



# DH-IPC-HDW5831R-ZE

## 8MP WDR IR Eyeball Network Camera



### System Overview

Eco-savvy products by upgrading H.265 encoding technology, bringing high efficient video compression. It saves bandwidth and storage, energy-saving design to enhance the monitoring system. Meanwhile, the series offers features such as starlight, Smart IR technology, intelligent image analysis techniques. It provides excellent image quality and intelligent and efficient event reminders. This series provides IP67 weatherproof and IK10 vandal-proof protection feature. Give customers more value

### Functions

#### ePoE technology

The ePoE technology of Dahua, designed internally, adopts advanced 2D-PAM3 coding modulation from physical layer, and realizes full duplex transmission over 800 meters at the speed of 10Mbps, or 300 meters at the speed of 100Mbps via Cat 5 or coaxial cable media. Besides, it supports PoE and PoC power supply technology which has greatly simplified construction and wiring. Dahua ePoE technology offer a new way to accomplish long distance transmission between IP camera and network switch. It allows more flexible surveillance system design, improves reliability and saves construction and wiring cost.

#### 4K technology

4K technology as a revolutionary breakthrough in image, which enhance the expressive image of essence, allowing users to experience the best picture quality brought about by the visual feast. For the purposes of 4K surveillance with four times the 1080P resolution, presented to the user with more details. Under the same scenario by raising the pixels, reduce the camera cost.

#### Wide Dynamic Range

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

- 1/2.5" 8Megapixel progressive scan STARVIS™ CMOS
- H.265&H.264 dual-stream encoding
- 15fps@4K(3840×2160),25/30fps@3M(2304×1296)
- Day/Night(ICR), 3DNR, AWB, AGC, BLC
- Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
- 2.7mm ~12mm motorized lens
- Built-in Mic
- Max. IR LEDs Length 50m
- Micro SD card memory, IP67, PoE



### Intelligent Video System (IVS)

With built-in intelligent video analytics, the camera has the ability to detect and analyze moving objects for improved video surveillance. The camera provides optional standard intelligence at the edge allowing detection of multiple object behaviors such as abandoned or missing objects. IVS also supports Tripwire analytics, allowing the camera to detect when a pre-determined line has been crossed, ideal for business intelligence, and Facial Detection, for searching or identification of individuals.

### Protection(IP67, wide voltage)

Supporting ±30% input voltage tolerance, this camera suits even the most unstable conditions for outdoor applications. Its 4KV lightning rating provides effective protection for both the camera and its structure against lightning. IP67 is supported by the camera, which makes it suitable for both indoor and outdoor environments.

### Smart H.265+

Deliver high quality video without straining the network, Smart H.265+ is the optimized implementation of H.265. The Smart H.265+ encoding technology includes a scene adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction, providing saving of up to 70% of bandwidth and storage when compared with standard H.265.

## Technical Specification

### Camera

|                          |  |
|--------------------------|--|
| Image Sensor             | 1/2.5" 8Megapixel progressive scan CMOS  |
| Effective Pixels         | 3840(H)x2160(V)  |
| RAM/ROM                  | 512MB/32MB   |
| Scanning System          | Progressive  |
| Electronic Shutter Speed | Auto/Manual, 1/3~1/100000s   |
| Minimum Illumination     | 0.05Lux/F1.4 (Color,1/3s,30IRE)<br>0.2Lux/F1.4 (Color,1/30s,30IRE)<br>0Lux/F1.4(IR on) |
| S/N Ratio                | More than 50dB   |
| IR Distance              | Distance up to 50m (164ft)   |
| IR On/Off Control        | Auto/ Manual   |
| IR LEDs                  | 2  |

