

DH-IPC-HDBW1431R-ZS-S4

4MP Entry IR Vari-focal Dome Network Camera



- 4MP, 1/3" CMOS image sensor, low illuminance, high image definition
- Outputs 4MP (2560 × 1440) @25/30 fps, and supports max. 4MP (2688 × 1520) @20 fps
- H.265 codec, high compression rate, ultra-low bit rate
- Built-in IR LED, max. IR distance: 40 m
- ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments
- Image Rotation, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes
- Abnormality detection: Motion detection, video tampering, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, voltage detection
- Supports max. 256 GB SD card
- 12V DC/PoE power supply
- IP67, IK10 protection



Series Overview

With features of simple installation, easy operation, and high performance-cost ratio, Dahua Entry Series camera is applicable to small and medium-sized scenes, such as homes/residences, small-sized retail stores, and other small and medium-sized enterprises.

Functions

Smart H.265+ & Smart H.264+

With advanced scene-adaptive rate control algorithm, Dahua smart encoding technology realizes the higher encoding efficiency than H.265 and H.264, provides high-quality video, and reduces the cost of storage and transmission.

Motion Detection

When moving objects appear in the monitoring image, Dahua Motion Detection (General) technology triggers alarm or records.

WDR

With advanced Wide Dynamic Range (WDR) technology, Dahua network camera provides clear details in the environment of strong brightness contrast. The bright and dark area can get clear video even in high brightness environment or with backlight shadow.

Smart Illumination

Dahua Smart Illumination technology can display image in the environment of low illuminance or completely dark environment. According to the distance of the targets, the camera adjusts illuminations intensity automatically to display the details of the moving target.

Cyber Security

Dahua network cameras employ a series of security technologies, including security authentication and authorization, access control protocols, trusted protection, encrypted transmission and encrypted storage. These technologies improve the camera's defense against external cyber threats and prevent malicious programs from comprising the device.

Protection (IP67, IK10, wide voltage)

IP67: The camera passes a series of strict test on dust and soak. It has dust-proof function, and the enclosure can work normal after soaking in 1 m deep water for 30 minutes.

IK10: The enclosure can stand the punch more than 5 times from a 5 kg hammer falling from a height of 40 cm (Impact energy is 20J).

Wide voltage: The camera allows $\pm 30\%$ input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

Technical Specification

Camera

| | |
|----------------------------|---|
| Image Sensor | 1/3 "4Megapixel progressive CMOS |
| Max. Resolution | 2688 (H) × 1520 (V) |
| ROM | 128 MB |
| RAM | 128 MB |
| Scanning System | Progressive |
| Electronic Shutter Speed | Auto/Manual 1/3 s-1/100000 s |
| S/N Ratio | > 56 dB |
| Min. Illumination | 0.03 Lux @ F1.7 |
| Illumination Distance | 40 m (164.0 ft) |
| Illuminator On/Off Control | Auto/Manual |
| Illuminator Number | 2 (IR LED) |
| Pan/Tilt/Rotation Range | Pan: 0°-355° Tilt: 0°-75° Rotation: 0°-355° |

Lens

| | | | | | |
|----------------------|--|--------------------|-------------------|------------------|------------------|
| Lens Type | Motorized vari-focal | | | | |
| Mount Type | φ14 | | | | |
| Focal Length | 2.8 mm-12 mm | | | | |
| Max. Aperture | F1.7 | | | | |
| Field of View | Horizontal: 98°-31° Vertical: 55°-18° Diagonal: 116°-36° | | | | |
| Iris Type | Fixed | | | | |
| Close Focus Distance | 0.8 m (2.6 ft) | | | | |
| DORI Distance | Lens | Detect | Observe | Recognize | Identify |
| | W | 66.0 m (183.7 ft) | 26.4 m (73.5 ft) | 13.2 m (36.7 ft) | 6.6 m (18.4 ft) |
| | T | 200.0 m (656.2 ft) | 80.0 m (262.5 ft) | 40.0m (131.2 ft) | 20.0 m (65.6 ft) |

Video

| | |
|-------------------|--|
| Video Compression | H.265; H.264; H.264B; MJPEG(only supported by sub stream) |
| Smart Codec | Smart H.265+/ Smart H.264+ |
| Video Frame Rate | Main Stream: 2688 × 1520 (1 fps-20 fps) 2560 × 1440 (1 fps-25/30 fps) Sub Stream: 704 × 576 (1 fps-20/25 fps) 704 × 480 (1 fps-20/30 fps) |
| Stream Capability | 2 streams |
| Resolution | 2688 × 1520 (2688 × 1520); 2560 × 1440 (2560 × 1440); 2304 × 1296 (2304 × 1296); 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240) |

| | |
|-------------------------|--|
| Bit Rate Control | CBR; VBR |
| Video Bit Rate | H.264: 32 kbps-6144 kbps H.265: 12 kbps-6144 kbps |
| Day/Night | Auto(ICR)/Color/B/W |
| BLC | Yes |
| HLC | Yes |
| WDR | 120 dB |
| White Balance | Auto/natural/street lamp/outdoor/manual/regional custom |
| Gain Control | Manual/Auto |
| Noise Reduction | 3D NR |
| Motion Detection | OFF/ON (4 areas, rectangular) |
| Region of Interest(Rol) | Yes (4 areas) |
| Smart Illumination | Yes |
| Image Rotation | 0°/90°/180°/270° (Support 90°/270° with 2688 × 1520 resolution and lower.) |
| Mirror | Yes |
| Privacy Masking | 4 areas |

