



# DH-SD1A404XB-GNR

4M 4x Starlight IR WizSense Network PTZ Camera





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 CNN 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**

### **People Counting**

People Counting function uses advanced image processing technology to capture depth information from within images. The camera pairs this information with deep learning algorithms to analyze and detect human bodies and track target objects in real time. The camera provides statistics for separate individuals' entrance and exit with up to 95% counting accuracy.

### **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.

### **Environmental**

Dahua cameras operate in extreme temperature environments, rated for use in temperatures from-30 °C to +60 °C (-22 °F to +140 °F) with 95% humidity. Subjected to rigorous dust and water immersion tests and certified to the IP66 Ingress Protection rating makes it suitable for demanding outdoor applications.

- · 1/2.8" 4Megapixel CMOS
- · Starlight technology
- · Max. 25/30fps@4MP
- · 4x optical zoom
- · Face Detection, People Counting, Perimeter Protection
- · IR distance up to 15m
- · SMD Plus
- · PoE
- · IP66, IK08

















### **Protection**

The camera allows for  $\pm 15\%$  input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 6KV lightning rating provides effective protection for both the camera and its structure against lightning.

### Wide Dynamic Range

The camera achieves vivid images, even in the most intense contrast lighting conditions, using industry-leading wide dynamic range (WDR) technology. For applications with both bright and low lighting conditions that change quickly, True WDR optimizes both the bright and dark areas of a scene at the same time to provide usable video.

### H.265+

H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.

Technical Specification				Artificial Intelligence		
Camera Image Sensor	1/2 9" CTADVICTM CNAICS				People Counting	Count people entering and exiting the area (crossing people counting); count people staying in the area (inarea people counting); display and export reports by
-	1/2.8" STARVIS™ CMOS					day, week and month.
Pixel  Max. Resolution	4MP 2560 (H) × 1440 (V)				Perimeter Protection	Tripwire and intrusion. Support alarm triggering by target types (human and vehicle). Support filtering false alarms caused by animals, rustling leaves, bright lights, etc.
ROM	4GB				SMD Plus	Support
RAM	1GB				Face Detection	Support
Electronic Shutter Speed	1/1 s-1/30,000 s				Video	
Scanning System	Progressive					H.265; H.264BaselineProfile; H.264MainProfile;
Min. Illumination	Color: 0.005Lux@F1.8 B/W: 0.0005Lux@F1.8				Compression  Streaming Capability	H.264HighProfile; MJPEG (Sub Stream); H.265+; H.264+3 streams
Illumination Distance	OLux (IR light on)  15 m (49.21 ft)				Resolution	4M (2560 x 1440); 3M (2048 x 1536); 1080P (1920 x 1080); 1.3M (1280 x 960); 720P (1280 x 720); D1 (704 x 576/704 x 480); CIF (352 x 288/352 x 240)
Illuminator On/Off Control	Zoom Prio/N	//anual/SmartI	R			Main stream: 4M/3M (1–25/30fps), 1080P/1.3M/720P
Illuminator Number	3				Frame Rate	(1–25/30fps) Sub stream 1: D1/CIF (1–25/30fps) Sub stream 2: 720P (1–25/30fps), D1/CIF (1–25/30fps)
Lens					Bit Rate Control	Variable Bit Rate/Constant Bit Rate
Focal Length	2.8 mm–12 mm				Bit Rate	H.264/H.265/MJPEG: 3 kbps–20480 kbps
Max. Aperture	F1.8-F2.7				Day/Night	Auto (ICR)/Color/B/W
Field of View	H: 31.6°-96.9° V: 17.8°-51.4° D: 36.4°-116.2°				BLC	Support
Optical Zoom	4x				WDR	120 dB
Focus Control	Auto/Semi-Auto/Manual				HLC	Support
Close Focus Distance	0.2 m-0.5 m (0.66 ft-1.64 ft)				White Balance	Auto/Indoor/Outdoor/Track/Manual/Sodium lamp/ Natural light/Street lamp
Iris Control	Auto				Gain Control	Auto/Manual
DON DO	Detect	Observe	Recognize	Identify	Noise Reduction	2D/3D
	240 m (787.40 ft)	95 m (311.02 ft)	48 m (157.48 ft)	24 m (78.74 ft)	Motion Detection	Support
PTZ					Region of Interest (RoI)	Support
Pan/Tilt Range		Pan: 0°–355°			Electronic Image Stabilization	Support
		Tilt: 5°–90° Pan: 0.1°/s–70°/s			Electronic Defog	Support
Manual Control Speed	Tilt: 0.1°/s–30°/s				Digital Zoom	16x
Preset Speed	Pan: 80°/s Tilt: 40°/s				Flip	0°/180°
Presets	300				Privacy Masking	Up to 24 areas, and up to 8 areas in the same view
Tour	8 (up to 32 presets per tour)				Audio	
Speed Adjustment	Support				Compression	G.711a; G.711Mu; G.726; MPEG2-Layer2; G.722.1; G.729; G.723
Power-off Memory	Support				Network	
Idle Motion	Preset/Tour				Ethernet	RJ-45 (10/100Base-T)
General Intelligence  Motion detection, Video tampering, Scene changing,				Protocol	RTMP; IPv4; IPv6; HTTP; HTTPS; 802.1x; Qos; FTP; SMTP; UPnP; SMMPv1/v2c/v3(MIB-2); DNS; DDNS; NTP; RTSP; RTP; TCP; UDP; IGMP; ICMP; DHCP; PPPoE; ARP; RTCP	
66		lisconnection, IP address conflict, Illegal orage anomaly				
Event migger	Access, Stor	age anomaly			Interoperability	ONVIF Profile S&G&T CGI

