# DH-IPC-HFW5241T-AS-LED

2MP WDR Bullet AI Network Camera

- 1/2.8” 2Megapixel progressive scan STARVIS™ CMOS
- H.265 & H.264 triple-stream encoding
- 25/30 fps@1080P (1920 × 1080)
- WDR (120 dB), Day/Night (Electronic), 3D DNR, AWB, AGC, BLC
- Multiple network monitoring: Web viewer, CMS (DSS/PSS) & DMSS
- 2.8 mm fixed lens (3.6 mm, 6.0 mm, 8.0 mm optional)
- 1/1 Alarm in/out, 1/1 audio in/out
- Max. LEDs Length 25 m
- Micro SD memory, IP67,IK10

## System Overview

Pro AI series contains Face Detection, Perimeter Protection and People Counting functions.Powered by deep-learning Artificial Intelligence algorithms, significantly improved accuracy. Meanwhile, the series features starlight and smart IR technology. This series fully protected from dust and water, certified to IP67 standard.

## Functions

### Face Detection

Face Detection is a software application that automatically captures faces from within a digital image or a video frame from a video source. Dahua cameras use advanced deep learning algorithms and are trained by a large number of face data sources, enabling the camera to locate faces quickly and accurately from the video source and capture facial images.

### Perimeter Protection

Dahua’s Perimeter Protection functions significantly improved accuracy. Perimeter Protection reduces false alarms and decreases pixel count requirements for object detection. Perimeter Protection features custom tripwires based on object type for automation in limited access areas such as pedestrian or vehicle-only zones. This combination of advanced AI analytics and real-time alerts to a desktop or to a mobile client reduces system requirements and resources resulting in greater surveillance system efficiency.

### People Counting

People Counting function uses advanced image processing technology to capture depth information from within images. The camera pairs this information with deep learning algorithms to analyze and detect human bodies and track target objects in real time. The camera provides statistics for separate individuals’ entrance and exit with up to 95% counting accuracy.

### Full-color Starlight

The camera adopts F1.6 large aperture lens and 1/2.8" high performance sensor. With higher amount of absorbed light and advanced image processing algorithm, the camera presents an impressive lowlight performance with an exceptional balance between noise reduction and the blur of moving object.

### Warm Supplemental lights

With two warm supplemental LED lights, the camera is able to provide a colorful and vivid image even in total darkness. It also provides visible By default, the camera is set to smart light mode, in which the camera can automatically adjust the exposure time and light sensitivity simultaneously to avoid overexposureing of the objects in the image center. Also, the sensitivity and intensity of the LED lights can be remotely controlled by OSD menu.

### Protection(IP67, IK10, wide voltage)

The camera allows for ±30% input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 6KV lightning rating provides effective protection for both the camera and its structure against lightning. Subjected and certified to rigorous dust and immersion tests (IP67) and impact tests (IK10), the camera is the choice for installation in even the most unforgiving environments.

## Technical Specification

### Camera

| | |
|---|---|
| Image Sensor | 1/2.8" 2Megapixel progressive scan STARVIS™ CMOS |
| Effective Pixels | 1920 (H) × 1080 (V) |
| RAM/ROM | 512 MB/128 MB |
| Scanning System | Progressive |
| Electronic Shutter Speed | Auto/Manual, 1/3 s–1/100000 s |
| Minimum Illumination | 0.002 Lux@F1.6 |
| LED Distance | Distance up to 25 m (82 ft) |
| LED On/Off Control | Auto/Manual |
| LEDs | 2 |

### Lens

| | |
|---|---|
| Lens Type | Fixed-focal |
| Mount Type | Board-in |
| Focal Length | 2.8 mm, 3.6 mm, 6.0 mm, 8.0 mm |
| Max. Aperture | F1.6 |
| Angle of View | H: 106°, V: 57°/H: 87°, V: 46°/H: 53°, V: 30°/H: 41°, V: 23° |
| Aperture Type | Fixed |
| Close Focus Distance | 0.6 m (1.97 ft)/1.2 m(3.94 ft)/2.5 m (8.20 ft)/4 m (13.12 ft) |

| | Lens | Detect | Observe | Recognize | Identify |
|---|---|---|---|---|---|
| DORI Distance | 2.8mm | 39m(128ft) | 15m(49ft) | 8m(26ft) | 4m(13ft) |
| | 3.6mm | 55m(180ft) | 22m(72ft) | 11m(36ft) | 6m(20ft) |
| | 6mm | 83m(272ft) | 33m(108ft) | 17m(56ft) | 8m(26ft) |
| | 8mm | 110m(361ft) | 44m(144ft) | 22m(72ft) | 11m(36ft) |

### Pan/Tilt/Rotation

| | |
|---|---|
| Pan/Tilt/Rotation Range | Pan: 0°–360°; Tilt: 0°–90°; Rotation: 0°–360° |

### Artificial Intelligence

| | |
|---|---|
| Face Detection | Support face image capture |
| Perimeter Protection | Tripwire, intrusion (Recognition of vehicle and people), fast moving, loitering detection, parking detection and people gathering |
| People Counting | Support Line crossing/Region/Queueing people counting; Support 4 accesses independent detection, 4 areas independent detection |

### General Intelligence

| | |
|---|---|
| Event Trigger | Motion detection, Video tampering , Scene changing, Network disconnection , IP address conflict, Illegal Access, Storage anomaly |
| General Intelligence | Object Abandoned/Missing |
| Heat Map | Yes |

