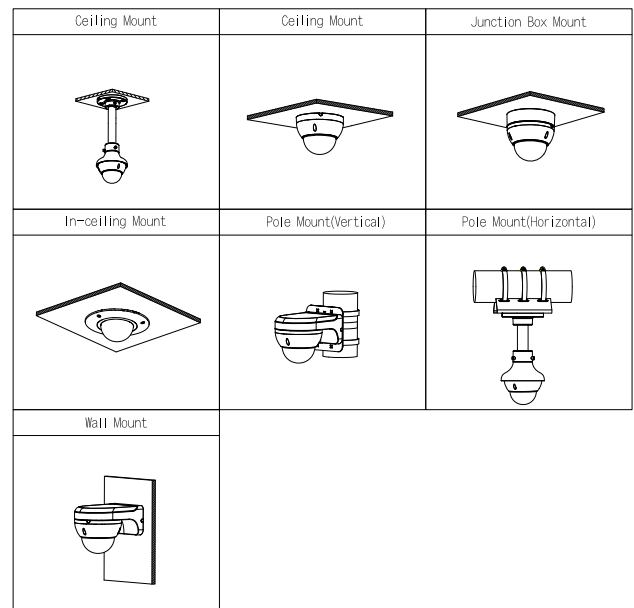| | | |
|---|---|---|
| PFA137<br>Junction Box | PFB203W<br>Wall Mount Bracket | PFA152-E<br>Pole Mount Bracket |
| PFA106<br>Mount Adapter | PFB200C<br>In-ceiling Mount Bracket | PFB220C<br>Ceiling Mount Bracket |
| PFM321D<br>12 VDC 1A Power Adapter | PFM900-E<br>Integrated Mount Tester | TF-P100<br>MicroSD Memory Card |

| Ceiling Mount | Ceiling Mount | Junction Box Mount |
|---|---|---|
| In-ceiling Mount | Pole Mount(Vertical) | Pole Mount(Horizontal) |
| Wall Mount | | |

## Dimensions (mm[inch])