# Wiz Sense | DH-SD1A404XB-GNR

User/Host	20
Storage	FTP; Micro SD card (256G); P2P
Browser	IE; Chrome; Firefox; Safari (no version restriction)
Management Software	DMSS; DSS Pro
Mobile Phone	iOS/Android

### Certification

	CE: EN55032/EN55024/EN50130-4
Certifications	FCC: Part15 subpartB, ANSI C63.4-2014
	UL62368-1+CAN/CSA C22.2,No. 62368-1

### Port

Audio I/O 1(I	ine in; bare wire or built in Mic)/1
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### Power

Power Supply	DC12V/1.5A±15% PoE (802.3af)
Power Consumption	3W 8.5W (IR on)

### Environment

Operating Temperature	−30°C to +60°C (−22°F to 140°F)
Operating Humidity	≤ 95%
Protection	IK08; IP66; TVS 6000V lightning proof; surge protection

### Structure

Dimensions	Φ128.0 mm × 65.4 mm (5.04" × 2.57")
Net Weight	0.485 kg (1.06 lb)
Gross Weight	0.7 kg (1.54 lb)

<sup>\*</sup>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

### Optional:



PFA107 Mount Adapter



PFB305W Wall Mount Bracket



DH-PFA120 Junction Box



DH-PFA140 Power Box



PFB220C Ceiling Mount Bracket



DH-PFA150 Pole Mount Bracket



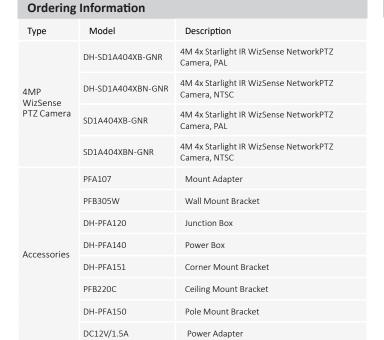
DH-PFA151 Corner Mount Bracket

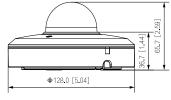


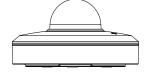
DC12/1.5A Power Adapter

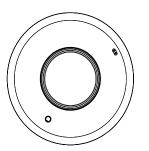
Wall Mount	Ceiling Mount	Ceiling Mount
PFB305W+PFA107+PFA120	PFA107+PFB220C	\
Pole Mount(Vertical)	Corner Mount	Pole Mount(Horizontal)
PFA107+PFB305W+PFA150	PFA107+PFB305W+PFA151	PFA107+PFB220C+PFA150

# Dimensions (mm[inch])









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