

# DH-SD5A445GB-HNR

4MP 45x Starlight IR 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

Unique and elegant, the black semicircular sphere discreetly monitors from a distance without drawing undue attention to itself. It has a powerful optical zoom, and accurate pan, tilt and zoom capabilities, providing an all-in-one solution for long distance video surveillance of outdoor scenes. Together with infrared illumination and Starlight Technology, the camera is a great solution for dark, low light conditions. The series combines a day and night mechanical IR cut filter to produce high quality images in variable lighting conditions during the day, and True WDR for locations with direct sunlight and glare.

#### 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.

#### **Perimeter Protection**

Automatically filters out false alarms caused by animals, rustling leaves, bright lights, and more, and uses secondary recognition during target detection to improve alarm accuracy.

#### **Face Detection**

Supports 6 attributes and 8 expressions: Gender, age, glasses, face mask, beard and expressions (anger, sadness, disgust, fear, surprise, calm, happiness, and confusion). It also supports face cutout settings: Face, and single inch photo. Three snapshot methods are also featured: Real-time snapshot, priority snapshot, and quality priority.

- 1/2.8" 4Megapixel STARVIS™ CMOS.
- 45x optical zoom.
- Starlight technology.
- Max. 25/30fps@4M.
- IR distance up to 150 m.
- Auto-tracking 3.0.
- Perimeter protection.
- Face detection.
- SMD 4.0.

Wiz Sense

• IP67, IK10.



#### Auto-tracking

This feature controls the pan/tilt/zoom actions of the camera to automatically track an object in motion and to keep it in the scene. The tracking action can be triggered manually or automatically by defined rules. Once a rule is triggered, the camera can zoom in and track the defined target automatically.

#### Protection (IP67, TVS 6000 V)

IP67, TVS 6000 V lightning proof, surge protection, and voltage transient protection.

#### SMD 4.0

Dahua Smart Motion Detection technology works with intelligent algorithms to classify targets that trigger motion detection alarms. It filters out objects that are not targets, such as small and large animals, to avoid triggering false alarms. With an AI NVR, Quick Pick technology becomes available, allowing you to easily search for and pick out human and vehicle targets from SMD event videos, prioritizing the highest matches.

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Technical Specification		IVS (Perimeter Protection)	Tripwire; intrusion; climbing fences; loitering detection; abandoned/missing object; fast moving;
Camera		,	parking detection; people gathering; vehicle/humar alarm classification; linkage tracking
Image Sensor Pixel Max. Resolution	1/2.8" CMOS 4 MP 2560 (H) × 1440 (V)		Supports face detection, optimization, tracking, capturing pictures, uploading high-quality face snapshots, and face enhancement; Supports attributes extraction. 6 attributes and 8 expressions Gender, age, glasses, expressions (angry, sad, hate, scary, surprise, calm, happy and confused), mask, mustache; Supports face cutout: Face, one-inch photo. Capturing strategies include real-time capturing, optimization, and quality first.
ROM	4 GB	Face Detection	
RAM	1 GB		
Electronic Shutter Speed	1/1 s-1/30,000 s		
Scanning System	Progressive	Decade Counting	Supports tripwire for people counting at entrances and exits, counting the number of people staying in an area and queuing in an area, and displaying and exporting reports based on the day, week and month.
Min. Illumination	Color: 0.005 lux@F1.6 B/W: 0.0005 lux@F1.6 0 lux (IR light on)	People Counting	
Illumination Distance	150 m (492.13 ft)	Auto Tracking	Yes
Illuminator On/Off Control	Zoom Prio; Manual; Smart IR; Off	SMD	SMD 4.0
Illuminator Number	4 (IR)	Acupick	Uses deep learning algorithms and works with back end devices to accurately match targets, such as people and motor vehicles, and search through live and recorded videos to quickly locate targets.
Lens Focal Length	3.95 mm–177.75 mm	Auto Patrol	It triggers the IVS rule when a target is detected an makes the camera link with the PTZ to rotate to the position of the target and patrol based on its press
Max. Aperture	F1.6-F4.95	Video	F
Field of View	H: 70.3°–1.8°; V: 37°–1°; D: 69.3°–2°	Video Compression	H.264H; H.264B; Smart H.265+; H.264; H.265; MJPEG(Sub Stream); Smart H.264+
Optical Zoom	45×	Streaming Capability	3 streams
Focus Control	Auto; semi-auto; manual		4M (2560 × 1440); 3M (2048 × 1536); 3M (2304 ×
Close Focus Distance	0.1 m–1 m (0.33 ft–3.28 ft)	Resolution	1296); 1080p (1920 × 1080); 720p (1280 × 720); D1 (704 × 576); VGA (640 × 480); CIF (352 × 288)
Iris Control DORI Distance	Auto; manual Detect Observe Recognize Identify 3,555 m (11,663.39 (1404.2 m 711 m 355.5 m	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: 1080p/1.3M/720p (1–25/30 fps)
	ft) (4,606.96 ft) (2,332.68 ft) (1,166.34 ft)	Bit Rate Control	CBR/VBR
PTZ	Pan: 0° to 360° endless	Video Bit Rate	H.264: 96 kbps–14848 kbps H.265: 38 kbps–8960 kbps
Pan/Tilt Range	Tilt: –15° to +90°, auto flip 180°	Day/Night	Auto (ICR)/Color/B/W
Manual Control Speed	Pan: 0.1°/s–300°/s Tilt: 0.1°/s–200°/s	BLC	Yes
Preset Speed	Pan: 400°/s; Tilt: 300°/s	WDR	120 dB
Preset	300	HLC	Yes
Tour	8 (up to 32 presets per tour)	White Balance	Auto; indoor; outdoor; ATW; manual; sodium lamp natural light; street lamp
Pattern	5	Gain Control	Auto; manual
Scan	5	Noise Reduction	2D NR; 3D NR
Power-off Memory	Yes	Motion Detection	Yes
Idle Motion	Pattern; Preset; Scan; Tour	Region of Interest (RoI)	Yes
Intelligence		Image Stabilization	Electronic (EIS)
Video Motodata	Video Metadata Detects motor and non-motor vehicles, faces and human bodies. It also performs tracking, takes snapshots, uploads high-quality face images and optimizes images. It extracts attributes from motor		Electronic
video Metada(a			16×

