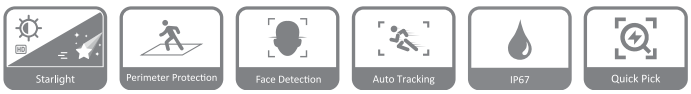
DH-SD5A232GB-HNR 5

2MP 32x Starlight IR Network PTZ Camera



- 1/2.8" 2Megapixel STARVIS™ CMOS.
- 32x optical zoom.
- Starlight technology.
- Max. 25/30fps@1080P.
- IR distance up to 150 m.
- Auto-tracking 3.0.
- Perimeter protection.
- Face detection.
- SMD 4.0.
- Quick Pick.
- IP67, IK10.



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.

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

Camera

Image Sensor 5.5	1/2.8" CMOS
Pixel	2 MP
Max. Resolution 5.2	1920 (H) × 1080 (V)
ROM	4 GB
RAM	1 GB
Electronic Shutter Speed	1/1 s–1/30,000 s
Scanning System	Progressive
Min. Illumination 5.4	Color: 0.005 lux@F1.6 B/W: 0.0005 lux@F1.6 0 lux (IR light on)
Illumination Distance	150 m (492.13 ft)
Illuminator On/Off Control	Zoom Prio; Manual; Smart IR; Off
Illuminator Number	4 (IR)

Lens

Focal Length	4.5 mm–144 mm
Max. Aperture	F1.6–F4.0
Field of View	H: 58.4°–3.0°; V: 33.4°–1.7°; D: 66.4°–3.4°
Optical Zoom 5.1	32×
Focus Control	Auto; semi-auto; manual
Close Focus Distance	0.1 m–1.5 m (0.33 ft–4.92 ft)
Iris Control	Auto; manual

DORI Distance	Detect	Observe	Recognize	Identify
	1986 m (6515.75 ft)	785 m (2575.46 ft)	398 m (1305.77 ft)	198 m (649.61 ft)

PTZ

Pan/Tilt Range 5.1	Pan: 0° to 360° endless Tilt: –15° to +90°, auto flip 180°
Manual Control Speed	Pan: 0.1°/s–300°/s Tilt: 0.1°/s–200°/s
Preset Speed	Pan: 400°/s; Tilt: 300°/s
Preset	300
Tour	8 (up to 32 presets per tour)
Pattern	5
Scan	5
Power-off Memory	Yes
Idle Motion	Pattern; Preset; Scan; Tour

Intelligence

IVS (Perimeter Protection)	Tripwire; intrusion; climbing fences; loitering detection; abandoned/missing object; fast moving; parking detection; people gathering; vehicle/human alarm classification; linkage tracking
Face Detection	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.
Auto Tracking	Yes
SMD	Yes
Quick Pick	Yes

Video

Video Compression 5.9	H.264H; H.264B;Smart H.265+; H.264; H.265; MJPEG(Sub Stream 1); Smart H.264+
Streaming Capability 5.7	3 streams
Resolution	1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)
Video Frame Rate 5.3	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	H264: 64 kbps–10496 kbps H265: 25 kbps–6400 kpbs
Day/Night	Auto (ICR)/Color/B/W
BLC	Yes
WDR	120 dB
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 5.6	Yes
Region of Interest (RoI)	Yes
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 5.11	RJ-45 (10/100 Base-T)

Network Protocol 5.10	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 5.14
Interoperability 5.8	ONVIF (Profile S&G&T); CGI; SDK 5.16
Streaming Method	Unicast/Multicast
User/Host	20 (total bandwidth: 64 M)
Storage 5.15	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 5.17	CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4-2014 UL: UL60950-1+CAN/CSA C22.2, No.60950-1
Port	
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 5.11	24 VDC, 2.5 A ± 25% PoE+ (802.3at)
Power Consumption	Basic: 10 W Max: 22 W (illuminator on + Heater + Fan)
Environment 5.13	
Operating Temperature	–40°C to +70°C
Operating Humidity	≤ 95% (RH)
Protection 5.12	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

Type	Model	Description
2MP WizSense PTZ Camera	DH-SD5A232GB-HNR	2MP 32x Starlight IR WizSense Network PTZ Camera
	SD5A232GB-HNR	2MP 32x 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

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

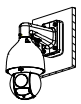
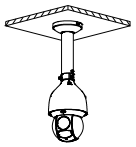
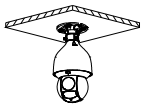
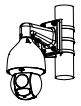
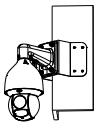
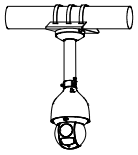


PFA151
Corner Mount
Bracket

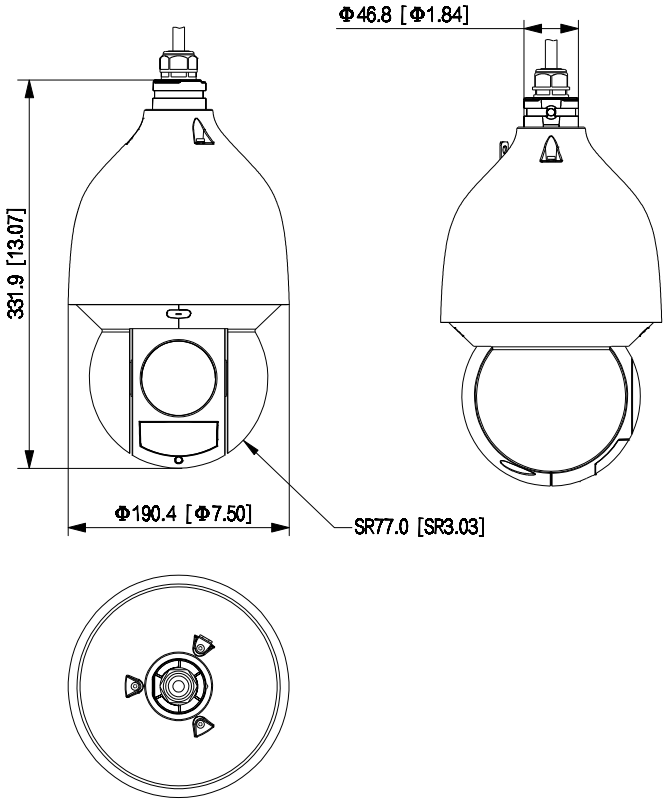


PFB301C
Ceiling Mount
Bracket

Installation

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
		

Dimensions (mm [inch])



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