DH-SD50232GB-HNR

2MP 32x Startlight WizSense Network PTZ Camera

WizSense

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

With its powerful optical zoom, and accurate pan and tilt capabilities, the PTZ camera provides an all-in-one solution for large-scale monitoring. It harnesses the latest starlight technology, allowing it to produce highly detailed images even in low light conditions. The camera offers smooth control and high-grade protection that enable it to meet the requirements of video surveillance in small and medium-sized scenes.

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.

Wide Dynamic Range

The camera produces vivid images, even in high-contrast lighting conditions, by using industry-leading wide dynamic range (WDR) technology. For scenes that quickly alternate between bright and low lighting, WDR adjusts to fully capture both the bright and dark areas of a scene, producing superior quality videos.

- 1/2.8" 2Megapixel STARVIS™ CMOS.
- 32× optical zoom.
- Starlight technology.
- Max. 25/30 fps@2 MP.
- Auto-tracking 3.0.
- Quick Pick.
- Perimeter protection.
- Face detection.
- SMD4.0.
- IP67.
- IK10.

Starlight	WDR	IP67	IK10	Perimeter Protection	Quick Pick

Protection (IP67, TVS 6000 V)

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

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.

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.

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	1/2.8" STARVIS™ CMOS
Pixel	2 MP
Max. Resolution	1920 (H) × 1080 (V)
ROM	4 GB
RAM	1 GB
Electronic Shutter Speed	1/1–1/30000 s
Scanning System	Progressive
Min. Illumination	Color: 0.005Lux@F1.6 B/W: 0.0005Lux@F1.6

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	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
	1,986 m (6,915.75 ft)	785 m (2,575.46 ft)	398 m (1,305.77 ft)	198 m (649.61 ft)

PTZ

Pan/Tilt Range	Tilt: 0° to +90°, auto flip 180 Pan: 0° to 360° endless
Manual Control Speed	Pan: 0.1°/s–350°/s; Tilt: 0.1°/s–250°/s
Preset Speed	Pan: 500°/s; Tilt: 500°/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
PTZ Protocol	DH-SD

Intelligence

IVS (Perimeter Protection)	Tripwire; intrusion; crossing fence detection; 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	With AI NVR, quickly pick up the human/vehicle targets that users are interested in from SMD events.

Video

Video Compression	H.264H; H.264B; Smart H.265+; H.264; H.265; MJPEG (Sub Stream1); Smart H.264+
Streaming Capability	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	Main stream: 1080P/1.3M/720P (1–50/60 fps) Sub stream 1: D1/VGA/CIF (1–25/30 fps) Sub stream 2: 720P (1–25/30 fps)
Bit Rate Control	CBR/VBR
Video Bit Rate	H.265/H.264: 3 kbps–20480 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 Image Stabilization (EIS)
Defog	Yes
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	G.711a; G.711Mu; G.722.1; G.726; MPEG2-Layer2; G.729; G.723; PCM

Network

Network Port	RJ-45 (10/100Base-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 (512 GB); FTP/SFTP; NAS

WizSense | DH-SD50232GB-HNR

Browser	IE 9 and later versions Chrome 42 and later versions Firefox 50 and later versions Safari 10 and later versions
Management Software	DSS Pro; DMSS
Mobile Client	iOS; Android

Certification

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

Port

Audio Input	1 channel (LINE IN, bare wire)
Audio Output	1 channel (LINE OUT,bare wire)
Alarm Linkage	Capture; preset; tour; pattern; recording; alarm digital input; audio; send email
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% (Included) PoE+ (802.3at)
Power Consumption	Basic: 12.8 W Max: 16 W

Environment

Operating Temperature	−40°C to +60°C (−40°F to +140°F)
Operating Humidity	≤ 95% (RH)
Storage Temperature	−40 °C to +60 °C (−40 °F to +140 °F)
Storage Humidity	≤ 95%
Protection	IP67; IK10; 6000V lightning proof; surge protection; voltage transient protection

Structure

Product Dimensions	Φ186 mm × 253 mm (Φ7.32" × 9.96")
Net Weight	2.5 kg (5.51 lb)
Gross Weight	4.5 kg (9.92 lb)

Ordering Information

Type	Model	Description
2MP WizSense PTZ Camera	DH-SD50232GB-HNR	2MP 32x Starlight IR WizSense Network PTZ Camera
	SD50232GB-HNR	2MP 32x Starlight IR WizSense Network PTZ Camera
Accessories	PFB300S	Wall Mount Bracket
	PFA110	Mount Adapter
	DC 24 V/2.5 A	Power Adapter
	PFA140	Power Box
	PFB300C	Ceiling Mount Bracket
	PFA120	Junction Box
	PFA150	Pole Mount Bracket
	PFA151	Corner Mount Bracket
	PFB303S	Parapet Mount Bracket
	PFB301S-E	Plane Mount Bracket
	TF-P100	MicroSD Memory Card
	PFM900-E	Integrated Mount Tester

Accessories

Included:

PFB300S Wall Mount Bracket	PFA110 Mount Adapter	DC24V/2.5A Power Adapter

Optional:

PFA140 Power Box	PFB300C Ceiling Mount Bracket	PFA120 Junction Box

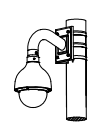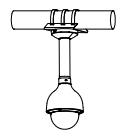| PFA150 Pole Mount Bracket	PFA151 Corner Mount Bracket	PFB303S Parapet Mount Bracket
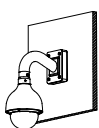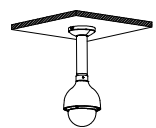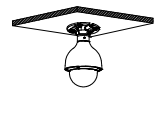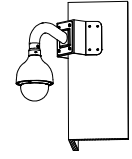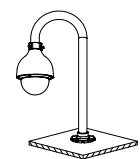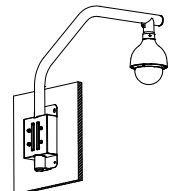
PFB301S-E Plane Mount Bracket	TF-P100 MicroSD Memory Card	PFM900-E Integrated Mount Tester

Wall Mount	Ceiling Mount	Ceiling Mount
PFA110+PFB300S+PFA120	PFA110+PFB300C	PFA110+PFB301C
Pole Mount(Vertical)	Pole Mount(Horizontal)	Corner Mount
PFA110+PFB300S+PFA150	PFA110+PFB300C+PFA150	PFA110+PFB300S+PFA151
Plane Mount	Parapet Mount	
PFB301S-E	PFA110+PFB303S	

Dimensions (mm[inch])

Ø47.3 [Ø1.86]

185.0 [6.50]

253.0 [9.96]

Ø140.3 [Ø5.53]

Ø186.2 [Ø7.33]