

DH-IPC-HFW7842H-Z

8MP AI IR Bullet Network Camera



System Overview

With Hisilicon advanced chip, image sensor and deep learning algorithm, Dahua Ultra-AI series network camera supports various intelligent functions and meet customers' requirements in different scenes. Adopting excellent image processing technology, Dahua AI network camera performs good in WD and low illuminance environment. For intelligent functions, it supports face detection, people counting, perimeter protection, video structurization (vehicle, non-motor vehicle, personnel detection and snapshot), and ANPR. The camera provides better solution to image processing and intelligent application.

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

People Counting

People counting adopts deep learning algorithm to detect human body target, and track the target in real time, which realizes independent statistics of entry number and exit number. And the accuracy rate is up to 98%.

Video Structurization

Video structurization adopts deep learning algorithm to detect vehicle, non-motor vehicle and people in the image, track the target in real time, and then snapshot the target and extract attribute.

Smart H.265+

Smart H.265+ is an effective coding method based on H.265. Comparing with H.265, smart H.265+ improves efficiency more than 70% through auto scene judgement, dynamic ROI and dynamic GOP. Smart H.265+ provides better solution to save storage, bandwidth and power consumption.

- \cdot 8MP, 1/1.8" CMOS image sensor, low illuminance, high image definition
- · Max outputs 8MP (3840×2160) @25fps/30fps
- · H.264&H.265 coding, high compression ration
- \cdot Wide dynamic, day/night, 3D noise reduction, AWB, HLC, BLC
- \cdot ROI, SVC, SMART H.264/H.265, flexible coding, appli-
- cable to various bandwidth and storage environments
- With deep learning algorithm, it supports people counting, face detection, perimeter protection, ANPR and video metadata.
- · 24V AC/POE/12V DC power support
- · · Five streams for three-channel HD video
- · IP67, IK10 protection grade



EPOE

Dahua ePoE technology, designed internally, adopts advanced 2D-PAM3 coding modulation from physical layer, and realizes full duplex transmission over 800 meters at the speed of 10Mbps, or 300 meters at the speed of 100Mbps via Cat 5 or coaxial cable media. Besides, it supports PoE and PoC power supply technology which has greatly simplified construction and wiring. Dahua ePoE technology offer 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

Dahua's Perimeter Protection functions significantly improved accuracy. Perimeter Protection reduces false alarms and decreases pixel count requirements for object detection. Perimeter Protection features custom tripwires based on object type for automation in limited access areas such as pedestrian or vehicle-only zones. This combination of advanced AI analytics and real-time alerts to a desktop or to a mobile client reduces system requirements and resources resulting in greater surveillance system efficiency.



