# DH-IPC-HF8242F-FR

## 2MP Starlight Face Recognition Box AI Network Camera

· 1/1.8" 2Megapixel progressive scan CMOS
· H.265&H.264 triple-stream encoding
· 50/60fps@1080P(1920×1080)
· WDR(120dB), Day/Night(ICR), 3DNR,AWB,AGC,BLC
· Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
· Auto back focus(ABF)
· Micro SD memory, PoE
· Support face capture, face attributes, face recognition

Deep · Sense

| 2Mp | H.265+ | Face Capture | Metadata | Face Recognition | Starlight | WDR |

AI series products adopt the most advanced AI technologies, including deep learning algorithms that primarily target people and vehicles, which provides higher flexibility and accuracy for end-users. This enables the Dahua AI series to offer various advanced applications such as Face Recognition, ANPR, Metadata, People Counting, traffic data statistics, etc.The complete lineup of Dahua AI includes network (PTZ) cameras, network video recorders, servers, and platform management products. Beyond seeing the world, the power of AI allows devices to perceive the environment and understand the world in a better way.

### Face Recognition

Once facial features are extracted from captured faces, they are stored in a database where they can be easily searched and compared against other images. Once a successful match is found, the system outputs the result. The Dahua Face Recognition camera supports a built-in database that stores up to 10,000 facial images, helping the camera achieve real-time face capture and comparison.

### System Overview

Face recognition AI network camera is designed to focus on the recognition of frontal human faces, it adopts high performance smart chip with deep learning technology, which can provide high precision face image snapshot and comparison. This product supports real-time face detection, face attributes analysis, face images comparison and face image database management.

### Starlight Technology

Featuring Dahua's Starlight Technology, this camera is ideal for applications with challenging lighting conditions. Its low-light performance delivers usable video with minimal ambient light. Even in extreme low-light conditions, Starlight Technology is capable of delivering color images in near complete darkness.

### Functions

#### Face Capture

Face capture 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.

### Wide dynamic range (WDR)

Embeded with industry leading wide dynamic range (WDR) technology, vivid picutures are achieved even in the most intense contrast lighting conditions. For applications with both bright and low lighting conditions that change quickly, True WDR (120dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

### Smart Codec (H.265+ & H.264+)

Smart Codec is the optimized implementation of standard video compression (H.265 & H.264) that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart Codec technology reduces bit rate and storage requirements by up to 70% when compared to the standard video compression.

#### Face Attributes

Through the use of deep learning algorithms to analyze facial images, Dahua cameras can extract six facial attributes from each frame, including gender, age, expression (happy, calm, surprised, sad, and angry), glasses, masks, and mustaches. Customers can acquire data of interest via face attributes statistics.

#### Metadata

Metadata is feature attribute information extracted from a target object which can be used for data retrieval. Dahua face recognition camera can extract six facial attributes and output the metadata for analysis.

ONVIF

## Technical Specification

### Camera

| | |
|---|---|
| Image Sensor | 1/1.8" 2Megapixel progressive scan CMOS |
| Effective Pixels | 1920(H)x1080(V) |
| RAM/ROM | 2048MB/4096MB |
| Scanning System | Progressive |
| Electronic Shutter Speed | Auto/Manual, 1/3~1/100000s |
| Minimum Illumination | 0.001Lux/F1.2(Color,1/3s,30IRE)<br>0.01Lux/F1.2(Color,1/30s,30IRE)<br>0.0005Lux/F1.2(B/W,1/3s,30IRE)<br>0.005Lux/F1.2(B/W,1/30s,30IRE) |
| S/N Ratio | More than 50dB |
| IR Distance | N/A |
| IR On/Off Control | N/A |
| IR LEDs | N/A |

### Lens

| | |
|---|---|
| Lens Type | N/A |
| Mount Type | C/CS |
| Focal Length | N/A |
| Max. Aperture | N/A |
| Angle of View | N/A |
| Optical Zoom | N/A |
| Focus Control | N/A |
| Close Focus Distance | N/A |

### Pan/Tilt/Rotation

| | |
|---|---|
| Pan/Tilt/Rotation Range | N/A |

### Artificial Intelligence

| | |
|---|---|
| Face Capture | Support face image capture |
| Face Attributes | Support 6 kinds of face attributes extraction: Age, Gender, Expression(Jolly, Calm, Surprise, Sad, Rage), Glasses, Mouth Mask, Moustache |
| Face Recognition | Support face images matching, support up to 10000 face images and 5 image libraries management; |

