# DH-IPC-HF7442F-FR

## 4MP AI BOX Network Camera

· 4MP, 1/1.8" CMOS image sensor, low illuminance, high image definition

· Max outputs 4MP (2688×1520) @50 fps/60 fps

· 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 recogni
tion, perimeter protection etc

· 24V AC/PoE/12V DC power support

· Five streams for three-channel HD video

| Starlight | People Counting | Face Recognition | Video Metadata | Privacy Protection |

## System Overview

With advanced deep learning algorithm, Dahua Ultra AI series network camera supports various intelligent functions and satisfies the requirements in different scenes. The camera can acurately detect person, vehicle, and non-motor vehicle, face, and liveness. This series camera has ultra starlight night version effect, and works with ultra-low stream.

## Functions

### 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.

### Video Metadata

With deep learning algorithm, Dahua Video Metadata technology can detect, track, capture vehicle, non-motor vehicle and people, and select the best images, and extract attributes.

### 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.

### Face Recognition

Dahua Face Recognition technology extracts the features of captured faces and compares them with that in face database to recognize the person identity.

### 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.

### Privacy Protection

Dahua Privacy Protection technology can mask the detected face and human body to protect the privacy of some special targets.
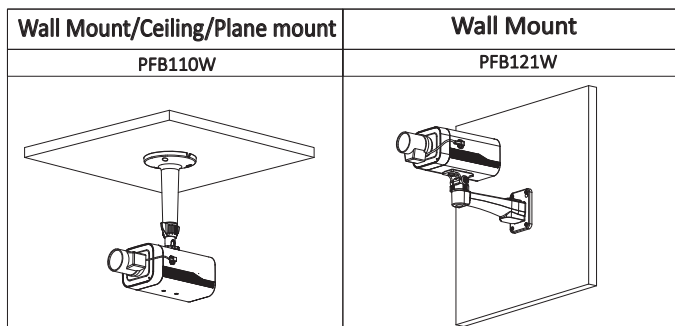
## Technical Specification

### Camera

| | |
|---|---|
| Image Sensor | 1/1.8" 4Megapixel progressive CMOS |
| Effective Pixels | 2688 (H) × 1520 (V) |
| ROM | 16 GB |
| RAM | 2 GB |
| Scanning System | Progressive |
| Electronic Shutter Speed | Auto/Manual 1/3 s–1/100000 s |
| Min. Illumination | 0.001 Lux@F1.5 |

### Lens

| | |
|---|---|
| Lens Type | Manual vari-focal |
| Mount Type | C/CS |

### 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 Recognition | Face recognition, track, priority, snapshot, face enhancement, face exposure, face attribute extract, 6 attributes and 8 expressions: Gender, age, glasses, expressions (anger, sadness, disgust, fear, surprise, calm, happiness and confusion), mask, beard<br>Face matting setting: face, single inch photo<br>Two snapshot strategies: priority snapshot, recognition<br>Face angle filter<br>Priority time setting<br>Management of 5 group face libraries<br>Single person register and person register in batch<br>Face recognition and similarity setting<br>Max supports face contrast in face library with 200,000 faces |
| Video Metadata | Support human body, human face, motor vehicle and non-motor vehicle image capture and attributes extraction. |
| 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: 2688 × 1520 (1–50/60 fps)<br>sub stream 1: 704 × 576 (1–25/30 fps)<br>sub stream 2: 1920 × 1080 (1–25/30 fps)<br>sub stream 3: 1920 × 1080 (1–25/30 fps)<br>sub stream 4: 704 × 576 (1–25/30 fps) |
| Stream Capability | 5 streams |
| Resolution | 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 x 288/352 x 240) |

| | |
|---|---|
| Bit Rate Control | CBR/VBR |
| Video Bit Rate | H.264: 32–10240 kbps<br>H.265: 12–10240 kbps |
| Day/Night | ICR switch |
| BLC | Yes |
| WDR | 140 dB |
| 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) |
| Electronic Image Stabilization(EIS) | Yes |
| Smart IR | Yes |
| Defog | Yes |
| Image Rotation | 0°/90°/180°/270° (Supports 90°/270° with 1080p resolution or below.) |
| Mirror | Yes |
| Privacy Masking | 4 areas |

### Audio

| | |
|---|---|
| Audio Compression | G.711a; G.711Mu; G.726; AAC; G.723 |

### Network

| | |
|---|---|
| Network | RJ-45 (10/100/1000 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 |
| Edge Storage | FTP; Micro SD card (256 G); NAS; SFTP |
| Browser | IE: Versions later than IE9<br>Google: Versions later than Chrome 42<br>Firefox: Versions later than Firefox 48.0.2 |
| Management Software | Smart PSS, DSS PRO, NVR, IVSS, 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: 2/2 channel In/Out |
|---|---|
| Audio Output | |
| Alarm Input | 2 channel In: 5mA 5V DC<br>2 channel Out: 1000mA 30V DC/500mA 50V AC |
| Alarm Output | |

## Power

| Power Supply | 12V DC/24V AC/POE |
|---|---|
| Power Consumption | <14.4W |

## Environment

| Operating Temperature | -30°C to +60°C (-22°F to +140°F) |
|---|---|
| Operating Humidity | ≤95% |
| Storage Temperature | -30°C to +60°C (-22°F to +140°F) |

## Structure

| Casing | Metal |
|---|---|
| Dimensions | 86 mm×74 mm×150 mm (3.39" × 2.91" × 5.91") (L × W × H) |
| Net Weight | 800g (1.76 lb) |
| Gross Weight | 900g (1.98 lb) |

## Ordering Information

| Type | Part Number | Description |
|---|---|---|
| 4MP Camera | DH-IPC-HF7442FP-FR | 4MP AI BOX Network Camera |
| | DH-IPC-HF7442FN-FR | |
| | IPC-HF7442FP-FR | |
| | IPC-HF7442FN-FR | |
| Accessories (optional) | DH-PFB110W | Wall /Ceiling/Plane mount |
| | DH-PFB121W | Wall Mount |
| | DH-PLZ21C0-D | 10.5-42 mm |
| | DH-PLZ20C0-D | 3.7-16 mm |
| | DH-PFH610N | Housings |

## Accessories

### Optional:

| DH-PFB110W | DH-PFB121W | DH-PLZ21C0-D 10.5-42 mm |
|---|---|---|

| DH-PLZ20C0-D 3.7-16 mm | DH-PFH610N Housings |
|---|---|

| Wall Mount/Ceiling/Plane mount | Wall Mount |
|---|---|
| PFB110W | PFB121W |

## Dimensions (mm/inch)

161.6 [6.36]
149.9 [5.9]
86.8 [3.42]
74.0 [2.91]
78.4 [3.09]
1/4-20 × 6UNC
62.9 [2.48]
31.0 [1.22]
2-1/4-20 × 6UNC