DH-SD3D416NB-GNY

4M 16x IR WizSense Network PTZ Camera



- 1/2.8" 4Megapixel CMOS
- 16x optical zoom Starlight technology
- Max. 25/30 fps@4MP
- IR distance up to 80 m
- IVS(Human/Vehicle Detection)
- SMD 3.0
- IP66
- Smart Light +
- Preset Patrol



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.

Protection (IP66, TVS 6000 V)

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

IVS

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

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	4 MP
Max. Resolution	2560 (H) × 1440 (V)
ROM	128 MB
RAM	128 MB
Electronic Shutter Speed	1 s–1/30,000 s
Scanning System	Progressive
Min. Illumination	Color: 0.005 lux@F1.6; Black and white: 0.0005 lux@F1.6; 0 lux (IR light 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: 50.56°–3.84°; V: 29.48°–2.16°; D: 57.69°–4.39°
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	Auto; Manual; Iris prio

DORI Distance

Lens	Detect	Observe	Recognize	Identify
5.0 mm–80 mm	1,600.00 m (5,249.34 ft)	632.00 m (2,073.49 ft)	320.00 m (1,049.87 ft)	160.00 m (524.93 ft)

*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)
Pattern	5
Power-off Memory	Yes
Idle Motion	Preset
PTZ Protocol	DH-SD

Smart Event

IVS	Tripwire; intrusion

Intelligence

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	4M (2560 × 1440); 3M (2304 × 1296); 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)
Video Frame Rate	Main stream: 4M/3M/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	H264: 96–8,192 kbps H265: 38–8,192 kpbs
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