

# 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



## 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, 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.

## 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.

### 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 +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.

## 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, Heat Map |

### Video

|                                      |                                                                                                                              |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Compression                          | H.265+/H.265/H.264+/H.264/MJPEG                                                                                              |
| Streaming Capability                 | 3 Streams                                                                                                                    |
| Resolution                           | 4K(3840x2160)/1080P(1920x1080)/1.3M(1280x960)/720P(1280x720)/D1(704x576/704x480)/CIF(352x288/352x240)                        |
| Frame Rate                           | Main stream: 4K/1080P/1.3M/720P(1~25/30fps)<br>Sub stream1: D1/CIF(1 ~ 25/30fps)<br>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 Detection                     | 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<br>FCC: Part15 subpartB,ANSI C63.4- 2014 |
|----------------|------------------------------------------------------------------------|

**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**

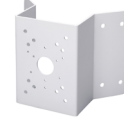
|                      |                                                  |
|----------------------|--------------------------------------------------|
| Operating Conditions | -40°C ~ 70°C (-40°F ~ +158°F) / Less than 90% RH |
| Ingress Protection   | IP67                                             |
| Vandal Resistance    | N/A                                              |

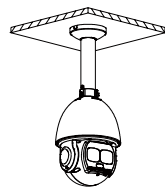
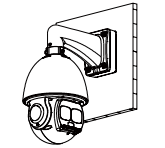
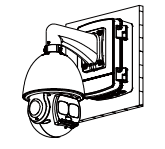
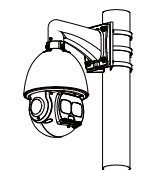
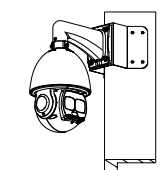
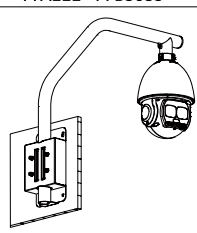
**Construction**

|              |                    |
|--------------|--------------------|
| Casing       | Metal              |
| Dimensions   | Ø240(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 Adapter                         |
|               | PFA140            | Power Box                             |
|               | PFB300C           | Ceiling Mount                         |
|               | PFA120            | Junction Box                          |
|               | PFA150            | Pole Mount                            |
|               | PFA151            | Corner Mount                          |
|               | PFB303S           | Parapet mount                         |

**Accessories****Included:**PFB303W  
Wall MountPFA111  
Mount AdapterAC24V/3A  
Power Supply**Optional:**PFA140  
Power BoxPFB300C  
Ceiling MountPFA120  
Junction BoxPFA150  
Pole MountPFA151  
Corner MountPFB303S  
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)**