

# DH-IPC-HFW5849T1-ASE-LED

8MP Full-color Fixed-focal Warm LED Bullet WizMind Network Camera



Launched by Dahua Technology, Dahua WizMind is a full portfolio of solutions composed of project-oriented products including IPC, NVR, PTZ, XVR, Thermal and software platform which adopts industry-leading deep learning algorithms. Focusing on customer's requirements, WizMind provides precise, reliable and comprehensive AI solutions for verticals.

## Series Overview

With starlight solution and deep learning algorithm, Dahua WizMind 5 Series network camera has various intelligent functions, including face capture, perimeter protection and people counting, which greatly improve the accuracy of video analysis. The series camera supports dust-proof function, waterproof function and vandal-proof function, complying with the standards of IP67 and IK10 (Supported by some select models).

## Functions

### Face Detection

Dahua Face Detection technology can detect the face in the image. With deep learning algorithm, the technology supports detecting, tracking, capturing and selecting the best face image, and then outputs face snapshot.

### Face Attributes

With deep learning algorithm, the network camera can recognize face attributes, such as gender, age, expression, glasses, mouth mask, and beard.

### 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.

- 8-MP 1/1.2" CMOS image sensor, low illuminance, high image definition.
- Outputs max. 8 MP (3840 × 2160) @30 fps.
- Built-in warm illuminator, and the max. illumination distance is 50 m.
- ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments.
- Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes.
- Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card, built-in Mic and speaker.
- 12 VDC/PoE power supply.
- ePoE, IP67 protection.
- SMD 3.0.



### People Counting

With deep learning algorithm, Dahua People Counting technology can track and process moving human body targets to realize the accurate statistics of enter No., leave No., and In Area No. Working with management platform, it outputs yearly/monthly/daily reports to meet your requirements.

### 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.

### 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 compromising the device.

### 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 work normal after soaking in 1 m deep water for 30 minutes.

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

## Technical Specification

### Camera

|                            |                                                     |
|----------------------------|-----------------------------------------------------|
| Image Sensor               | 1/1.2" CMOS                                         |
| Max. Resolution            | 3840 (H) × 2160 (V)                                 |
| ROM                        | 128 MB                                              |
| RAM                        | 1 GB                                                |
| Scanning System            | Progressive                                         |
| Electronic Shutter Speed   | Auto/Manual 1/3 s–1/100,000 s                       |
| Min. Illumination          | 0.0005Lux@F1.0                                      |
| S/N Ratio                  | >56 dB                                              |
| Illumination Distance      | 50 m (164.04 ft)                                    |
| Illuminator On/Off Control | Auto/Manual                                         |
| Illuminator Number         | 4 (Warm light)                                      |
| Pan/Tilt/Rotation Range    | Pan: 0°–360°<br>Tilt: -20°–90°<br>Rotation: 0°–360° |

### Lens

|                      |                                                                                                                 |                     |                    |                   |                   |
|----------------------|-----------------------------------------------------------------------------------------------------------------|---------------------|--------------------|-------------------|-------------------|
| Lens Type            | Fixed-focal                                                                                                     |                     |                    |                   |                   |
| Mount Type           | M22                                                                                                             |                     |                    |                   |                   |
| Focal Length         | 2.8 mm; 3.6 mm                                                                                                  |                     |                    |                   |                   |
| Max. Aperture        | F1.0                                                                                                            |                     |                    |                   |                   |
| Field of View        | 2.8 mm: Horizontal 112° × Vertical 61° × Diagonal 131°<br>3.6 mm: Horizontal 91° × Vertical 50° × Diagonal 106° |                     |                    |                   |                   |
| Iris Type            | Fixed                                                                                                           |                     |                    |                   |                   |
| Close Focus Distance | 2.8 mm: 3.1m (10.2 ft)<br>3.6 mm: 5.4m (17.7 ft)                                                                |                     |                    |                   |                   |
| DORI Distance        | Lens                                                                                                            | Detect              | Observe            | Recognize         | Identify          |
|                      | 2.8 mm                                                                                                          | 82.8 m (271.65 ft)  | 33.1 m (108.60 ft) | 16.6 m (54.46 ft) | 8.3 m (27.23 ft)  |
|                      | 3.6 mm                                                                                                          | 120.4 m (395.01 ft) | 48.2 m (158.14 ft) | 24.1 m (79.10 ft) | 12.0 m (39.37 ft) |

