DH-IPC-HDBW7442H-Z

4MP AI IR Dome Network Camera

ePoE

- 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 detection, perimeter protection etc.
- 24V AC/PoE/12V DC power support
- Five streams for three-channel HD video
- IP67, IK10 protection grade

System Overview

With advanced deep learning algorithm, Dahua Ultra AI series network camera supports various intelligent functions and satisifies 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.

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	4 GB
RAM	2 GB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100000 s
Min. Illumination	0.001 Lux@F1.2
IR Distance	Distance up to 40 m (131.23 ft)
IR On/Off Control	Auto
IR LEDs Number	3 (IR LEDs)
Pan/Tilt/Rotation Range	Pan: 0°–355° Tilt: 0°–80° Rotation: 0°–355°

Lens

Lens Type	Motorized vari-focal
Mount Type	Module interface
Focal Length	2.7mm-12mm
Max. Aperture	F1.2
Field of View	Horizontal:111° (W)–47° (T) Vertical: 59° (W)–26° (T) Diagonal: 135° (W)–51° (T)
Iris Type	Auto aperture
Close Focus Distance	w: 1 m (W: 3.28 ft) T: 2.5 m (T: 8.20ft)

	Lens	Detect	Observe	Recognize	Identify
DORI Distance	W	60.1 m (197.18 ft)	24 m (78.74 ft)	12 m (39.37 ft)	6 m (19.69 ft)
	T	128.6 m (421.92 ft)	51.4 m (168.64 ft)	25.7 m (84.31 ft)	12.8 m (41.99 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	Face detection, 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 Face matting setting: face, single inch photo Three snapshot methods: real-time snapshot, priority snapshot, quality priority Face angle filter Priority 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	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) sub stream 1: 704 × 576 (1–25/30 fps) sub stream 2: 1920 × 1080 (1–25/30 fps) sub stream 3: 1920 × 1080 (1–25/30 fps) 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 × 288/352 × 240)
Bit Rate Control	CBR/VBR
Video Bit Rate	H.264: 32 Kbps–10240 Kbps H.265: 12 Kbps–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; G726; 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 Chrome: Versions later than Chrome 42, 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 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 (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 2 channel Out: 1000mA 30V DC/500mA 50V AC
Alarm Output	

Power

Power Supply	12V DC/24V AC/POE
Power Consumption	Basic power consumption: 5.4W (12V DC); 5W (24V AC active power); 4.9W (POE); Max power consumption (ICR switch, and IR full intensity): 16.7W (12V DC); 15.7W (24V AC active power); 15.6W (POE);

Environment

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

Structure

Dimensions	129.1 mm × Φ157.9 mm (5.08" × Φ6.22") (L × W × H)
Net Weight	1500 g (3.31lb)
Gross Weight	1600 g (3.53 lb)
Installation	Ceiling Mount; side Mount; pole Mount

Ordering Information

Type	Part Number	Description
4MP Camera	DH-IPC-HDBW7442HP-Z	4MP AI IR Dome Network Camera
	DH-IPC-HDBW7442HN-Z	4MP AI IR Dome Network Camera
	IPC-HDBW7442HP-Z	4MP AI IR Dome Network Camera
	IPC-HDBW7442HN-Z	4MP AI IR Dome Network Camera
Accessories	PFA773	Wall Mount
	PFB210W	Wall Mount
	PFA152-E	Pole Mount
	PFA101	Wall Mount
	PFB300C	Ceiling Mount

Accessories

Optional:

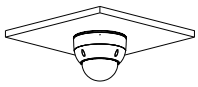
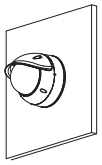
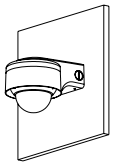
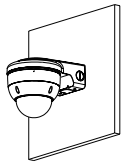
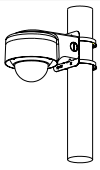
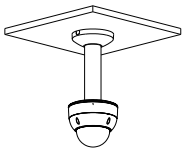
PFA773

PFB210W

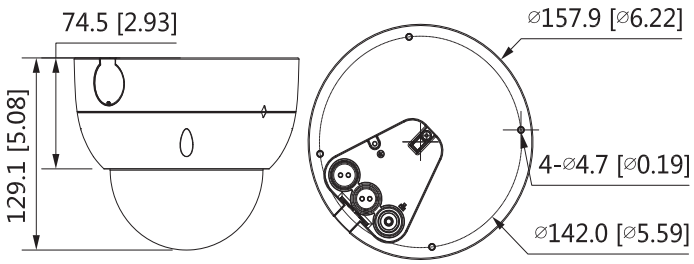
PFA152-E

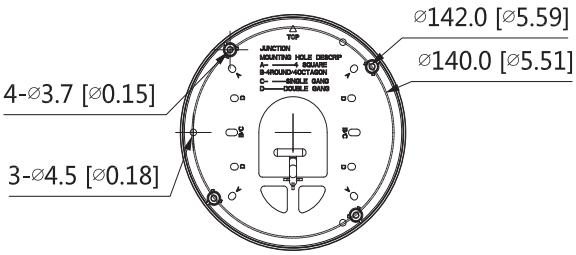
PFA101

PFB300C

Ceiling Mount	Wall Mount	Wall Mount
	PFA773	PFB210W
		
Wall Mount	**Pole Mount**	**Hang Mount**
PFB210W	PFB210W+PFA152-E	PFB300C+PFA101
		

Dimensions (mm[inch])





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