

DH-SD3D216NB-GNY

2MP 16x IR WizSense Network PTZ Camera



Wiz Sense

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 (3,620.08 ft)	435.9 m (1,430.12 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	
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	
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

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

Power Supply 12 VDC, 2 A ± 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 ≤95%

Protection IP66;TVS 6000 V lightning proof; surge protection; voltage transient protection

Structure

Product Dimensions 240 mm × Ø151.5 mm (9.45" × Ø5.94")

Net Weight 1.5 kg (3.31 lb)

Gross Weight 2.5 kg (5.51 lb)

Filter

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.

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

Wall Mount	Ceiling Mount	Pole Mount(Vertical)
PFB5310W+PFA121	PFA7711+PFB300C	PFB5310W+PFA121+PFA156



Pole Mount(Horizontal)



PFA7711+PFB300C+PFA150


Ordering Information

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

Dimensions (mm[inch])

