

# DH-IPC-HF8242F-FR

## 2MP Starlight Face Recognition Box AI Network Camera



Deep·Sense

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.

### 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.

### 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.

#### 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.

- 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



#### 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.

#### 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.

#### Wide dynamic range (WDR)

Embedded with industry leading wide dynamic range (WDR) technology, vivid pictures 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.

## 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) 0.01Lux/F1.2(Color,1/30s,30IRE) 0.0005Lux/F1.2(B/W,1/3s,30IRE) 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

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(1920x1080)/ 1.3M(1280x960)/ 720P(1280x720)/ D1(704x576/704x480)/ 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 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

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

### Network

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;S NMP;TLS
Interoperability	ONVIF Profile S&G, API
Streaming Method	Unicast / Multicast
Max. User Access	10 Users/20 Users
Edge Storage	NAS Local PC for instant recording 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) UL:UL60950-1 FCC: FCC Part 15 Subpart B
----------------	--

Interface

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 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

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

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)

