

# DH-SD22204DB-GNY

2MP 4x Starlight 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.

- 1/2.8" CMOS.
- Powerful 4x optical zoom.
- Max. 25/30fps@1080P.
- 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 2 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	2 MP
Max. Resolution	1920 (H) × 1080 (V)
ROM	128 MB
RAM	256 MB
Electronic Shutter Speed	1/1 s–1/30,000 s
Scanning System	Progressive
Min. Illumination	Color: 0.005 lux@F1.6 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: 99.1°–31.9°; V: 53.4°–18.0°; D: 117.7°–36.6°			
Optical Zoom	4x			
Focus Control	Auto; semi-auto; manual			
Close Focus Distance	1.5 m (4.92 ft)			
Iris Control	Fixed			
DORI Distance	Detect	Observe	Recognize	Identify
	165.5 m (542.98 ft)	65.4 m (214.57 ft)	33.1 m (108.60 ft)	16.6 m (54.46 ft)

**PTZ**

Pan/Tilt Range	Pan: 0° to 355° 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
Idle Motion	Pattern; Preset; 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; 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	1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576); CIF (352 × 288); VGA (640 × 480)
Video Frame Rate	Main stream: 1080p/1.3M/720p@(1–25/30 fps) Sub stream 1: D1/VGA/CIF@(1–25/30 fps) Sub stream 2: 1080p/1.3M/720p@(1–25/30 fps)
Bit Rate Control	CBR/VBR
Video Bit Rate	H.264: 2048 kbps–8192 kbps H.265: 768 kbps–6400 kbps
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	16x
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; 802.1x; SSL; Qos; FTP; UPnP; ICMP; SNMP; IGMP; ARP; RTCP; RTP; PPPoE; RTMP; Bonjour; SAMBA; NFS
Interoperability	ONVIF(Profile S&G&T); P2P; CGI; SDK
Streaming Method	Unicast/Multicast
User/Host	20 (total bandwidth: 64 M)
Storage	FTP; Micro SD card (512 GB); NAS
Browser	IE 9 and later versions Chrome 41 and later versions Firefox 50 and later versions 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 FCC: 47 CFR FCC Part15, Subpart B, ANSI C63.4:2014
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**Port**

<b>Alarm Linkage</b>	Capture; preset; tour; pattern; recordings on SD card; alarm digital input; send email
<b>Alarm Event</b>	Motion/Tampering detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection; power exception detection

**Power**

<b>Power Supply</b>	12 VDC, 1 A ± 10% POE (802.3af)
<b>Power Consumption</b>	Basic: 2.3 W Max.: 6.1 W

**Environment**

<b>Operating Temperature</b>	-30 °C to +60 °C (-22 °F to +140 °F)
<b>Operating Humidity</b>	≤ 95%
<b>Storage Temperature</b>	-30 °C to +60 °C (-22 °F to +140 °F)
<b>Storage Humidity</b>	≤ 95%
<b>Protection</b>	IP66, IK10

**Structure**

<b>Product Dimensions</b>	89 mm × Φ122 mm (3.50" × Φ4.80")
<b>Net Weight</b>	0.5 kg (1.10 lb)
<b>Gross Weight</b>	0.7 kg (1.54 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
<b>2MP PTZ Camera</b>	DH-SD22204DB-GNY	2MP 4x Starlight WizSense Network PTZ Camera
	SD22204DB-GNY	2MP 4x Starlight WizSense Network PTZ Camera
<b>Accessories (Optional)</b>	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  
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

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

**Dimensions (mm[inch])**