### Smart event

|          |                                  |
|----------|----------------------------------|
| IVS      | Abandoned object; missing object |
| Heat Map | Yes                              |

### Professional, intelligent

|                            |                                                                                                                                                                                                                                                                  |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IVS (Perimeter Protection) | Tripwire; intrusion; fast moving (the three functions support the classification and accurate detection of vehicle and human); loitering detection; people gathering; parking detection                                                                          |
| Face Detection             | Face detection; track; optimization; snapshot; face enhancement; face exposure; face matting setting: face, single inch photo; three snapshot methods: real-time snapshot, optimization snapshot, quality priority; face angle filter; optimization time setting |

|                    |                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| People Counting    | Support the counting of enter number, leave number and pass number, and displaying and outputting yearly/ monthly/weekly/daily reports<br>Support the counting of number in area, and 4 rules configuration<br>Count number of people or stay time and link alarm<br>Support queue management, and 4 rules configuration.<br>Count number of people or stay time and link alarm |
| 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: 3840 × 2160 @ (1 fps–25/30 fps)<br>Sub stream: D1 (1 fps–25/30 fps)<br>Third stream: 1080p (1 fps–25/30 fps)<br>*The values above are the max. frame rates of each stream; for multiple streams, the values will be subjected to the total encoding capacity. |
| Stream Capability        | 3 streams                                                                                                                                                                                                                                                                  |
| Resolution               | 3840 × 2160; 3072 × 2048; 3072 × 1728; 2592 × 1944; 2688 × 1520; 2048 × 1536; 2304 × 1296; 1080p (1920 × 1080); 1.3 M (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–20480 kbps<br>H.265: 3 kbps–20480 kbps                                                                                                                                                                                                                       |
| Day/Night                | Color/B/W                                                                                                                                                                                                                                                                  |
| BLC                      | Yes                                                                                                                                                                                                                                                                        |
| HLC                      | Yes                                                                                                                                                                                                                                                                        |
| WDR                      | 140 dB                                                                                                                                                                                                                                                                     |
| Defog                    | Yes                                                                                                                                                                                                                                                                        |
| White Balance            | Auto/natural/street lamp/outdoor/manual/regional custom                                                                                                                                                                                                                    |
| Gain Control             | Auto/Manual                                                                                                                                                                                                                                                                |
| Noise Reduction          | 3D NR                                                                                                                                                                                                                                                                      |
| Motion Detection         | OFF/ON (4 areas, rectangular)                                                                                                                                                                                                                                              |
| Region of Interest (RoI) | Yes (4 areas)                                                                                                                                                                                                                                                              |
| Image Rotation           | 0°/90°/180°/270° (Support 90°/270° with 4M resolution and lower)                                                                                                                                                                                                           |
| Mirror                   | Yes                                                                                                                                                                                                                                                                        |
| Privacy Masking          | 8 areas                                                                                                                                                                                                                                                                    |

### Audio

|                   |                                    |
|-------------------|------------------------------------|
| Built-in MIC      | Yes                                |
| Audio Compression | PCM; G.711a; G.711Mu; G.726; G.723 |

## Alarm

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Alarm Event | No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; defocus detection; scene changing; intrusion; tripwire; abandoned object; missing object; fast moving; parking detection; loitering detection; people gathering; input abnormal detection; intensity change detection; people counting; face detection; people counting in area; stay alarm; people No. exception detection; queue management |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Network

|                     |                                                                                                                                                                                                    |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Network             | RJ-45 (10/100 Base-T)                                                                                                                                                                              |
| SDK and API         | Yes                                                                                                                                                                                                |
| Network 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                            |
| Cyber Security      | Video encryption; configuration encryption; Digest; WSSE; account lockout; security logs; generation and importing of X.509 certification; HTTPS; trusted boot; trusted execution; trusted upgrade |
| Interoperability    | ONVIF( Profile S/Profile G/Profile T); CGI; Milestone; P2P                                                                                                                                         |
| User/Host           | 20 (Total bandwidth: 80 M)                                                                                                                                                                         |
| Storage             | FTP; SFTP; Micro SD card (support max. 256 G); NAS                                                                                                                                                 |
| Browser             | IE: IE8 and later<br>Chrome<br>Firefox                                                                                                                                                             |
| Management Software | Smart PSS; DSS; DMSS                                                                                                                                                                               |
| Mobile Client       | IOS; Android                                                                                                                                                                                       |

