

DH-SD6AL245U-HNI-IR

2MP 45x Starlight IR PTZ Network Camera



- 1/2.8" 2Megapixel STARVIS™ CMOS
- Powerful 45x optical zoom
- Max. 50/60fps@1080P
- Auto tracking and IVS
- Support Hi-PoE
- IR distance up to 300m
- IP67



System Overview

Featuring powerful optical zoom and accurate pan/tilt/zoom performance, this camera provides an all-in-one solution for capturing long distance video surveillance for outdoor applications. Together with infrared illumination and Starlight Technology, the camera is the perfect solution for dark, lowlight applications. The series combines a day/night mechanical IR cut filter for the highest image quality in variable lighting conditions during the day, and True WDR for applications with direct sunlight or glare.

Functions

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.

Wide Dynamic Range

The camera achieves vivid images, even in the most intense contrast lighting conditions, using industry-leading wide dynamic range (WDR) technology. For applications with both bright and low lighting conditions that change quickly, True WDR (120 dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

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.

Smart H.265+

Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.

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.

Environmental

Dahua cameras operate in extreme temperature environments, rated for use in temperatures from -40 °C to +60 °C (-40 °F to +140 °F) with 95% humidity. Subjected to rigorous dust and water immersion tests and certified to the IP67 Ingress Protection rating makes it suitable for demanding outdoor applications.

Protection

The camera allows for ±25% input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 8KV lightning rating provides effective protection for both the camera and its structure against lightning.

Interoperability

The camera conforms to the ONVIF (Open Network Video Interface Forum) specifications, ensuring interoperability between network video products regardless of manufacturer.

Technical Specification				Auto Tracking	Support			
Image Sensor	1/2.8" STARVIS™ CMOS			IVS	Tripwire, Intrusion, Abandoned/Missing			
Effective Pixels	1920(H) x 1080(V), 2 Megapixels			Advanced Intelligent Functions	Face Detection, Heat Map			
RAM/ROM	1024M/128M			Video				
Scanning System	Progressive			Compression	H.265+/H.265/H.264+/H.264			
Electronic Shutter Speed	1/1s~1/30,000s			Streaming Capability	3 Streams			
Minimum Illumination	Color: 0.005Lux@F1.6; B/W: 0.0005Lux@F1.6; 0Lux@F1.6 (IR on)			Resolution	1080P(1920x1080)/1.3M(1280x960)/720P(1280x720)/D1(704x576/704x480)/CIF(352x288/352x240)			
S/N Ratio	More than 56dB				Main stream: 1080P/1.3M/720P(1~50/60fps)			
IR Distance	Distance up to 300m (984ft)				Sub stream1: D1/CIF(1 ~ 25/30fps)			
IR On/Off Control	Auto/Manual				Sub stream2: 1080P/1.3M/720P/D1/CIF (1~25/30fps)			
IR LEDs	1			Frame Rate	CBR/VBR			
Wiper	Support			Bit Rate	H.265/H.264: 448K ~ 8192Kbps			
Lens				Day/Night	Auto(ICR) / Color / B/W			
Focal Length	3.95mm~177.7mm			Backlight Compensation	BLC / HLC / WDR(120dB)			
Max. Aperture	F1.6~ F4.95			White Balance	Auto, ATW, Indoor, Outdoor, Manual			
Angle of View	H: 70.3° ~ 1.8°			Gain Control	Auto / Manual			
Optical Zoom	45x			Noise Reduction	Ultra DNR (2D/3D)			
Focus Control	Auto/Manual			Motion Detection	Support			
Close Focus Distance	100mm~ 1000mm			Region of Interest	Support			
DORI Distance				Electronic Image Stabilization (EIS)	Support			
*Note: The DORI distance is a "general proximity" of distance which makes it easy to pinpoint the right camera for your needs. The DORI distance is calculated based on sensor specification and lab test result according to EN 62676-4 which defines the criteria for Detect, Observe, Recognize and Identify respectively.				Defog	Support			
Detect	Observe	Recognize	Identify	Digital Zoom	16x			
2345m(7694ft)	938m(3077ft)	469m(1539ft)	234m(768ft)	Flip	180°			
PTZ				Privacy Masking	Up to 24 areas			
Pan/Tilt Range	Pan: 0° ~ 360° endless; Tilt: -20° ~ 90°,auto flip 180°			Audio				
Manual Control Speed	Pan: 0.1° ~200° /s; Tilt: 0.1° ~120° /s			Compression	G.711a/G.711Mu/AAC/G.722/G.726/G.729/MPEG2-L2			
Preset Speed	Pan: 240° /s; Tilt: 200° /s			Network				
Presets	300			Ethernet	RJ-45 (10Base-T/100Base-TX)			
PTZ Mode	5 Pattern, 8 Tour, Auto Pan ,Auto Scan			Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, SMTP, NTP, DHCP, DNS,PPPOE,DDNS,FTP, IP Filter,QoS,Bonjour,802.1x			
Speed Setup	Human-oriented focal Length/ speed adaptation			Interoperability	ONVIF Profile S&G, API			
Power up Action	Auto restore to previous PTZ and lens status after power failure			Streaming Method	Unicast / Multicast			
Idle Motion	Activate Preset/ Scan/ Tour/ Pattern if there is no command in the specified period			Max. User Access	20 users			
Protocol	DH-SD, Pelco-P/D (Auto recognition)			Edge Storage	NAS (Network Attached Storage),Local PC for instant recording, Micro SD card 256GB			
Intelligence				Web Viewer	IE, Chrome, Firefox, Safari			
Event Trigger	Motion detection, Video tampering , Scene changing, Network disconnection, IP address conflict, Illegal Access, Storage anomaly			Management Software	Smart PSS, DSS, DMSS			
				Smart Phone	IOS, Android			

