DH-SD29404DB-GNY-W

4MP 4x IR WizSense Network PTZ Camera



- 1/2.8" 4Megapixel CMOS.
- Max. 25/30fps@4MP.
- IR distance up to 50 m.
- 4x optical zoom.
- WDR.
- SMD 3.0.
- Built-in Mic.
- Wi-Fi



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.

System Overview

Dahua WizSense PTZ camera adopts advanced deep learning algorithms to support primeter protection with high accuracy. The camera is equipped with smooth control, high quality image, and good protection, meeting compact size demands of video surveillance applications.

Functions

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.

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.

Starlight Technology

For challenging low-light applications, Dahua's Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing color details in low light down to 0.005 lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

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%.

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	1/1s–1/30,000s
Scanning System	Progressive
Min. Illumination	Color: 0.005 lux@F1.6 B/W: 0.0005 lux@F1.6 0 lux (IR light on)
Illumination Distance	50 m (164.04 ft) (IR)
Illuminator On/Off Control	Zoom Prio; Manual; Auto; Off
Illuminator Number	2 (IR)

Lens

Focal Length	2.8 mm–12 mm
Max. Aperture	F1.6–F3.0
Field of View	H: 94.9°–30.1°; V: 51°–17.1°; D: 112.3°–34.6°
Optical Zoom	4×
Focus Control	Auto; semi-auto; manual
Close Focus Distance	1.5 m (4.92 ft)
Iris Control	Fixed
DORI Distance	Detect: 171 m (561.02 ft); Observe: 67 m (219.82 ft); Recognize: 34 m (111.55 ft); Identify: 17 m (55.77 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° not endless Tilt: –0° to +90°
Manual Control Speed	Pan: 0.1°/s–100°/s 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
Power-off Memory	Yes
Idle Motion	Pattern; Preset; Scan; Tour
PTZ Protocol	DH-SD4
PTZ Locked	Yes

Intelligence

IVS (Perimeter Protection)	Tripwire; intrusion; crossing fence detection; loitering detection; abandoned/missing object; fast moving; parking detection; people gathering; human alarm classification
Face Detection	Supports face detection,snapshot, and face enhancement; Supports face cutout: Face, one-inch photo; 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); 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 1: D1/VGA/CIF@(1-25/30 fps) Sub stream 2: 720p@(1-25/30 fps)
Bit Rate Control	CBR/VBR
Video Bit Rate	H264: 24 Kbps–13056 Kbps H265: 9 Kbps–7936 Kbps
Day/Night	ICR: Auto; color; B/W Electronic: Auto; color; B/W
BLC	Yes
WDR	120 dB
HLC	Yes
White Balance	Auto; indoor; outdoor; tracking; manual; sodium lamp; natural light; street lamp
Gain Control	Auto; manual; gain prio
Noise Reduction	2D NR; 3D NR
Motion Detection	Yes
Region of Interest (RoI)	Yes
Image Stabilization	Electronic
Defog	Electronic
Digital Zoom	16 ×
Image Rotation	180°
S/N Ratio	≥ 55 dB
Privacy Mask	Up to 24 areas can be set, with up to 8 areas in the same view; 8 colors available

Audio

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

Network

Network Port	RJ-45 (10/100 Base-T)

Wi-Fi	Yes
Wi-Fi Standard	IEEE802.11b; IEEE802.11g; IEEE802.11n
Wi-Fi Frequency Range	2.4 GHz
Wi-Fi Transmission Rate	75 Mbps
Max Transmission Power	≤20 dBm@2400–2483.5 MHz
Network Protocol	FTP; RTMP; IPv6; Bonjour; IPv4; DNS; RTCP; PPPoE; NTP; RTP; 802.1x; HTTPS; SNMP; TCP/IP; DDNS; UPnP; NFS; ICMP; UDP; IGMP; SMB; HTTP; SSL; DHCP; SMTP; Qos; RTSP; ARP
Interoperability	CGI; SDK; ONVIF (Profile S&G&T); P2P
Streaming Method	Unicast/Multicast
User/Host	20 (total bandwidth: 64 M)
Storage	Micro SD card (512 GB); FTP/SFTP; NAS
Browser	IE 9 and later versions Chrome 41 and later versions Firefox 50 and later versions Safari 10 and later versions
Management Software	DMSS; DSS Pro
Mobile Client	iOS; Android