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Technical Specification						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
Camera							
Image Sensor		1/1.8"8Megapixel progressive CMOS					
Effective Pixels		3840 (H) × 2160 (V)				Video Structurization	Vehicle detection, non-motor vehicle detection, personnel detection, face detection, track, snapshot, optimization, report high quality picture, vehicle attributes (license plate, vehicle type, vehicle color, and vehicle brand), other attributes (sun visor, seatbelt, smoking, phoning, in-car accessories, and annual vehicle inspection mark), non-motor vehicle attributes: vehicle type, vehicle color, driver number, cloth type, cloth color, and hat), personnel attribute (cloth type, trousers type, cloth color, trousers color, knapsack, and gender), face attribute (gender, age , glasses, mask, and beard)
ROM		4 GB					
RAM		2 GB					
Scanning System		Progressive					
Electronic Shutter Speed		Auto/Manual 1/3 s-1/100000 s					
Min. Illumination		0.005 Lux@F1.2 (Color, 1/3 s, 30 IRE)					
IR Distance		Distance up to 50m (164.04 ft)				People Counting	People counting (count the entry number, exit number and pass number), display and output daily/monthly/ annual statistics, No. in area
IR On/Off Control		Auto					
IR LEDs Number		4 (IR LEDs) Horizontal: 0°–360°				Intelligent Search	Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos.
Pan/Tilt/Rotation Range		Vertical: 0°–90° Rotation: 0°–360°				Video	
Lens						Video Compression	H.265, H.264,H.264H,H.264B, MJPEG
Lens Type		Electric zoom				Smart Codec	H.264: Yes
Mount Type		Module interface					H.265: Yes Main Stream: 3840 × 2160 (1–25/30 fps)
Focal Length		2.7–12 mm				Video Frame Rate	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)
Max. Aperture	Max. Aperture						sub stream 4: 704 × 576 (1–25/30 fps)
Field of View		Horizontal: 111° (W)–47° (T) Vertical: 59° (W)–26° (T) Diagonal: 135° (W)–51° (T)				Stream Capability	5 streams 8M (3840 × 2160), 6M (3072 × 2048/3072 × 1728), 5M (2592 × 1944), 4M (2688 × 1520), 3M (2048 ×
Optical Zoom		4 times				Resolution	1536/2304 × 1296), 1080p(1920 × 1080), 1.3M (1280 × 960), 720p (1280 × 720), D1 (704 × 576/704 × 480), VGA (640 × 480), CIF (352 × 288/352 × 240)
Iris Type		Auto aperture				Bit Rate Control	CBR/VBR
Close Focus Distance		W: 1 M (3.29ft) T: 2.5 M (8.20ft)				Video Bit Rate	H.264: 32 kbps-16384 kbps H.265: 12 kbps-16384 kbps
DORI	Lens	Detect 87.2 m	Observe 34.9 m	Recognize 17.4 m	Identify 8.7 m	Day/Night	ICR switch
Distance	vv	(286.09 ft)	(114.50 ft)	(57.09 ft)	(49.54 ft)	BLC	Yes
	Т	186.7 m (612.53 ft)	74.7 m (245.07 ft)	37.3 m (122.38 ft)	18.6 m (131.23 ft)	WDR	120 dB
Smart event	Smart event				White Balance	Auto/natural/street lamp/outdoor/manual/regional Custom	
General IVS Analytics		Tripwire, intrusion, loitering detection, people gathering, fast moving and parking detection.				Gain Control	Manual
Professional					Noise Reduction	3DNR	
Perimeter Prot	Perimeter Protection		moving, loite	cation of vehic ring detection, ering		Motion Detection	Yes
Face Snapshot		detection and people gathering. Yes				Region of Interest(RoI)	Yes (4 areas)
		Face detection, track, priority, snapshot, face				Electronic Image Stabilization(EIS)	Yes
Face Detection		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				Smart IR	Yes (Adjust by user)
						Defog	Yes
		matting sett	ing: face, singl	e inch photo T	hree snapshot apshot, quality	Image Rotation	0°/90°/180°/270° (Supports 90°/270° with 1080p resolution or below.)
		Face angle filter Priority time setting				Mirror	Yes

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Privacy Masking	4 areas					
Audio						
Audio Compression	G.711a, G.711Mu, G726, AAC					
Network						
Network	RJ-45 (100/1000 Base-T)					
Protocol	HTTP, TCP, ARP, RTSP, RTP, UDP, RTCP, SMTP, FTP, DHCP, DNS, DDNS, PPPoE, IPv4/v6, SNMP, QoS, UPnP, NTP					
Interoperability	ONVIF(Profile S/Profile G); CGI; P2P; RTMP					
Scene self-adaptation	Yes					
User/Host	20					
Edge Storage	FTP; Micro SD card (256 G); NAS; SFTP					
Browser	IE: Versions later than IE9 Google: Versions later than Chrome 42 Firefox: Versions later than Firefox 48.0.2					
Management Software	Smart PSS, DSS PRO, NVR, IVSS					
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					
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)					
Ingress Protection	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	1.6 kg (3.53 lb)					
Gross Weight	2.4 kg (5.29 lb)					

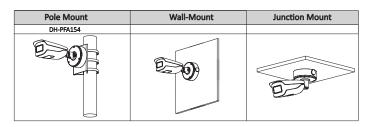
Ordering Information							
Туре	Part Number	Description					
	DH-IPC- HFW7842HP-Z	8MP AI IR Bullet Network Camera					
8MP Camera	IPC-HFW7842HP-Z	8MP AI IR Bullet Network Camera					
Sivir Camera	DH-IPC- HFW7842HN-Z	8MP AI IR Bullet Network Camera					
	IPC-HFW7842HN-Z	8MP AI IR Bullet Network Camera					
Accessories (optional) PFA154		Pole Mount					

Accessories

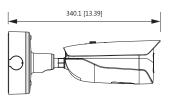
Optional:

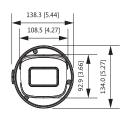


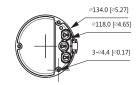
PFA154 Pole Mount



Dimensions (mm/inch)









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