### Lens

|                      |                          |             |            |            |            |
|----------------------|--------------------------|-------------|------------|------------|------------|
| Lens Type            | Motorized/ Auto Iris(DC) |             |            |            |            |
| Mount Type           | Board-in                 |             |            |            |            |
| Focal Length         | 2.7mm~12mm               |             |            |            |            |
| Max. Aperture        | F1.4                     |             |            |            |            |
| Angle of View        | H:110°~40° , V:58°~23°   |             |            |            |            |
| Optical Zoom         | 4x                       |             |            |            |            |
| Focus Control        | Motorized                |             |            |            |            |
| Close Focus Distance | 0.3m                     |             |            |            |            |
| DORI Distance        | Lens                     | Detect      | Observe    | Recognize  | Identify   |
|                      | W                        | 85m(280ft)  | 34m(112ft) | 17m(56ft)  | 8.5m(28ft) |
|                      | T                        | 228m(748ft) | 91m(299ft) | 46m(151ft) | 23m(75ft)  |

### Pan/Tilt/Rotation

|                         |  |
|-------------------------|--|
| Pan/Tilt/Rotation Range | Pan:0°~360°; Tilt:0°~78°; Rotation:0°~360° |
|-------------------------|--|

### Intelligence

|                                |   |
|--------------------------------|---|
| IVS                            | Tripwire, Intrusion, Object Abandoned/Missing |
| Advanced Intelligent Functions | Face Detection                                |

### Video

|                      |   |
|----------------------|---|
| Compression          | H.265+/H.265/H.264+/H.264   |
| Streaming Capability | 3 Streams   |
| Resolution           | 4K(3840x2160)/ 6M(3072x2048)/5M(3072x1728)/<br>5M(2592x1944)/ 4M(2688x1520)/ 3M(2048x1536)/<br>3M(2304x1296)/ 1080P(1920x1080)/1.3M(1280x960)/ 720P(1280x720)/ D1(704x576/704x480)/<br>VGA(640x480)/ CIF(352x288/352x240) |
| Frame Rate           | Main Stream: 4K(1~15fps)/3M(1~25/30fps)   |
|                      | Sub Stream: D1(1~25/30fps)  |
|                      | Third Stream: 720P(1~25/30fps)  |
| Bit Rate Control     | CBR/VBR   |

|                                      |  |
|--------------------------------------|--|
| Bit Rate                             | H.264: 24K ~ 10240Kbps H.265: 14K ~ 9984Kbps |
| Day/Night                            | Auto(ICR) / Color / B/W                      |
| BLC Mode                             | BLC / HLC / WDR                              |
| White Balance                        | Auto/Natural/Street Lamp/Outdoor/Manual      |
| Gain Control                         | Auto/Manual                                  |
| Noise Reduction                      | 3D DNR                                       |
| Motion Detetion                      | Off / On (4 Zone, Rectangle)                 |
| Region of Interest                   | Off / On (4 Zone)                            |
| Electronic Image Stabilization (EIS) | N/A  |
| Smart IR                             | Support                                      |
| Defog                                | N/A  |
| Digital Zoom                         | 16x  |
| Flip                                 | 0°/90°/180°/270°                             |
| Mirror                               | Off / On                                     |
| Privacy Masking                      | Off / On (4 Area, Rectangle)                 |

### Audio

|             |                             |
|-------------|-----------------------------|
| Compression | G.711a/ G.711Mu/ AAC/ G.726 |
|-------------|-----------------------------|

### Network

|                     |  |
|---------------------|--|
| Ethernet            | RJ-45 (10/100Base-T)   |
| Protocol            | HTTP; HTTPS; TCP; ARP; RTSP; RTP; UDP; SMTP; FTP;<br>DHCP; DNS; DDNS; PPPOE; IPv4/v6; QoS; UPnP;NTP;<br>Bonjour; 802.1x; Multicast; ICMP; IGMP; SNMP |
| Interoperability    | ONVIF, PSIA, CGI   |
| Streaming Method    | Unicast / Multicast  |
| Max. User Access    | 10 Users /20 Users   |
| Edge Storage        | NAS<br>Local PC for instant recording<br>Mirco SD card 128GB   |
| Web Viewer          | IE, Chrome, Firefox, Safari  |
| Management Software | Smart PSS, DSS, Easy4ip  |
| Smart Phone         | IOS, Android   |

