

# DH-IPC-HFW5842H-ZHE

## 8MP Pro AI IR Bullet Network Camera



- 8MP, 1/1.8" CMOS image sensor, low illuminance, high image definition
- Max outputs 8MP (3840×2160) @25fps/30fps
- H.264&H.265 coding, high compression ration
- Wide dynamic, day/night, 3D noise reduction, AWB, HLC, BLC
- ROI, SVC, SMART H.264/H.265, flexible coding, applicable to various bandwidth and storage environments
- With deep learning algorithm, it supports people counting, face detection, perimeter protection.
- 24V AC/PoE/12V DC power support
- Three streams for two-channel HD video
- IP67, IK10 protection grade



### System Overview

With starlight solution and deep learning algorithm, Dahua Pro AI series network camera has various intelligent functions, including face detection, 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.

### 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.

#### 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/weekly/daily reports to meet your requirements.

#### Smart Codec

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.

#### ePoE

Dahua ePoE technology provides 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.

#### 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.

| Technical Specification   |      |                                                                                                                                                                                              |                    |                    |                    |
|---------------------------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------|--------------------|
| Camera                    |      |                                                                                                                                                                                              |                    |                    |                    |
| Image Sensor              |      | 1/1.8”8Megapixel progressive CMOS                                                                                                                                                            |                    |                    |                    |
| Effective Pixels          |      | 3840 (H) × 2160 (V)                                                                                                                                                                          |                    |                    |                    |
| ROM                       |      | 4 GB                                                                                                                                                                                         |                    |                    |                    |
| RAM                       |      | 2 GB                                                                                                                                                                                         |                    |                    |                    |
| Scanning System           |      | Progressive                                                                                                                                                                                  |                    |                    |                    |
| Electronic Shutter Speed  |      | Auto/Manual 1/3 s–1/100000 s                                                                                                                                                                 |                    |                    |                    |
| Min. Illumination         |      | 0.003 Lux@F1.2                                                                                                                                                                               |                    |                    |                    |
| IR Distance               |      | Distance up to 60m (196.85 ft)                                                                                                                                                               |                    |                    |                    |
| IR On/Off Control         |      | Auto/Manual                                                                                                                                                                                  |                    |                    |                    |
| IR LEDs Number            |      | 4 (IR LEDs)                                                                                                                                                                                  |                    |                    |                    |
| Pan/Tilt/Rotation Range   |      | Pan: 0°–360°<br>Tilt: 0°–90°<br>Rotation: 0°–360°                                                                                                                                            |                    |                    |                    |
| Lens                      |      |                                                                                                                                                                                              |                    |                    |                    |
| Lens Type                 |      | Motorized vari-focal                                                                                                                                                                         |                    |                    |                    |
| Mount Type                |      | Module interface                                                                                                                                                                             |                    |                    |                    |
| Focal Length              |      | 2.7–12 mm                                                                                                                                                                                    |                    |                    |                    |
| Max. Aperture             |      | F1.2                                                                                                                                                                                         |                    |                    |                    |
| Field of View             |      | Horizontal: 114°(W)–47°(T)<br>Vertical: 59°(W)–27°(T)<br>Diagonal: 141° (W–55°(T)                                                                                                            |                    |                    |                    |
| Iris Type                 |      | Auto aperture                                                                                                                                                                                |                    |                    |                    |
| Close Focus Distance      |      | W: 1 M (3.29ft)<br>T: 2.5 M (8.20ft)                                                                                                                                                         |                    |                    |                    |
| DORI Distance             | Lens | Detect                                                                                                                                                                                       | Observe            | Recognize          | Identify           |
|                           | W    | 87.2 m (286.09 ft)                                                                                                                                                                           | 34.9 m (114.50 ft) | 17.4 m (57.09 ft)  | 8.7 m (28.54 ft)   |
|                           | T    | 186.7 m (612.53 ft)                                                                                                                                                                          | 74.7 m (245.07 ft) | 37.3 m (122.38 ft) | 18.6 m (131.23 ft) |
| Smart event               |      |                                                                                                                                                                                              |                    |                    |                    |
| General IVS Analytics     |      | Abandoned object, moving object                                                                                                                                                              |                    |                    |                    |
| Professional, intelligent |      |                                                                                                                                                                                              |                    |                    |                    |
| Perimeter Protection      |      | Tripwire, intrusion, fast moving (the three functions support the classification and accurate detection of vehicle and human), parking detection, loitering detection, and people gathering. |                    |                    |                    |