### Video

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|---|---|
| Compression | H.265,H.264,H.264B,H.264H, MJPEG (sub stream) |
| Smart Codec | Yes |
| Streaming Capability | 3 Streams |
| Resolution | 1080P (1920 × 1080)/1.3M (1280 × 960)/720P (1280 × 720)/D1 (704 × 576/704 × 480)/VGA (640 × 480)/ CIF (352 × 288/352 × 240) |
| Frame Rate | Main Stream: 1080P (1 fps–25/30 fps)<br>Sub Stream: D1 (1 fps–25/30 fps)<br>Third Stream: 1080P (1 fps–6 fps) |
| Bit Rate Control | CBR/VBR |
| Bit Rate | H.264: 32 Kbps–8192 Kbps<br>H.265: 19 Kbps–7424 Kbps |
| Day/Night | Day/Night: Electronic Auto/Color/B/W |
| BLC Mode | BLC/HLC/WDR (120 dB) |
| White Balance | Auto/Natural/Street Lamp/Outdoor/Manual |
| Gain Control | Auto/Manual |
| Noise Reduction | 3D DNR |
| Motion Detection | Off/On (4 Zone, Rectangle) |
| Region of Interest | Off/On (4 Zone) |
| Electronic Image Stabilization (EIS) | N/A |
| Smart IR | Yes |
| Defog | Yes |
| Flip | 0°/90°/180°/270° |
| Mirror | Off/On |
| Privacy Masking | Off/On (4 Area, Rectangle) |

### Audio

| | |
|---|---|
| Compression | G.711a, G.711Mu, G.726, AAC, G.723 |

### Network

| | |
|---|---|
| Ethernet | RJ-45 (10/100 Base-T) |
| 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;PPPoE;802.1x;SNMP |
| Interoperability | ONVIF (Profile S/Profile G/Profile T), CGI, Milstone, Genetec, P2P |
| Streaming Method | Unicast/Multicast |
| Max. User Access | 20 Users |
| Edge Storage | NAS;FTP;SFTP;Micro SD card 256 GB |
| Web Viewer | IE (versions newer than IE8), Chrome, Firefox, Safari (versions newer than Safari 12) |
| Management Software | Smart PSS, DSS, DMSS |
| Smart Phone | iOS, Android |

### Certifications

| | |
|---|---|
| Certifications | CE-LVD: EN60950-1<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 |

### Interface

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|---|---|
| Audio Interface | 1/1 channel In/Out |
| RS485 | N/A |
| Alarm | 1 channel In: 5mA 5V DC<br>1 channel Out: 300mA 12V DC |

### Electrical

| | |
|---|---|
| Power Supply | DC 12V (±30%), PoE (802.3af) (Class 0) |
| Power Consumption | <7W |

### Environmental

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|---|---|
| Operating Conditions | -30° C to +60° C (-22° F to +140° F)/Less than 95% RH |
| Storage Conditions | -30° C to +60° C (-22° F to +140° F) |
| Ingress Protection | IP67 |
| Vandal Resistance | IK10 |

### Construction

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|---|---|
| Casing | Metal |
| Dimensions | 244.1 mm × 79.0 mm × 75.9 mm (9.61" × 3.11" × 2.99") |
| Net Weight | 0.815 kg (1.80 lb) |
| Gross Weight | 1.08 kg (2.38 lb) |

## Ordering Information

| Type | Part Number | Description |
|---|---|---|
| 2MP camera | DH-IPC-HFW5241TP-AS-LED | 2MP WDR Bullet AI Network Camera, WDR, PAL |
| | DH-IPC-HFW5241TN-AS-LED | 2MP WDR Bullet AI Network Camera, WDR, NTSC |
| | IPC-HFW5241TP-AS-LED | 2MP WDR Bullet AI Network Camera, WDR, PAL |
| | IPC-HFW5241TN-AS-LED | 2MP WDR Bullet AI Network Camera, WDR, NTSC |
| Accessories (optional) | PFA130-E | Junction box |
| | PFA152-E | Pole Mount |
| | PFA151 | Corner Mount |

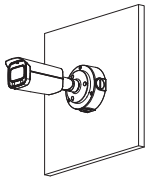
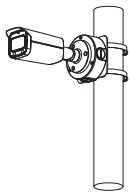
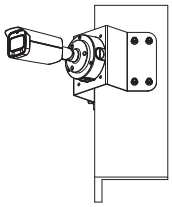
## Accessories

### Optional:

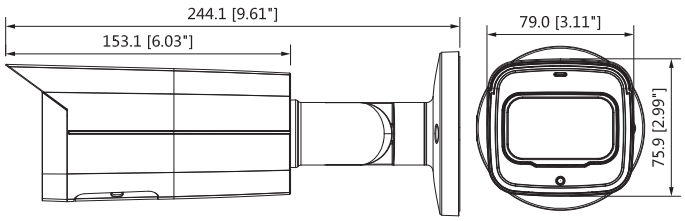
PFA130-E
Junction box

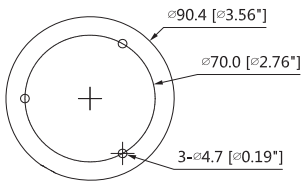
PFA152-E
Pole Mount

PFA151
Corner Mount

| Junction Mount | Pole Mount | Corner Mount |
|---|---|---|
| PFA130-E | PFA130-E+ PFA152-E | PFA130-E + PFA151 |
|  |  |  |

## Dimensions (mm[inch])

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