alhua
TECHNOLOGY

DH-SD6AL830V-HNI

4K 30x Laser PTZ Network Camera

· 1/1.7" 12Megapixel STARVIS™ CMOS
· Powerful 30x optical zoom
· H.265 Encoding
· Max. 25/30fps@4K
· Auto tracking and IVS
· Support Hi-PoE
· IR distance up to 500m
· IP67

| H.265 | ICR D/N | IP67 | Hi-PoE |

System Overview

Ultra series adopts top-notch DSP and advanced image sensor, which can offer excellent image performance for different environmental applications. The series supports UHD image up to 4K resolution, large optical zoom up to 48x, ultra starlight and WDR, powerful pan/tilt/zoom performance and etc. It also supports smart plan, such as IVS, face detection, heatmap and auto-tracking. The monitoring range is larger than before, the series is ideal for use in city and perimeter surveillance. Meanwhile, it is fully protected from dust and water, certified to IP67 and vandal resistant to IK10 standard. The ultra series offers industry-leading IR capability of more than 200m.

Functions

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.

Environmental

Dahua cameras 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 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) and PSIA (Physical Security Interoperability Alliance) specifications, ensuring interoperability between network video products regardless of manufacturer.

ONVIF **PSIA**

Technical Specification

Camera

Image Sensor	1/1.7" STARVIS™ CMOS
Effective Pixels	3840(H) x 2160(V), 8 Megapixels
RAM/ROM	1024M/128M
Scanning System	Progressive
Electronic Shutter Speed	1/1s~1/30,000s
Minimum Illumination	Color: 0.05Lux@F1.6; 0Lux (IR on)
S/N Ratio	More than 56dB
IR Distance	Distance up to 500m (1640ft)
IR On/Off Control	Auto/Manual
IR LEDs	Laser module

DORI Distance

*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.

Detect	Observe	Recognize	Identify
3892m(12769ft)	1557m(5108ft)	778m(2552ft)	389m(1276ft)

Lens

Focal Length	6mm~180mm
Max. Aperture	F1.6 ~ F4.8
Angle of View	H: 61.2° ~ 2.1°
Optical Zoom	30x
Focus Control	Auto/Manual
Close Focus Distance	100mm~ 1000mm

PTZ

Pan/Tilt Range	Pan: 0° ~ 360° endless; Tilt: -20° ~ 90°,auto flip 180°
Manual Control Speed	Pan: 0.1° ~200° /s; Tilt: 0.1° ~120° /s
Preset Speed	Pan: 240° /s; Tilt: 200° /s
Presets	300
PTZ Mode	5 Pattern, 8 Tour, Auto Pan ,Auto Scan
Speed Setup	Human-oriented focal Length/ speed adaptation
Power up Action	Auto restore to previous PTZ and lens status after power failure
Idle Motion	Activate Preset/ Scan/ Tour/ Pattern if there is no command in the specified period
Protocol	DH-SD, Pelco-P/D (Auto recognition)

Intelligence

Auto Tracking	Support
IVS	Tripwire, Intrusion,Abandoned/Missing, Face Detection

Video

Compression	H.265+/H.265/H.264+/H.264/MJPEG
Streaming Capability	3 Streams
Resolution	4K(3840x2160)/1080P(1920×1080)/1.3M(1280x 960)/720P(1280×720)/D1(704×576/704×480)/ CIF(352×288/352×240)
Frame Rate	Main stream: 4K/1080P/1.3M/720P(1~25/30fps)
	Sub stream1: D1/CIF(1 ~ 25/30fps)
	Sub stream2: 1080P/720P/D1(1 ~ 25/30fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.265/H.264: 256K ~ 8192Kbps, MJPEG: 56K ~ 20480Kbps
Day/Night	Auto(ICR) / Color / B/W
Backlight Compensation	BLC / HLC / DWDR
White Balance	Auto,ATW,Indoor,Outdoor,Manual
Gain Control	Auto / Manual
Noise Reduction	Ultra DNR (2D/3D)
Motion Detetion	Support
Region of Interest	Support
Electronic Image Stabilization (EIS)	Support
Defog	Support
Digital Zoom	16x
Flip	180°
Privacy Masking	Up to 24 areas

Audio

Compression	G.711a/G.711mu/PCM/G.726/AAC/G722.1/G.729/ MPEG2-Layer2

Network

Ethernet	RJ-45 (100Base-TX/1000Base-T)
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
Interoperability	ONVIF, PSIA, CGI
Streaming Method	Unicast / Multicast
Max. User Access	20 users
Edge Storage	NAS (Network Attached Storage),Local PC for instant recording, Micro SD card 128GB
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	Smart PSS, DSS
Smart Phone	IOS, Android

Certifications

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

Interface

Video Interface	1
Audio Interface	1/1
RS485	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 ~ 70°C (-40°F ~ +158°F) / Less than 90% 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
4K PTZ Camera	DH-SD6AL830V-HNI	4K 30x Laser PTZ Network Camera, PAL
	DH-SD6AL830VN-HNI	4K 30x Laser PTZ Network Camera, NTSC
	SD6AL830V-HNI	4K 30x Laser PTZ Network Camera, PAL
	SD6AL830VN-HNI	4K 30x Laser PTZ Network Camera, NTSC
Accessories	PFB303W	Wall Mount
	PFA111	Mount Adapter
	AC24V/3A	Power Supply
	PFA140	Power box
	PFB300C	Ceiling Mount
	PFA120	Junction Box
	PFA150	Pole Mount
	PFA151	Corner Mount
	PFB303S	Parapet mount

Accessories

Included:

PFB303W
Wall Mount

PFA111
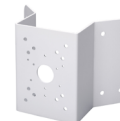Mount Adapter

AC24V/3A
Power Supply

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)

Ø46.3mm

Ø174mm

Ø357mm

Ø158mm

Ø214mm

Ø240mm