## Certification

|                |                                                                                                                                                                        |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Certifications | 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–5 VDC  |
| Alarm Output | 1 channel out: 300mA 12 VDC |

## Power

|                   |                                                                                                                    |
|-------------------|--------------------------------------------------------------------------------------------------------------------|
| Power Supply      | 12 VDC (±30%)/PoE (802.3af)/ePoE                                                                                   |
| Power Consumption | Basic: 5.3 W (12 VDC); 6.2 W (PoE)<br>Max. (H.265 + 3 streams + intelligence + LED): 11.1 W (12 VDC); 12.1 W (PoE) |

## Environment

|                      |                                                       |
|----------------------|-------------------------------------------------------|
| Operating Conditions | –40 °C to +60 °C (–40 °F to +140 °F)/Less than 95% RH |
| Storage Conditions   | –40 °C to +60 °C (–40 °F to +140 °F)                  |
| Protection Grade     | IP67                                                  |

## Structure

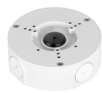
|              |                                                                |
|--------------|----------------------------------------------------------------|
| Casing       | Metal                                                          |
| Dimensions   | 288.4 mm × 94.4 mm × 84.7 mm (11.4" × 3.7" × 3.3") (L × W × H) |
| Net Weight   | 1.15 kg (2.5 lb)                                               |
| Gross Weight | 1.38 kg (3.0 lb)                                               |

## Ordering Information

| Type                   | Part Number                     | Description                                                            |
|------------------------|---------------------------------|------------------------------------------------------------------------|
| 8MP Camera             | DH-IPC-HFW5849T1P-ASE-LED-0280B | 8MP Full-color Fixed-focal Warm LED Bullet WizMind Network Camera, PAL |
|                        | DH-IPC-HFW5849T1P-ASE-LED-0360B | 8MP Full-color Fixed-focal Warm LED Bullet WizMind Network Camera, PAL |
|                        | IPC-HFW5849T1P-ASE-LED-0280B    | 8MP Full-color Fixed-focal Warm LED Bullet WizMind Network Camera, PAL |
|                        | IPC-HFW5849T1P-ASE-LED-0360B    | 8MP Full-color Fixed-focal Warm LED Bullet WizMind Network Camera, PAL |
| Accessories (Optional) | PFA130-E                        | Junction Box                                                           |
|                        | PFA152-E                        | Pole Mount                                                             |
|                        | PFM321D                         | 12 VDC 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:



PFA130-E  
Junction Box



PFA152-E  
Pole Mount



PFM321D  
12 VDC 1A Power  
Adapter



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

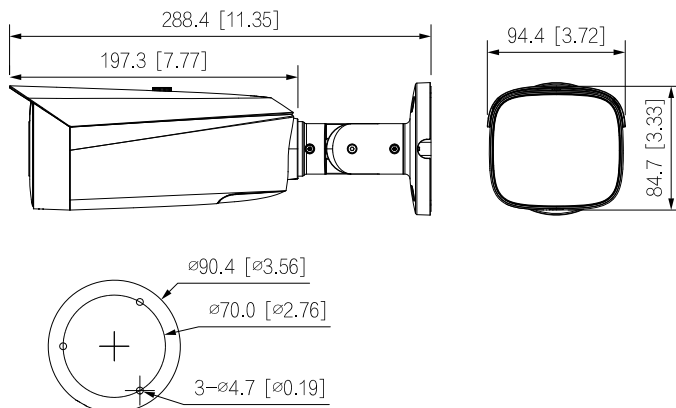


PFM900-E  
Integrated Mount  
Tester



PFM114  
TLC SD Card

## Dimensions (mm/inch)



| Ceiling Mount | Wall Mount | Pole Mount(Vertical) |
|---------------|------------|----------------------|
|               |            |                      |