

DH-SD3D216NB-GNY

2MP 16x IR 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.

Series Overview

With its powerful optical zoom and accurate pan, tilt, and zoom functions, the SD3D series camera provides an all-in-one solution for long distance video surveillance in outdoor settings. Their small and compact design make them easy to install. They are also compatible with IR illuminators, making them great for use in dark and low-light conditions.

Functions

Starlight Technology

Dahua Starlight technology utilizes advanced image processing and optical technologies to deliver clear videos, even in low-lighting environments. This technology is extensively employed across a range of settings that have inadequate lighting.

SMD 3.0

Empowered by deep-learning algorithms, Dahua SMD filters out motion detection alarms triggered by targets that are not a concern. It quickly recognizes humans and vehicles, triggering alarms when an intrusion occurs.

IVS

With advanced video algorithm, Dahua IVS technology supports intelligent functions, such as tripwire and intrusion.

- 1/2.8" 2Megapixel CMOS
- 16x optical zoom
- Starlight technology
- Max. 25/30 fps@1080P
- IR distance up to 80 m
- IVS(Human/Vehicle Detection)
- SMD 3.0
- IP66
- Smart Light +
- Tour



Protection (IP66, TVS 6000 V)

IP66, TVS 6000 V lightning proof, surge protection, and voltage transient protection.

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.

Smart Light+

Equipped with advanced LEDs and beam processing technology, the camera effectively reduces interference of stray light, ensuring concentrated illumination within the lens's field of view. This allows the camera to easily produce clear images that reveal the fine details of targets even in low light conditions.

Wide Dynamic Range

The camera produces vivid images, even in high-contrast lighting conditions, by using industry-leading wide dynamic range (WDR) technology. For scenes that quickly alternate between bright and low lighting, WDR adjusts to fully capture both the bright and dark areas of a scene, producing superior quality videos.

Technical Specification

Camera

| | |
|----------------------------|---|
| Image Sensor | 1/2.8" CMOS |
| Pixel | 2 MP |
| Max. Resolution | 1920 (H) × 1080 (V) |
| ROM | 128 MB |
| RAM | 128 MB |
| Electronic Shutter Speed | 1 s–1/30,000 s |
| Scanning System | Progressive |
| Min. Illumination | 0.005 lux@F1.6 (Color, 30 IRE); 0.0005 lux@F1.6 (B/W, 30 IRE); 0 lux (Illuminator on) |
| Illumination Distance | 80 m (262.47 ft) (IR) |
| Illuminator On/Off Control | Zoom Prio; Manual; Auto; Off |
| Illuminator Number | 3 (IR) |

Lens

| | |
|----------------------|--|
| Focal Length | 5.0 mm–80 mm |
| Max. Aperture | F1.6–F3.5 |
| Field of View | H: 54.4°–4.1° ; V: 31.4°–2.3°; D: 61.3°–4.7° |
| Optical Zoom | 16× |
| Focus Control | Auto; Semi-auto; Manual |
| Close Focus Distance | 0.1 m–1 m (0.33 ft–3.28 ft) |
| Iris Control | Fixed |

| | Lens | Detect | Observe | Recognize | Identify |
|---------------|---|----------------------------|--------------------------|-------------------------|-------------------------|
| | 5.0 mm–80 mm | 1,103.4 m (3,620.0 ft) | 435.9 m (1,430.1 ft) | 220.7 m (724.08 ft) | 110.3 m (361.88 ft) |
| DORI Distance | *DORI (Detect, Observe, Recognize, Identify) is a standard system (EN-62676-4) for defining the ability of a person viewing the video to distinguish persons or objects within a covered area. The numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and commissioning manual/project design tool. | | | | |

PTZ

| | |
|----------------------|---|
| Pan/Tilt Range | Pan: 0° to 360° endless; Tilt: –15° to +90°, auto flip 180° |
| Manual Control Speed | Pan: 0.1°–40°/s; Tilt: 0.1°–40°/s |
| Preset Speed | Pan: 0.1°–40°/s; Tilt: 0.1°–40°/s |
| Preset | 300 |
| Tour | 8 (up to 32 presets per tour) |
| Power-off Memory | Yes |
| Idle Motion | Preset |
| PTZ Protocol | DH-SD |

Smart Event

| | |
|----------------|---------------------|
| IVS | Tripwire; intrusion |
| Intelligence | |
| Smart Tracking | Auto Tracking 1.0 |
| SMD | SMD 3.0 |

