



DH-SD49225XA-HNR-S2

2MP 25x Starlight IR WizSense 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

Dahua AI PTZ network camera adopts advanced CNN deep learning algorithms to support face recognition with high accuracy. This camera possesses wide monitoring range and PFA algorithm that can always present a clear, focused image while zooming, and adopts smart wiper technology that supported by RainSensor.

Functions

Perimeter Protection

Automatically filters out false alarms caused by animals, rustling leaves, bright lights, etc. Enables system to act secondary recognition for the targets. Improves alarm accuracy.

Starlight Technology

For challenging low-light applications, Dahua's Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing color details in low light down to 0.005 lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

Environment

Dahua cameras can operate in extreme temperature environments, rated for use in temperatures from-40 °C to +70 °C (-40 °F to +158 °F) with 95% humidity. Subjected to rigorous dust and water immersion tests and certified to the IP66 Ingress Protection rating makes it suitable for demanding outdoor applications.

- 1/2.8" 2Megapixel CMOS
- · Powerful 25x optical zoom
- Starlight technology
- · Perimeter protection
- · PoE+
- IP66
- · IR distance up to 100m
- · SMD PLUS











The camera allows for 6 kV lightning rating, which provides effective protection for both the camera and its structure against lightning.

PFA Technology

PFA technology has innovatively introduced new methods of judgment to ensure the accuracy and predictability of the direction of subject distance adjustment. The result is a set of advanced focusing algorithms. PFA ensures clarity of the image throughout the process of zooming and shortens focus time. The realization of PFA technology substantially improves user experience and increases product value.

Technical Specification				IVS	Object abandoned; object missing		
Camera						Artificial Intelligence	
Image Sensor	1/2.8" CMOS					Smart Capture	Support human, motor vehicle and non-motor vehicle
Pixel	2 MP					Perimeter Protection	image capture. Tripwire and intrusion. Support alarm triggering by target types (human and vehicle). Support filtering false alarms caused by animals, rustling leaves, bright lights, etc.
Max. Resolution	1920 (H) × 1080 (V)						
ROM	256 MB					Face Detection	Yes
RAM	1 GB					SMD PLUS	Yes
Electronic Shutter Speed	1/1 s-1/30000 s					Video	
Scanning System	Progressive					Compression	Smart H.265+; H.265; Smart H.264+; H.264B; H.264M; H.264H; MJPEG (Sub Stream)
Min. Illumination	Color: 0.005 lux@F1.6 B/W: 0.0005 lux@F1.6 0 lux (IR light on)					Streaming Capability	3 streams
Illumination Distance	100 m (328.08 ft)					Resolution	1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); CIF (352 × 288/352 × 240)
Illuminator On/Off Control	Zoom Prio; Manual; Smart IR; Off				Frame Rate	Main stream: 1080p/1.3 M/720p (1–50/60 fps) Sub stream 1: D1/CIF (1–25/30 fps) Sub stream 2: 1080 p/1.3M/720p/D1/CIF (1–25/30 fps)"	
Illuminator Number	6 (IR light)	6 (IR light)					
Lens						Bit Rate Control	CBR; VBR
Focal Length Max. Aperture	4.8 mm–120 mm F1.6–F3.5					Bit Rate	Default resolution of the main stream: H.264: 32 Kbps–8192 Kbps H.265: 32 Kbps–8192 Kbps
Field of View	H: 62.8°–2.6°; V: 33.2°–1.7°; D: 67.3°–3.9°					Day/Night	Auto (ICR); Color; B/W
Optical Zoom	H: 62.8 -2.6 ; V: 33.2 -1.7 ; D: 67.5 -3.9					BLC	Yes
Focus Control	Auto; Semi-Auto; Manual					WDR	120 dB
Close Focus Distance	0.1 m-1.5 m (0.33 ft-4.92 ft)					HLC	Yes
Iris Control	Auto; Manual					White Balance	Auto; Indoor; Outdoor; Tracking; Manual; Sodium Lamp; Natural Light; Street Lamp
	Detect	Observe	Recognize	Identify		Gain Control	Auto; Manual
DORI Distance	1655 m (5429.79 ft)	654 m (2145.67 ft)	331 m (1085.96 ft)	165 m (541.34 ft)		Noise Reduction	2D; 3D
PTZ	,	,	,	,		Motion Detection	Yes
Pan/Tilt Range	Pan: 0° to 360° endless				Region of Interest (RoI)	Yes	
_	Tilt: -15° to +90°, auto flip 180°				Defog	Electronic	
Manual Control Speed	Pan: 0.1°–200°/sTilt: 0.1°–120°/s				Flip	180°	
Preset Speed	Pan: 240°/s; Tilt: 200°/s					Privacy Masking	Up to 24 areas, and up to 8 areas in the same view
Preset	300					S/N Ratio	≥ 55 dB
Tour	8 (up to 32 presets per tour)					Audio	
Pattern	5					Compression	G.711a; G.711Mu; G.726; AAC; MPEG2-Layer2; G722.1
Scan	5					Network	
Speed Adjustment	Yes					Ethernet	RJ-45 (10/100 Base-T)
Power-off Memory Idle Motion	Yes Preset; Pattern; Tour; Scan					Protocol	HTTP; HTTPS; IPv4; RTSP; UDP; SMTP; NTP; DHCP; DNS; DDNS; IPv6; 802.1x; Qos; FTP; UPnP; ICMP; SNMP; SNMP v1/v2c/v3 (MIB-2); IGMP; ARP; RTCP; RTP; PPP0E; RTMP;
Protocol	DH-SDPelco-P/D (auto recognition)						TCP
General Intelligence				Interoperability	ONVIF (Profile S&G&T); CGI		
	Motion detection, video tampering, scene changing, network disconnection, IP address conflict, illegal access, and storage anomaly					Streaming Method	Unicast; Multicast
Event Trigger						User/Host	20 (total bandwidth: 64 MB)