Certifications

Certifications	CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB,ANSI C63.4- 2014
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Interface

Video Interface	1 port(BNC, 1.0V[p-p], 75Ω)
RS485	1
Audio I/O	1/1
Alarm I/O	7/2

Electrical

Power Supply	AC24V/3A(±25%), Hi-PoE
Power Consumption	24W, 38W (IR on)

Environmental

Operating Conditions	-40°C ~ 60°C (-40°F ~ +140°F) / Less than 95% RH
Ingress Protection	IP67
Vandal Resistance	N/A

Construction

Casing	Metal
Dimensions	Φ240(mm) x 357(mm)
Net Weight	6.75kg(14.88lb)
Gross Weight	10.5kg(23.15lb)

Ordering Information

Type	Part Number	Description
2MP PTZ Camera	DH-SD6AL245U-HNI-IR	2MP 45x Starlight IR PTZ Network Camera, WDR, PAL
	DH-SD6AL245UN-HNI-IR	2MP 45x Starlight IR PTZ Network Camera, WDR, NTSC
	SD6AL245U-HNI-IR	2MP 45x Starlight IR PTZ Network Camera, WDR, PAL
	SD6AL245UN-HNI-IR	2MP 45x Starlight IR PTZ Network Camera, WDR, NTSC
Accessories	PFB303W	Wall Mount
	PFA111	Mount Adapter
	AC24V/3A	Power Adapter
	PFA140	Power Box
	PFB300C	Ceiling Mount
	PFA120	Junction Box
	PFA150	Pole Mount
	PFA151	Corner Mount
	PFB303S	Parapet Mount

Accessories

Included:



PFB303W
Wall Mount



PFA111
Mount Adapter



AC24V/3A
Power Adapter

Optional:



PFA140
Power Box



PFB300C
Ceiling Mount



PFA120
Junction Box



PFA150
Pole Mount



PFA151
Corner Mount



PFB303S
Parapet Mount

Ceiling Mount	Junction Mount
PFA111 + PFB300C	PFA111 + PFB303W + PFA120
Power Box Mount	Pole Mount
PFA111 + PFB303W + PFA140	PFA111 + PFB303W + PFA150
Corner Mount	Parapet Mount
PFA111 + PFB303W + PFA151	PFA111 + PFB303S

Dimensions (mm)