Video

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|--------------------------|--|
| Video Compression | Smart H.265+;H.265;Smart H.264+;H.264B;H.264M;H.264H;MJPEG(Sub Stream 1) |
| Streaming Capability | 2 streams |
| Resolution | 1080p (1920 × 1080); 1.3MP (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240) |
| Video Frame Rate | Main stream: 1080p/1.3M/720p @(1–25/30 fps) Sub stream: D1/VGA/CIF@ (1–25/30 fps) |
| Bit Rate Control | CBR/VBR |
| Video Bit Rate | H.264: 64 kbps–8,192 kbps H.265: 25 kbps–6,400 kbps |
| Day/Night | Auto (ICR); Color/B/W |
| BLC | Yes |
| WDR | 120 dB |
| 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 |
| Defog | Electronic Image Stabilization (EIS) |
| Digital Zoom | 5× |
| Image Rotation | 180° |
| S/N Ratio | ≥55 dB |

Network

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|---------------------|--|
| Network Port | RJ-45 (10/100 Base-T) |
| Network Protocol | HTTP;HTTPS;TCP/IP;IPv4;RTSP;UDP;SMTP;NTP;DHCP;DNS;DDNS;IPv6;SSL;FTP;ARP;RTCP;RTP;IP Filter;RTMP |
| Interoperability | CGI;SDK;ONVIF (Profile S & Profile T) |
| Streaming Method | Unicast/Multicast |
| User/Host | 20 (total bandwidth: 64 M) |
| Storage | Micro SD card (256 GB); FTP |
| Browser | IE 7 and later versions; All Chrome versions; All Firefox versions; All Safari versions |
| Management Software | DSS Pro |
| Mobile Client | iOS;Android |

Certification

| | |
|----------------|-------------------------------|
| Certifications | CE: EN55032/EN55024/EN50130-4 |
|----------------|-------------------------------|

Port

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|---------------|---|
| Alarm Linkage | Capture; recording; send email |
| Alarm Event | Motion/tampering detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection |

Power

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|-------------------|---|
| Power Supply | 12 VDC, 2 A \pm 10% PoE+ (802.3at) |
| Power Consumption | Basic: 8 W Max. (Basic power consumption + WDR + intelligence on + IR on + PTZ operation + Heater): 18 W (12 VDC) |
| Power Adapter | Optional |

Environment

| | |
|-----------------------|---|
| Operating Temperature | -30 °C to +60 °C (-22 °F to +140 °F) |
| Operating Humidity | \leq 95% |
| Protection | IP66;TVS 6000 V lightning proof; surge protection; voltage transient protection |

Structure

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|--------------------|---|
| Product Dimensions | 240 mm \times Φ 151.5 mm (9.45" \times Φ 5.94") |
| Net Weight | 1.5 kg (3.31 lb) |
| Gross Weight | 2.5 kg (5.51 lb) |

Filter

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|---------|---|
| Remarks | The precision of the presets for PTZ cameras might vary depending on different series. For scenes with high requirements on the precision, contact your local sales representative for assistance with selecting the model. |
|---------|---|

Ordering Information

| Type | Model | Description |
|--------------------|------------------|--|
| Network PTZ Camera | DH-SD3D216NB-GNY | 2MP 16x IR WizSense Network PTZ Camera |
| Accessories | PFB5310W | Wall Mount Bracket |
| | DH-PFB300C | Ceiling Mount Bracket |
| | PFA7711 | Mount Adapter |
| | DH-PFA150 | Pole Mount Bracket |
| | DH-PFA156 | Pole Mount Bracket |
| | DH-PFA121 | Water-proof Junction Box |
| | G3416GW | G3/4" Water Joint |

Accessories

Included:



PFB5310W
Wall Mount Bracket

Optional:



DH-PFA121
Water-proof Junction Box



DH-PFA150
Pole Mount Bracket



DH-PFA156
Pole Mount Bracket



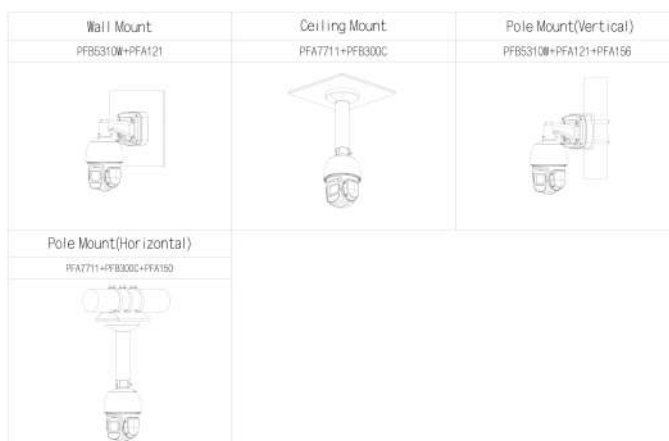
DH-PFB300C
Ceiling Mount Bracket



G3416GW
G3/4" Water Joint



PFA7711
Mount Adapter



Dimensions (mm[inch])