| Face Detection            |      | Support face image capture                                                                                                                                                                   |                    |                    |                    |
| Face Attributes           |      | Support 6 kinds of face attributes extraction: Age, Gender, Expression (Jolly, Surprise, Normal, Rage, Sad, Disgusted, Confused, Frightened), Glasses, Mouth Mask, Moustache & Beard         |                    |                    |                    |
| People Counting           |      | People counting (count the entry number, exit number and pass number), display and output daily/monthly/annual statistics, No. in area                                                       |                    |                    |                    |
| 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                                                                                                                                                                                                                |
| Smart Codec                         | Yes                                                                                                                                                                                                                                              |
| Video Frame Rate                    | Main Stream: 3840 × 2160 (1–25/30 fps)<br>Sub Stream 1: 704 × 576 (1–25/30 fps)<br>Sub Stream 2: 1920 × 1080 (1–25/30 fps)                                                                                                                       |
| Stream Capability                   | 3 streams                                                                                                                                                                                                                                        |
| Resolution                          | 8M (3840 × 2160), 6M (3072 × 2048/3072 × 1728), 5M (2592 × 1944), 4M (2688 × 1520), 3M (2048 × 1536/2304 × 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-16384 kbps<br>H.265: 12 kbps-16384 kbps                                                                                                                                                                                           |
| Day/Night                           | ICR switch                                                                                                                                                                                                                                       |
| BLC                                 | Yes                                                                                                                                                                                                                                              |
| WDR                                 | 120 dB                                                                                                                                                                                                                                           |
| White Balance                       | Auto/natural/street lamp/outdoor/manual/regional Custom                                                                                                                                                                                          |
| Gain Control                        | Auto/Manual                                                                                                                                                                                                                                      |
| Noise Reduction                     | 3DNR                                                                                                                                                                                                                                             |
| Motion Detection                    | OFF/ON (4 areas, rectangular)                                                                                                                                                                                                                    |
| Region of Interest(Rol)             | Yes (4 areas)                                                                                                                                                                                                                                    |
| Electronic Image Stabilization(EIS) | Yes                                                                                                                                                                                                                                              |
| Smart IR                            | Yes                                                                                                                                                                                                                                              |
| Defog                               | Yes                                                                                                                                                                                                                                              |
| Image Rotation                      | 0°/90°/180°/270° (Support 90°/270° with 1080p resolution or below.)                                                                                                                                                                              |
| Mirror                              | Yes                                                                                                                                                                                                                                              |
| Privacy Masking                     | 4 areas                                                                                                                                                                                                                                          |
| Audio                               |                                                                                                                                                                                                                                                  |
| Audio Compression                   | G.711a; G.711Mu; G726; AAC; G.723                                                                                                                                                                                                                |
| Network                             |                                                                                                                                                                                                                                                  |
| Network                             | RJ-45 (10/100 Base-T)                                                                                                                                                                                                                            |
| Protocol                            | HTTP; Https; 8021.x; TCP; ARP; RTSP; RTP; UDP; RTCP; SMTP; FTP; DHCP; DNS; DDNS; PPPoE; IPv4/v6; SNMP; QoS; UPnP; NTP; SFTP; RTMP; Genetec;Bonjour                                                                                               |
| Interoperability                    | ONVIF (Profile S/Profile G/Profile T); CGI; P2P                                                                                                                                                                                                  |
| Scene self-adaptation               | Yes                                                                                                                                                                                                                                              |
| User/Host                           | 20 (Total bandwidth: 160 M.)                                                                                                                                                                                                                     |
| Edge Storage                        | FTP; Micro SD card (256 G); NAS; SFTP                                                                                                                                                                                                            |
| Browser                             | IE: Versions later than IE9<br>Chrome: Versions later than Chrome 42    Firefox: Versions later than Firefox 48.0.2                                                                                                                              |

|                     |                      |
|---------------------|----------------------|
| Management Software | Smart PSS; DSS; DMSS |
| Mobile Phone        | IOS, Android         |

