# DH-IPC-HFW3549E-AS-LED

## 5MP Full-color Fixed-focal Warm LED Bullet WizSense Network Camera



**WizSense**

Launched by Dahua Technology, WizSense is a series of AI products and solutions that adopt independent AI chip and deep learning algorithm. It focuses on human and vehicle with high accuracy, enabling users to fast act on defined targets. Based on Dahua's advanced technologies, WizSense provides intelligent, simple and inclusive products and solutions.

- 5MP, 1/2.7" CMOS image sensor, low illuminance, high image definition
- Outputs max. 5MP (2592 × 1944) @20 fps, and supports 4MP (2688 × 1520) @25/30 fps
- H.265 codec, high compression rate, low bit rate
- Built-in warm light, max. illumination distance: 30 m
- ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments
- Rotation mode, WDR, 3D DNR, HLC, BLC, digital watermarking, applicable to various monitoring scenes
- Intelligent detection: Intrusion, tripwire (support the classification and accurate detection of vehicle and human)
- Abnormality detection: Motion detection, video tampering, scene changing, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, voltage detection
- Alarm: 1 in, 1 out; Audio: 1 in, 1 out; supports max. 256 G Micro SD card, built-in Mic
- 12V DC/PoE power supply, easy for installation
- IP67 protection
- SMD Plus

| 5Mp | Full-color | SMD Plus | Smart codec | WDR | IP67 |
|-----|-----------|----------|-------------|-----|------|

## System Overview

With advanced deep learning algorithm, Dahua WizSense 3 series network camera supports some intelligent functions, such as perimeter protection and smart motion detection. In addition, with full-color technology, it provides a better image effect in the condition of low illuminance.

## Functions

### Full-color

With high-performance sensor and large aperture lens, Dahua Full-color technology can display clear colorful image in the environment of ultra-low illuminance. With this photosensitivity technology, the camera can capture more available light, and display more colorful image details.

### SMD Plus

With intelligent algorithm, Dahua Smart Motion Detection technology can categorize the targets that trigger motion detection and filter the motion detection alarm triggered by non-concerned targets to realize effective and accurate alarm.

### 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.

### Perimeter Protection

With deep learning algorithm, Dahua Perimeter Protection technology can recognize human and vehicle accurately. In restricted area (such as pedestrian area and vehicle area), the false alarms of intelligent detection based on target type (such as tripwire, intrusion, fast moving, parking detection, loitering detection and gathering detection) are largely reduced.

### 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.

### Protection (IP67, wide voltage)

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

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

**Onvif**

## Technical Specification

### Camera

| | |
|---|---|
| Image Sensor | 1/2.7"5Megapixel progressive CMOS |
| Max. Resolution | 2592 (H) × 1944 (V) |
| ROM | 128 MB |
| RAM | 512 MB |
| Scanning System | Progressive |
| Electronic Shutter Speed | Auto/Manual 1/3 s–1/100,000 s |
| Min. Illumination | 0.003 Lux @F1.0 |
| S/N Ratio | >56 dB |
| Illumination Distance | 30 m (98.4 ft) (Warm light) |
| Illuminator On/Off Control | Auto/Manual |
| Illuminator Number | 1 (Warm light) |
| Pan/Tilt/Rotation Range | Pan: 0°–360°; Tilt: 0°–90°; Rotation: 0°–360° |

### Lens

| | |
|---|---|
| Lens Type | Fixed-focal |
| Mount Type | M12 |
| Focal Length | 2.8 mm; 3.6 mm |
| Max. Aperture | F1.0 |
| Field of View | 2.8 mm: Horizontal 98° × Vertical 71° × Diagonal 129°<br>3.6 mm: Horizontal 77° × Vertical 56° × Diagonal 101° |
| Iris Type | Fixed |
| Close Focus Distance | 2.8 mm: 1.2 m (3.9 ft)<br>3.6 mm: 2.4 m (7.9 ft) |

| | Lens | Detect | Observe | Recognize | Identify |
|---|---|---|---|---|---|
| DORI Distance | 2.8 mm | 56.0 m (183.7 ft) | 22.4 m (73.5 ft) | 11.2 m (36.7 ft) | 5.6 m (18.4 ft) |
| | 3.6 mm | 80.0 m (262.5 ft) | 32.0 m (105.0 ft) | 16.0 m (52.5 ft) | 8.0 m (26.3 ft) |

### Professional, Intelligent

| | |
|---|---|
| IVS (Perimeter Protection) | Tripwire; intrusion (support the classification and accurate detection of vehicle and human) |
| Intelligent Search | Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos. |