Certifications

Certifications	CE: EN55032/EN 50130-4/EN 55035/EN61000-3-2/EN61000-3-3 CE-RED: EN300328/EN62311/EN301489-17

Port

Audio Input	1 channel (LINE IN, bare wire,built-in mic (mutually exclusive))
Audio Output	1 channel (LINE OUT,bare wire)
Alarm Input	2 (on-off value input: 0–5 VDC)
Alarm Output	1
Alarm Linkage	Capture; recoding; send email; preset; tour; pattern; alarm digital output; audio
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, 2A ± 10% (optional)
Power Consumption	Basic: 5 W Max: 10 W (illuminator+PTZ)

Environment

Operating Temperature	–30 °C to +50 °C (–22 °F to +122 °F)
Operating Humidity	≤ 95%
Protection	6000V lightning proof; surge protection; voltage transient protection

Structure

Product Dimensions	117.4 mm × Φ132.1 mm (4.62" × Φ5.20")
Net Weight	0.713 kg (1.57 lb)
Gross Weight	1.0 kg (2.20 lb)

* 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
4MP WizSense PTZ Camera	DH-SD29404DB-GNY-W	4MP 4x IR WizSense Network PTZ Camera
	SD29404DB-GNY-W	4MP 4x IR WizSense Network PTZ Camera
Accessories (Optional)	DC 12 V/2A	Power Adapter
	TF-P100	MicroSD Memory Card
	PFA103 + PFB300S	Mount Adapter
	PFB302S + PFB300S	Wall Mount Bracket
	PFB300C	Ceiling Mount Bracket
	PFA150	Pole Mount Bracket
	PFA151	Corner Mount Bracket

Accessories

Optional:



DC 12 V/2A
Power Adapter



TF-P100
MicroSD
Memory Card



PFA103 + PFB300S
Mount Adapter



PFB302S + PFB300S
Wall Mount Bracket



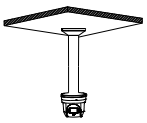
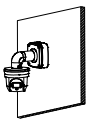
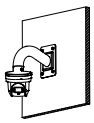
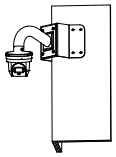
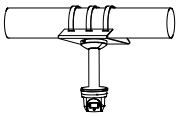
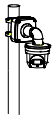
PFB300C
Ceiling Mount Bracket



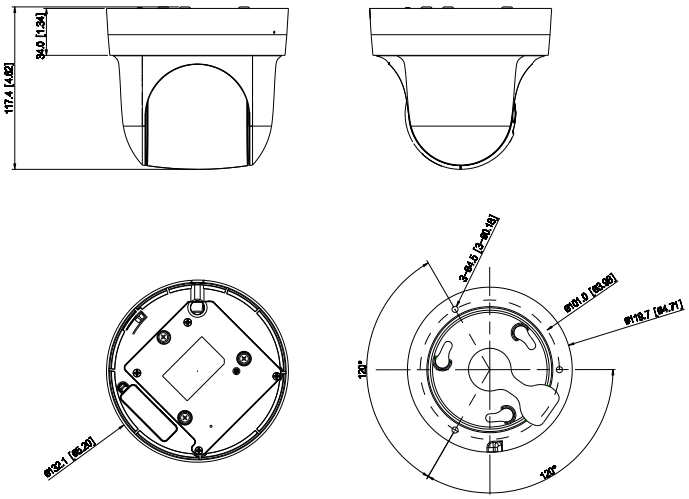
PFA150
Pole Mount Bracket



PFA151
Corner Mount
Bracket

Ceiling Mount	Wall Mount	Wall Mount
PFA103+PFB300C	PFA103+PFB302S	PFA103+PFB300S
		
Corner Mount	**Pole Mount (Horizontal)**	**Pole Mount (Vertical)**
PFA103+PFB300S+PFA151	PFA103+PFB300C+PFA150	PFA103+PFB302S+PFA152-E
		
Ceiling Mount		
/		
		

Dimensions (mm[inch])



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