### Certifications

|                |  |
|----------------|--|
| Certifications | CE (EN 60950:2000)<br>UL:UL60950-1<br>FCC: FCC Part 15 Subpart B |
|----------------|--|

### Interface

|                 |              |
|-----------------|--------------|
| Video Interface | N/A          |
| Audio Interface | Built-in Mic |
| RS485           | N/A          |
| Alarm           | N/A          |

### Electrical

|                   |                              |
|-------------------|------------------------------|
| Power Supply      | DC12V, PoE(802.3af)(Class 0) |
| Power Consumption | <8.5W                        |

Environmental

|                      |   |
|----------------------|---|
| Operating Conditions | -30° C ~ +60° C (-22° F ~ +140° F) / Less than 95% RH |
| Storage Conditions   | -30° C ~ +60° C (-22° F ~ +140° F) / Less than 95% RH |
| Ingress Protection   | IP67  |
| Vandal Resistance    | N/A   |

Construction

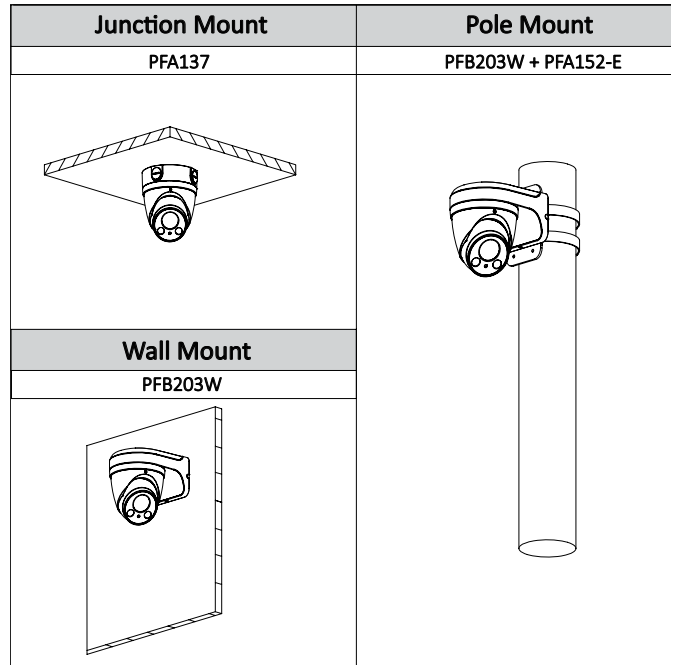
|              |                           |
|--------------|---------------------------|
| Casing       | Metal                     |
| Dimensions   | Φ122mm×104mm( 4.8"×4.09") |
| Net Weight   | 0.6Kg (1.32lb)            |
| Gross Weight | 0.76Kg (1.67lb)           |

Ordering Information

| Type                   | Part Number         | Description                              |
|------------------------|---------------------|--|
| 8MP camera             | DH-IPC-HDW5831RP-ZE | 8MP IR Eyeball Network Camera, WDR, PAL  |
|                        | DH-IPC-HDW5831RN-ZE | 8MP IR Eyeball Network Camera, WDR, NTSC |
|                        | IPC-HDW5831RP-ZE    | 8MP IR Eyeball Network Camera, WDR, PAL  |
|                        | IPC-HDW5831RN-ZE    | 8MP IR Eyeball Network Camera, WDR, NTSC |
| Accessories (optional) | PFB203W             | Wall mount                               |
|                        | PFA137              | Junction box                             |
|                        | PFA152-E            | Pole Mount                               |
|                        | LR1002              | ePoE Over Coax Converter                 |

Accessories

Optional:



Dimensions (mm/inch)