### Video

| | |
|---|---|
| Video Compression | H.265; H.264; H.264H; H.264B; MJPEG (only supported by the sub stream) |
| Smart Codec | Smart H.265+/ Smart H.264+ |
| Video Frame Rate | Main stream: 2592 × 1944 @1–20 fps<br>2688 × 1520 @1–25/30 fps<br>Sub stream: 704 × 576 @1–25 fps/704 × 480 @1–30 fps<br>Third stream: 1280 × 720@1–25/30 fps |
| Stream Capability | 3 streams |
| Resolution | 5M (2592 × 1944); 4M (2688 × 1520); 3M (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: 3 kbps–8192 kbps<br>H.265: 3 kbps–8192 kbps |
| Day/Night | Color/B/W |
| BLC | Yes |
| HLC | Yes |
| WDR | 120 dB |
| Scene Self-adaptation | Yes |
| White Balance | Auto/natural/street lamp/outdoor/manual/regional custom |
| Gain Control | Auto/Manual |
| Noise Reduction | 3D DNR |
| Motion Detection | OFF/ON (4 areas, rectangular) |
| Region of Interest (RoI) | Yes (4 areas) |
| Smart Illumination | Yes |
| Image Rotation | 0°/90°/180°/270° (Support 90°/270° with 1080p resolution and lower.) |
| Mirror | Yes |
| Privacy Masking | 4 areas |

### Audio

| | |
|---|---|
| Built-in MIC | Yes |
| Audio Compression | G.711a; G.711Mu; G726; AAC |

### Alarm

| | |
|---|---|
| Alarm Event | No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; scene changing; audio detection; voltage detection; external alarm; SMD |

### Network

| | |
|---|---|
| Network | RJ-45 (10/100 Base-T) |
| SDK and API | Yes |
| Protocol | IPv4; IPv6; HTTP; HTTPS; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; 802.1x; SNMP |
| Interoperability | ONVIF (Profile S/Profile G/Profile T); CGI; Milestone; Genetec |
| User/Host | 20 (Total bandwidth: 64 M) |
| Storage | FTP; SFTP; Micro SD card (support max. 256 G); Dahua Cloud; NAS |
| Browser | IE: IE8, IE9, IE11<br>Chrome<br>Firefox |
| Management Software | Smart PSS; DSS; DMSS |
| Mobile Phone | IOS; Android |

### Certification

| | |
|---|---|
| Certification | CE-LVD: EN62368-1<br>CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU<br>FCC: 47 CFR FCC Part 15, Subpart B<br>UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07 |

## Port

| | |
|---|---|
| Audio Input | 1 channel (RCA port) |
| Audio Output | 1 channel (RCA port) |
| Alarm Input | 1 channel in: 5mA 3V–5V DC |
| Alarm Output | 1 channel out: 300mA 12V DC |

## Power

| | |
|---|---|
| Power Supply | 12V DC/PoE |
| Power Consumption | < 8.4W |

## Environment

| | |
|---|---|
| Operating Conditions | -40°C to +60°C  (-40°F to +140°F)/less than 95% |
| Strorage Conditions | -40°C to +60°C  (-40°F to +140°F) |
| Ingress Protection | IP67 |

## Structure

| | |
|---|---|
| Casing | Metal |
| Dimensions | 192.7 mm × 70.5 mm × 66.4 mm (7.6" × 2.8"× 2.6") (L × W × H) |
| Net Weight | 590 g (1.3 lb) |
| Gross Weight | 780 g (1.7 lb) |

## Ordering Information

| Type | Part Number | Description |
|---|---|---|
| 5MP Camera | DH-IPC-HFW3549EP-AS-LED | 5MP Full-color Fixed-focal Warm LED Bullet WizSense Network Camera, PAL |
| | DH-IPC-HFW3549EN-AS-LED | 5MP Full-color Fixed-focal Warm LED Bullet WizSense Network Camera, NTSC |
| Accessories (optional) | PFA134 | Junction Box |
| | PFA152-E | Pole 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 |

## Accessories

**Optional:**



PFA134
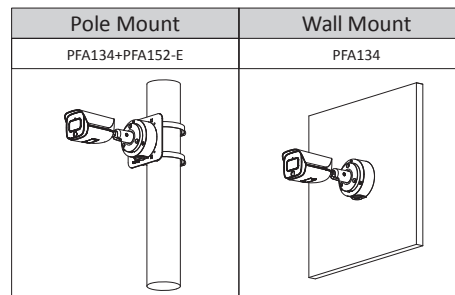Junction Box

PFA152-E
Pole Mount

PFM321D
DC12V1A Power Adapter

LR1002-1ET/1EC
Single-port Long Reach Ethernet over Coax Extender

PFM900-E
Integrated Mount Tester

PFM114
TLC SD Card

| Pole Mount | Wall Mount |
|---|---|
| PFA134+PFA152-E | PFA134 |



## Dimensions (mm[inch])