DH-IPC-HFW71242H-Z

16MP AI IR Bullet Network Camera

· 16MP, 1/1.7" CMOS image sensor, high image definition

· Max outputs 16MP (4620 × 3465) @15 fps

· DWDR, high compression ration

· ROI, SVC, 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 ,video metadata,etc.

· 24V AC/PoE/12V DC power support

· IP67, IK10 protection grade

16Mp	Starlight	People Counting	ANPR	Face Detection	Video Metadata

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, ANPR, and liveness. This series camera has ultra starlight night version effect, and works with ultra-low stream. It supports dust-proof function, waterproof function and vandal-proof function, complying to 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.

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.

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	1/1.7 16Megapixel progressive CMOS
Max. Resolution	4620 (H) × 3465 (V)
ROM	4 GB
RAM	2 GB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.01 Lux @F1.8
S/N Ratio	>56 dB
Illumination Distance	Distance up to 60m (196.85 ft)
Illuminator On/Off Control	Auto/Manual
Illuminator Number	4 (IR LED)
Pan/Tilt/Rotation Range	Pan: 0°–360° Tilt: 0°–90° Rotation: 0°–360°

Lens

Lens Type	Motorized vari-focal
Mount Type	Module interface
Focal Length	2.7–12 mm
Max. Aperture	F1.8
Field of View	Horizontal: 98°–44° Vertical: 72°–33° Diagonal: 126°–55°
Iris Type	Auto
Close Focus Distance	1.2 m (3.9 ft)

	Lens	Detect	Observe	Recognize	Identify
DORI Distance	W	97 m (318.2 ft)	38 m (124.7 ft)	19 m (62.3 ft)	9 m (29.5 ft)
	T	205 m (672.6 ft)	82 m (269.0 ft)	41 m (134.5 ft)	20 m (65.6 ft)

Smart event

IVS	Abandoned object; moving object

Professional, intelligent

IVS (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	Face detection, track, optimization, snapshot, report high quality picture (half length, full length), 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 Face matting setting: face, single inch photo Three snapshot methods: real-time snapshot, optimization snapshot, quality priority Face angle filter Optimization time setting

ANPR	ANPR, track, priority, snapshot Vehicle attributes: license plate, vehicle type, vehicle color,vehicle brand Other attributes: sun visor, seat belt, smoking, phoning, in-car accessories, annual vehicle inspection mark
Video Metadata	Support human body, human face, motor vehicle and non-motor vehicle image capture and attributes extraction.
People Counting	Count the entry number and exit number , display and output daily/monthly/annual report Count people in area, display and output daily/monthly/annual report
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	Smart H.265+/H.264+
Video Frame Rate	Main Stream: 4620 × 3465 (1–15 fps) sub stream 1: D1(1–25 fps) sub stream 2: 2688× 1520 (1–25 fps)
Stream Capability	3 streams
Resolution	16M (4620 × 3465), D1 (704 × 576),4M(2688× 1520)
Bit Rate Control	CBR/VBR
Video Bit Rate	H.264: 32 kbps-16384 kbps H.265: 12 kbps-16384 kbps
Day/Night	Auto (ICR)/Color/B/W
BLC	Yes
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 and lower.)
Mirror	Yes

Audio

Audio Compression	G.711a; G.711Mu; G726; AAC; G.723

Alarm

Alarm Event	No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; fast moving; abandoned object; missing object; loitering detection; people gathering; parking detection; scene changing; audio detection; voltage detection; defocus detection; external alarm; face detection; video metadata; ANPR; people counting in area; stay detection; people counting; people counting exception detection; safety exception

Network

Network	RJ-45 (10/100/1000 Base-T)
SDK and API	Yes
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: IE9 and later Chrome: Chrome 42 and later Firefox: Firefox 48.0.2 and later
Management Software	Smart PSS, DSS PRO, DMSS
Mobile Phone	IOS, Android

Certification

Certifications	CE-LVD: EN60950-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07

Port

RS-485	1 (baud rate range: 1200 bps–115200 bps)
Audio Input	1 channel in
Audio Output	1 channel out
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)
Protection Grade	IP67; IK10

Structure

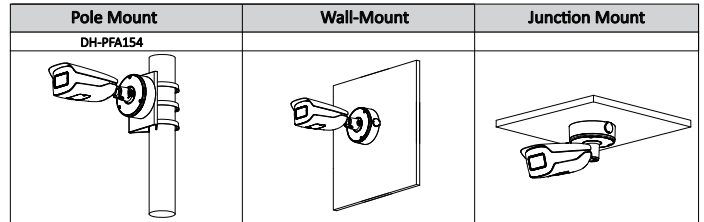|	
Casing	Metal + Plastic
Dimensions	340.1 mm × 108.5 mm × 92.9 mm (13.39" × 4.27" × 3.66") (L × W × H)
Net Weight	1600 g (3.53 lb)
Gross Weight	2400 g (5.29 lb)

Ordering Information

Type	Part Number	Description
16MP Camera	DH-IPC-HFW71242HN-Z-2712-DC12AC24V	16MP AI IR Bullet Network Camera
	DH-IPC-HFW71242HP-Z-2712-DC12AC24V	16MP AI IR Bullet Network Camera
	IPC-HFW71242HN-Z-2712-DC12AC24V	16MP AI IR Bullet Network Camera
	IPC-HFW71242HP-Z-2712-DC12AC24V	16MP AI IR Bullet Network Camera
Accessories (optional)	PFA154	Pole Mount

Accessories

Optional:

PFA154

Pole Mount	Wall-Mount	Junction Mount
DH-PFA154		

Dimensions (mm/inch)

340.1 [13.39]

138.3 [5.44]
108.5 [4.27]
92.9 [3.66]
134.0 [5.27]

⌀134.0 [⌀5.27]
⌀118.0 [⌀4.65]
3-⌀4.4 [⌀0.17]