Alarm

| | |
|-------------|--|
| Alarm Event | Network disconnection; IP conflict; motion detection; video tampering; illegal access; voltage detection; security exception; defocus detection; |
|-------------|--|

Network

| | |
|---------------------|---|
| Network | RJ-45 (10/100 Base-T) |
| SDK and API | Yes |
| Cyber Security | Video encryption; firmware encryption; configuration encryption; Digest; WSSE; account lockout; security logs; IP/MAC filtering; generation and importing of X.509 certification; syslog; HTTPS; 802.1x; trusted boot; trusted execution; trusted upgrade |
| Protocol | IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; PPPoE; Bonjour |
| Interoperability | ONVIF (Profile S/Profile G/Profile T); CGI; Milestone; Genetec; P2P |
| User/Host | 20 |
| Storage | FTP; SFTP; Micro SD card (support max. 256 GB); NAS |
| Browser | IE Chrome Firefox |
| Management Software | Smart PSS; DSS; DMSS |
| Mobile Phone | IOS; Android |

Certification

| | |
|----------------|---|
| Certifications | CE-LVD: EN62368-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B |
|----------------|---|

Power

| | |
|--------------|----------------------|
| Power Supply | 12V DC/POE (802.3af) |
|--------------|----------------------|

| | |
|----------------------|--|
| Power Consumption | < 6.4W |
| Environment | |
| Operating Conditions | -30°C to +60°C (-22°F to +140°F)/less than≤95% |
| Storage Conditions | -40°C to +60°C (-40°F to +140°F) |
| Protection | IP67; IK10 |
| Structure | |
| Casing | Metal |
| Dimensions | 88.9 mm × Φ122 mm (3.5" × Φ4.8") |
| Net Weight | 0.46 kg (1.0 lb) |
| Gross Weight | 0.64 kg (1.4 lb) |



PFM321D
12V DC 1A Power
Adapter



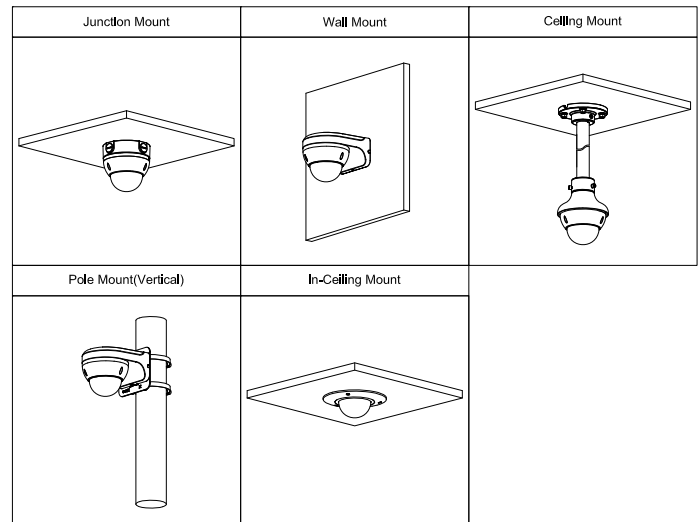
LR1002-1ET/1EC
Single-port long
reach ethernet over
coax extender



PFM900-E
Integrated Mount
tester



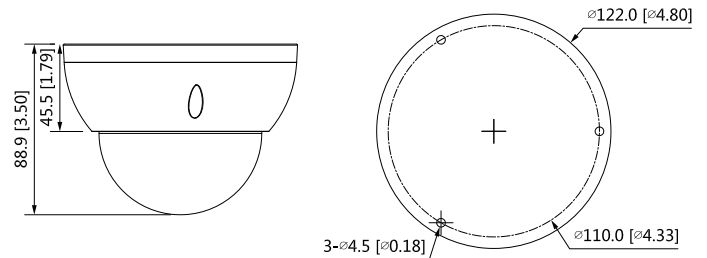
PFM114
TLC SD card



Ordering Information

| Type | Part Number | Description |
|------------------------|-------------------------|--|
| 4MP Camera | DH-IPC-HDBW1431RP-ZS-S4 | 4MP Entry IR Vari-focal Dome Network Camera, PAL |
| | DH-IPC-HDBW1431RN-ZS-S4 | 4MP Entry IR Vari-focal Dome Network Camera, NTSC |
| Accessories (optional) | PFA137 | Junction Box |
| | PFB203W | Wall Mount |
| | PFA152-E | Pole Mount |
| | PFA106 | Mount Adapter |
| | PFB220C | Ceiling Mount |
| | PFB200C | In-ceiling Mount |
| | PFM321D | 12V DC 1A Power Adapter |
| | LR1002-1ET/1EC | Single-port Long Reach Ethernet over Coax Extender |
| | PFM900-E | Integrated Mount Tester |
| PFM114 | TLC SD Card | |

Dimensions (mm[inch])



Accessories

Optional:



PFA137
Junction Box



PFB203W
Wall Mount



PFA152-E
Pole Mount



PFA106
Mount Adapter



PFB220C
Ceiling Mount



PFB200C
In-Ceiling Mount