Storage	Imou Cloud; FTP; Micro SD card (max. 512 GB); NAS	
Browser	IE7 and later versions; Chrome; Firefox; Safari	
Management Software	Smart PSS; DSS; IVSS; Configtool; NVR; Smart Player; Imou	
Mobile Phone	IOS; Android	
Certification		
Certifications	CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4-2014 UL: UL60950-1+CAN/CSA C22.2, No. 60950-1	
Port		
Audio Input	1	
Audio Output	1	
Alarm Input	2 (on-off value input: 0–5 VDC)	
Alarm Output	1	
Alarm Linkage	Capture; preset; tour; pattern; recording, triggering on- off value output; audio; sending email	
Alarm Event	Motion/tampering detection; audio detection; network disconnection detection; IP conflict detection; encoder state detection; memory card state detection; memory space detection; power exception detection	
Power		
Power Supply	12 VDC/3A±10% PoE+ (802.3at)	
Power Consumption	Basic: 9W Max.: 23W	
Environment		
Operating Temperature	-40°C to +70°C (-40°F to +158°F)	
Operating Humidity	≤ 95%	
Protection	IP66; TVS 6000V lightning proof; surge protection; voltage transient protection	
Structure		
Casing	Aluminum alloy ADC12	
Dimensions	160 mm × Φ295 mm (6.30" × Φ11.61")	
Net Weight	3 kg (6.61 lb)	
Gross Weight	4.2 kg (9.26 lb)	

Ordering Information						
Туре	Part Number	Description				
2MP PTZ Camera	DH-SD49225XA-HNR-S2	2MP 25 Ordinary IR Network PTZ Camera, PAL				
	DH-SD49225XAN-HNR-S2	2MP 25 Ordinary IR Network PTZ Camera, NTSC				
	SD49225XA-HNR-S2	2MP 25 Ordinary IR Network PTZ Camera, PAL				
	SD49225XAN-HNR-S2	2MP 25 Ordinary IR Network PTZ Camera, NTSC				
	PFB305W	Wall Mount Bracket				
	PFA111	Mount Adapter				
	DC12V/3A	Power Adapter				
	PFA140	Power Box				
Accessories	PFB300C	Ceiling Mount Bracket				
	PFA120	Water-proof Junction Box				
	PFA150	Pole Mount Bracket				
	PFA151	Corner Mount Bracket				
	PFB303S	Parapet Mount Bracket				

Accessories

Included:



PFB305W Wall Mount Bracket

Optional:







DC12V/3A Power Adapter



PFA140 Power Box



PFB300C Ceiling Mount Bracket



PFA120 Water-proof Junction Box



PFA150 Pole Mount Bracket







PFB303S Parapet Mount Bracket

Wall Mount	Ceiling Mount	Ceiling Mount
PFB305W+PFA120	PFA111+PFB300C	PFA111+PFB301C
Pole Mount(Vertical)	Corner Mount	Pole Mount(Horizontal)
PFB305W+PFA150	PFB305W+PFA151	PFA111+PFB300C+PFA150
Plane Mount	Parapet Mount	
PFB301S-E	PFA111+PFB303S	

Dimensions (mm[inch])