optimizes images. It extracts attributes from motor vehicles, detecting up to 10 attributes for them.

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Image Rotation	180°	
Privacy Masking	Up to 24 areas can be set, with up to 8 areas in the same view	
S/N Ratio	≥ 55 dB	
Audio		
Audio Compression	PCM; G.711a; G.711Mu; G.726; MPEG2-Layer2; G722.1; G729; G723	
Network		
Network Port	1 × RJ-45 (10/100 Base-T)	
Network Protocol	FTP; RTMP; IPv6; Bonjour; IPv4; DNS; RTCP; PPPoE; NTP; RTP; 802.1x; HTTP5; SNMP; TCP/IP; DDNS; UPnP; NFS; ICMP; UDP; IGMP; 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 (Up to 512 GB); FTP; 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: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB,ANSI C63.4- 2014 UL: UL60950-1+CAN/CSA 22.2,No.60950-1	
Port		
Audio Input	1 channel	
Audio Output	1 channel	
Alarm Linkage	Capture; recording; send email; preset; tour; pattern; alarm digital output	
Alarm Event	Motion/Tampering detection; audio detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection	
Alarm I/O	2/1	
Audio I/O	1/1	
Power		
Power Supply	24 VDC, 2.5 A ± 25% PoE+ (802.3at)	
Power Consumption	Basic: 10 W Max: 22 W (illuminator on + Heater + Fan)	
Environment		
Operating Temperature	-40 °C to +70 °C (-40 °F to +158 °F)	
Operating Humidity	≤ 95% (RH)	
Protection	IP67; IK10; TVS 6000V lightning proof; surge protection; voltage transient protection	
Structure		

Product Dimensions	332 mm × Φ190 mm (13.07" × Φ7.48")
Net Weight	4.7 kg (10.36 lb)
Gross Weight	8.0 kg (17.64 lb)

Ordering Information				
Туре	Model	Description		
4MP WizSense PTZ Camera	DH-SD5A445GB-HNR	4MP 45x Starlight IR WizSense Network PTZ Camera		
	SD5A445GB-HNR	4MP 45x Starlight IR WizSense Network PTZ Camera		
Accessories	PFB305W	Wall Mount Bracket		
	DC 24 V/2.5 A	Power Adapter		
	PFA111	Mount Adapter		
	PFA120	Mount Adapter		
	PFB300C	Ceiling Mount Bracket		
	PFA150	Pole Mount Bracket		
	PFA151	Corner Mount Bracket		
	PFB301C	Ceiling Mount Bracket		



#### Included:





PFB305W Wall Mount Bracket

DC 24 V/2.5 A Power Adapter

### Optional:



PFA111 Mount Adapter



PFA150 Pole Mount Bracket



PFA120 Water-proof Junction Box



PFA151 Corner Mount Bracket



PFB300C Ceiling Mount Bracket



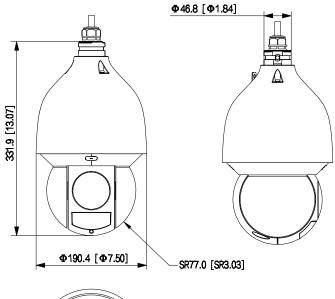
PFB301C Ceiling Mount Bracket

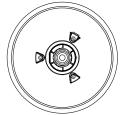
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### Installation

Wall Mount	Ceiling Mount 1	Ceiling Mount 2
PFB306W+PFA120	PFA111+PFB300C	PFA111+PFB301C
Pole Mount (Vertical)	Corner Mount	Pole Mount (Horizontal)
PFB305#+PFA150	PFB305W+PFA151	PFA111+PFB300C+PFA150

### Dimensions (mm [inch])





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