### General Intelligence

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

### Video

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|---|---|
| Compression | H.265/H.264/H.264B/H.264H/MJPEG(Sub Stream) |
| Smart Codec | Support H.265+/H.264+ |
| Streaming Capability | 3 Streams |
| Resolution | 1080P(1920×1080)/ 1.3M(1280x960)/ 720P(1280x720)/ D1(704×576/704x480)/ VGA(640x480) |
| Frame Rate | Main Stream: 1080P(1~50/60fps) |
| | Sub Stream: D1 (1 ~ 50/60fps) |
| | Third Stream: 1080P(1~50/60fps) |

| | |
|---|---|
| Bit Rate Control | CBR/VBR |
| Bit Rate | H.264: 24~ 10240Kbps<br>H.265: 14~ 6144Kbps |
| Day/Night | Auto(ICR) / Color / B/W |
| BLC Mode | BLC / HLC / WDR(120dB)/ SSA |
| 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) | Support |
| Smart IR | N/A |
| Defog | Support |
| Digital Zoom | 16x |
| Flip | 0°/90°/180°/270° |
| Mirror | Off / On |
| Privacy Masking | Off / On (4 Area, Rectangle) |

### Audio

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|---|---|
| Compression | G.711a/ G.711Mu/ AAC/ G.726 |

### Network

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|---|---|
| Ethernet | RJ-45 (100/1000Base-T) |
| Protocol | HTTP;HTTPs;TCP;ARP;RTSP;RTP;UDP;RTCP;SMTP;FTP;DHCP;DNS;DDNS;PPPOE;IPv4/v6;QoS;UPnP;NTP;Bonjour;IEEE 802.1x;Multicast;ICMP;IGMP;SNMP;TLS |
| Interoperability | ONVIF Profile S&G, API |
| Streaming Method | Unicast / Multicast |
| Max. User Access | 10 Users/20 Users |
| Edge Storage | NAS<br>Local PC for instant recording<br>Mirco SD card 128GB |
| Web Viewer | IE, Chrome, Firefox, Safari |
| Management Software | Smart PSS, DSS, DMSS |
| Smart Phone | IOS, Android |

### Certifications

| | |
|---|---|
| Certifications | CE (EN 60950:2000)<br>UL:UL60950-1<br>FCC: FCC Part 15 Subpart B |

https://boutique.idms.fr

## Interface

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|---|---|
| Video Interface | 1 port(BNC,1Vp-p,75Ω ) |
| Audio Interface | 2/1 channel In/Out, 1 Built-in Mic |
| RS485 | 1 port |
| Alarm | 2 channel In: 5mA 5VDC<br>2 channel Out: 1A 30VDC / 0.5A 50VAC |
| Power Out | 165mA 12VDC |

## Electrical

| | |
|---|---|
| Power Supply | DC12V, AC24V, PoE(802.3af)(Class 0) |
| Power Consumption | < 10W |

## Environmental

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

## Construction

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|---|---|
| Casing | Metal |
| Dimensions | 161.6mm×85.5mm×74.0mm (6.36"×3.37"×2.91") |
| Net Weight | 0.78Kg (1.72lb) |
| Gross Weight | 0.92Kg (2.03lb) |

## Ordering Information

| Type | Part Number | Description |
|---|---|---|
| 2MP Camera | DH-IPC-HF8432FP-FR | 2MP Starlight Face Recognition Box AI Network Camera, PAL |
| | DH-IPC-HF8242FN-FR | 2MP Starlight Face Recognition Box AI Network Camera, NTSC |
| | IPC-HF8242FP-FR | 2MP Starlight Face Recognition Box AI Network Camera, PAL |
| | IPC-HF8242FN-FR | 2MP Starlight Face Recognition Box AI Network Camera, NTSC |
| Accessories (optional) | PFB110W | Wall mount |
| | PFB121W | Wall mount |
| | PLZ20C0-D | 3.7~16mm Lens |
| | PLZ21C0-D | 10.5~42mm Lens |
| | PFH610 Series | Housings |

## Accessories

**Optional:**

PFB110W
Wall mount

PFB121W
Wall mount

PLZ20C0-D

PLZ21C0-D

PFH610 Series

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

## Dimensions (mm/inch)

161.6 [6.36"]
149.9 [5.9"]
85.5 [3.37"]
74.0 [2.91"]