

# 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** In Camera 1/2.8" CMOS Vi Image Sensor Pixel 4 MP 2560 (H) × 1440 (V) Max. Resolution IV 4 GB ROM 1 GB RAM 1/1 s-1/30,000 s **Electronic Shutter Speed** Progressive Scanning System Fa Color: 0.005 lux@F1.6 B/W: 0.0005 lux@F1.6 Min. Illumination 0 lux (IR light on) 150 m (492.13 ft) Illumination Distance Illuminator On/Off Control Zoom Prio; Manual; Smart IR; Off Ρ 4 (IR) Illuminator Number Lens Α Focal Length 3.95 mm-177.75 mm SI Max. Aperture F1.6-F4.95 A Field of View H: 65.7°-1.9°; V: 39.4°-1.1°; D: 73.1°-2.1° **Optical Zoom** 45× Α **Focus Control** Auto; semi-auto; manual V **Close Focus Distance** 0.1 m-1 m (0.33 ft-3.28 ft) Iris Control Auto; manual v Detect Observe Recognize Identify St 2,451.7 m 972.9 m 490.3 m 245.2 m (8,043.64 ft) (3,191.93 ft) (1,608.60 ft) (804.46 ft) Re \*DORI (Detect, Observe, Recognize, Identify) is DORI Distance 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 Vi numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and commissioning manual/ project design tool. Bi PTZ v Pan: 0° to 360° endless Pan/Tilt Range Tilt: -15° to +90°, auto flip 180° D Pan: 0.1°/s-300°/s Manual Control Speed Tilt: 0.1°/s-200°/s В Preset Speed Pan: 400°/s; Tilt: 300°/s w Preset 300 H Tour 8 (up to 32 presets per tour) ١٨ Pattern 5 G 5 Scan Ν Power-off Memory Yes N Idle Motion Pattern; Preset; Scan; Tour Re

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 vehicles, detecting up to 10 attributes for them.
Tripwire; intrusion; climbing fences; loitering detection; abandoned/missing object; fast moving; parking detection; people gathering; vehicle/human alarm classification; linkage tracking
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.
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.
Yes
SMD 4.0
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.
It triggers the IVS rule when a target is detected and makes the camera link with the PTZ to rotate to the position of the target and patrol based on its presets.
H.264H; H.264B; Smart H.265+; H.264; H.265; MJPEG(Sub Stream); Smart H.264+
3 streams
4M (2560 × 1440); 3M (2048 × 1536); 3M (2304 × 1296); 1080p (1920 × 1080); 720p (1280 × 720); D1 (704 × 576); VGA (640 × 480); CIF (352 × 288)
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)
CBR/VBR
H.264: 96 kbps–14848 kbps H.265: 38 kbps–8960 kbps
Auto (ICR)/Color/B/W
Yes
120 dB
Yes
Auto; indoor; outdoor; ATW; manual; sodium lamp; natural light; street lamp
Auto; manual
2D NR; 3D NR
Yes
Yes

## Wiz Sense | DH-SD5A445GB-HNR

Image Stabilization	Electronic (EIS)
Defog	Electronic
Digital Zoom	16×
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; HTTPS; 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** Model Description Туре 4MP 45x Starlight IR WizSense Network PTZ DH-SD5A445GB-HNR 4MP Camera WizSense 4MP 45x Starlight IR WizSense Network PTZ PTZ Camera SD5A445GB-HNR Camera PFB305W Wall Mount Bracket DC 24 V/2.5 A Power Adapter PFA111 Mount Adapter PFA120 Mount Adapter Accessories PFB300C Ceiling Mount Bracket PFA150 Pole Mount Bracket PFA151 Corner Mount Bracket PFB301C Ceiling Mount Bracket

## Accessories

## Included:





PFB305W Wall Mount Bracket

DC 24 V/2.5 A Power Adapter

## Optional:

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PFA111

Mount Adapter

PFA150

Pole Mount

Bracket



PFA120 Water-proof Junction Box

PFA151

Corner Mount

Bracket



PFB300C Ceiling Mount Bracket







PFB301C Ceiling Mount Bracket

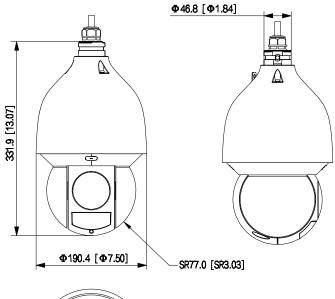
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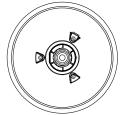
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## Installation

Wall Mount	Ceiling Mount 1	Ceiling Mount 2
PFB306W+PFA120	PFA111+PFB300C	PFA111+PFB301C
8		
Pole Mount (Vertical)	Corner Mount	Pole Mount (Horizontal)
PFB305#+PFA150	PFB306W+PFA151	PFA111+PFB300C+PFA150
<b>B</b>		

## Dimensions (mm [inch])





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