

# DH-SD5A245GB-HNR

2MP 45x Starlight IR 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.

## 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" 2Megapixel STARVIS™ CMOS.
- 45x optical zoom.
- Starlight technology.
- Max. 50/60fps@1080P.
- IR distance up to 150 m.
- Auto-tracking 3.0.
- Perimeter protection.
- Face detection.
- SMD 4.0.
- 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.

Technical Specification					Intelligence
Camera					
Image Sensor					IVS (Perimeter Protection)
Pixel					Tripwire; intrusion; climbing fences; loitering detection; abandoned/missing object; fast moving; parking detection; people gathering; vehicle/human alarm classification; linkage tracking
Max. Resolution					
ROM					
RAM					
Electronic Shutter Speed					
Scanning System					
Min. Illumination					
Illumination Distance					
Illuminator On/Off Control					
Illuminator Number					
Lens					
Focal Length					
Max. Aperture					
Field of View					
Optical Zoom					
Focus Control					
Close Focus Distance					
Iris Control					
DORI Distance	Detect	Observe	Recognize	Identify	
	2451.7 m (8043.64 ft)	972.9 m (3191.93 ft)	490.3 m (1608.60 ft)	245.2 m (804.46 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					
Manual Control Speed					
Preset Speed					
Preset					
Tour					
Pattern					
Scan					
Power-off Memory					
Idle Motion					
IVS (Perimeter Protection)					
Face Detection					
Video Metadata					
People Counting					
Auto Tracking					
SMD					
Auto Patrol					
Acupick					
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); 960p (1280 × 960); 720p (1280 × 720); D1 (704 × 576); VGA (640 × 480); CIF (352 × 288)
Video Frame Rate					Main stream: 1080P/1.3M/720p@ (1–50/60 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					H264: 64 kbps–10496 kbps H265: 25 kbps–6400 kbps
Day/Night					Auto (ICR)/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
Noise Reduction					2D/3D

Motion Detection	Yes
Region of Interest (RoI)	Yes
Image Stabilization	Electronic (EIS)
Defog	Electronic
Digital Zoom	16x
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
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**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
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**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)

**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 × Ø190 mm (13.07" × Ø7.48")
Net Weight	4.7 kg (10.36 lb)
Gross Weight	8.0 kg (17.64 lb)

**Ordering Information**

Type	Model	Description
2MP WizSense PTZ Camera	DH-SD5A245GB-HNR	2MP 45x Starlight IR WizSense Network PTZ Camera
	SD5A245GB-HNR	2MP 45x Starlight IR WizSense Network PTZ Camera
	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

**Accessories**

Included:



PFB305W  
Wall Mount Bracket



DC 24 V/2.5 A  
Power Adapter

Optional:



PFA111  
Mount Adapter



PFA120  
Water-proof  
Junction Box



PFB300C  
Ceiling Mount  
Bracket



PFA150  
Pole Mount  
Bracket

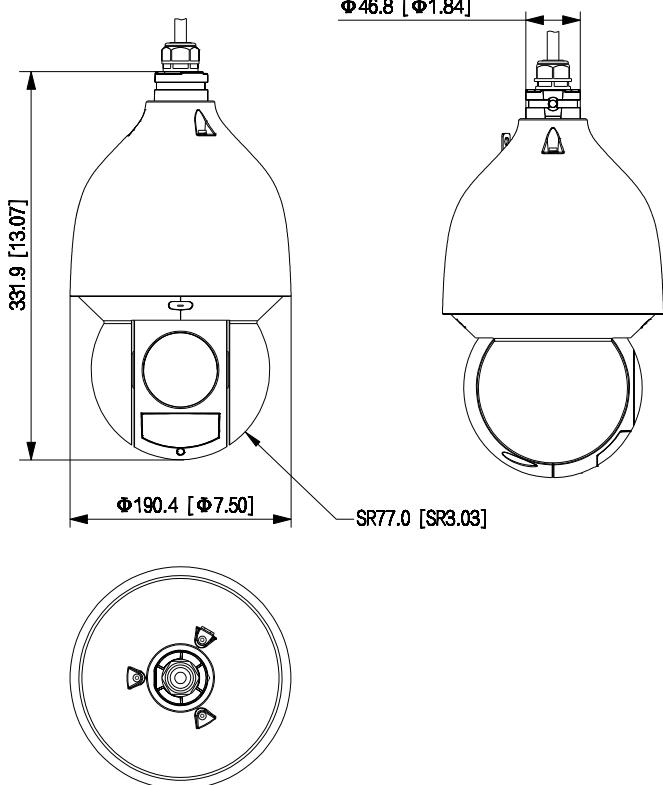


PFA151  
Corner Mount  
Bracket



PFB301C  
Ceiling Mount  
Bracket

**Dimensions (mm [inch])**



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