### Certification

|                |                                                                                                                                                                        |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Port

|              |                                           |
|--------------|-------------------------------------------|
| RS-485       | 1 (Bit rate: 1200 bps-115200 bps)         |
| Audio Input  | Audio Interface: 1/1 channel In/Out       |
| Audio Output |                                           |
| Alarm Input  | 3 channel In: 5mA 5V DC                   |
| Alarm Output | 2 channel Out: 1000mA 30V DC/500mA 50V AC |

### Power

|                   |                   |
|-------------------|-------------------|
| Power Supply      | 12V DC/24V AC/POE |
| Power Consumption | <17.3W            |

### Environment

|                       |                                  |
|-----------------------|----------------------------------|
| Operating Temperature | -40°C to +60°C (-40°F to +140°F) |
| Operating Humidity    | ≤95%                             |
| Storage Temperature   | -40°C to +60°C (-40°F to +140°F) |
| Ingress Protection    | IP67, IK10                       |

### Structure

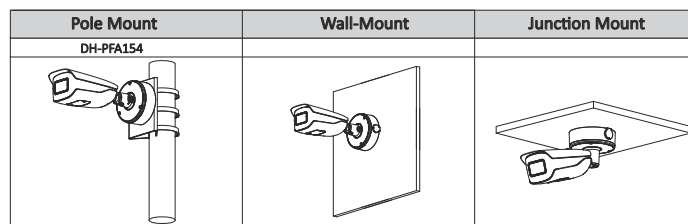
|              |                                                                    |
|--------------|--------------------------------------------------------------------|
| Casing       | Metal + Plastic                                                    |
| Dimensions   | 340.1 mm × 108.5 mm × 92.9 mm (13.39" × 4.27" × 3.66") (L × W × H) |
| Net Weight   | 1.6 kg (3.53 lb)                                                   |
| Gross Weight | 2.4 kg (5.29 lb)                                                   |

### Accessories

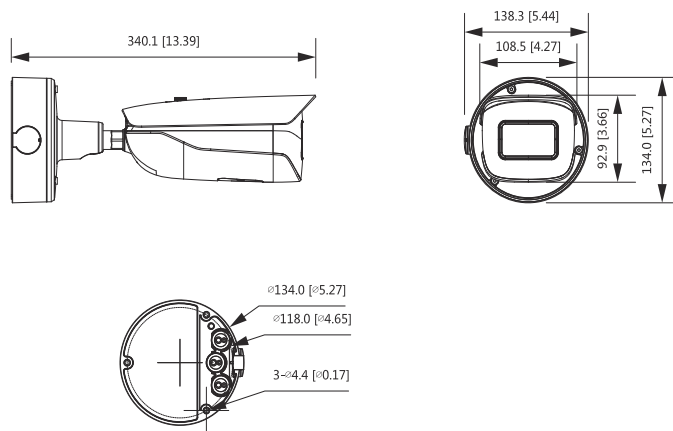
#### Optional:



PFA154



### Dimensions (mm/inch)



### Ordering Information

| Type                   | Part Number                          | Description                     |
|------------------------|--------------------------------------|---------------------------------|
| 8MP Camera             | DH-IPC-HFW5842HP-ZHE-2712F-DC12AC24V | 8MP AI IR Bullet Network Camera |
|                        | DH-IPC-HFW5842HN-ZHE-2712F-DC12AC24V | 8MP AI IR Bullet Network Camera |
|                        | IPC-HFW5842HP-ZHE-2712F-DC12AC24V    | 8MP AI IR Bullet Network Camera |
|                        | IPC-HFW5842HN-ZHE-2712F-DC12AC24V    | 8MP AI IR Bullet Network Camera |
| Accessories (optional) | PFA154                               | Pole Mount                      |