

DH-IPC-HFW5442T-ASE

4MP WDR IR Bullet AI Network Camera



- 1/1.8" 4Megapixel progressive scan CMOS
- H.265 & H.264 triple-stream encoding
- 25/30 fps@2688 × 1520, 50/60 fps@1080 (1920 × 1080)
- WDR (140 dB), Day/Night (ICR), 3D DNR, AWB, AGC, BLC
- Multiple network monitoring: Web viewer, CMS (DSS/PSS) & DMSS
- 2.8 mm fixed lens (3.6 mm, 6.0 mm optional)
- 1/1 Alarm in/out, 1/1 audio in/out
- Max. IR LEDs Length 50 m
- Micro SD memory, IP67



Dahua 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

Pro AI series contains Face Capture, Perimeter Protection and People Counting functions. Powered by deep-learning Artificial Intelligence algorithms, significantly improved accuracy. Active Deterrence and Full Color camera are also in this series. Meanwhile, the series features starlight and smart IR technology. This series fully protected from dust and water, certified to IP67 standard.

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.

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.

People Counting

People Counting function uses advanced image processing technology to capture depth information from within images. The camera pairs this information with deep learning algorithms to analyze and detect human bodies and track target objects in real time. The camera provides statistics for separate individuals' entrance and exit with up to 95% counting accuracy.

ePoE technology

The ePoE technology of Dahua, 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.

Protection(IP67, wide voltage)

The camera allows for $\pm 30\%$ input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 6KV lightning rating provides effective protection for both the camera and its structure against lightning. Subjected and certified to rigorous dust and immersion tests (IP67), the camera is the choice for installation in even the most unforgiving environments.

Technical Specification					
Camera					
Image Sensor		1/1.8" 4Megapixel progressive scan CMOS			
Effective Pixels		2688 (H) × 1520 (V)			
RAM/ROM		512 MB/128 MB			
Scanning System		Progressive			
Electronic Shutter Speed		Auto/Manual, 1/3 s–1/100000 s			
Minimum Illumination		0.001 Lux@F1.6			
IR Distance		Distance up to 50 m (164 ft)			
IR On/Off Control		Auto/Manual			
IR LEDs		4			
Lens					
Lens Type		Fixed			
Mount Type		Board-in			
Focal Length		2.8 mm, 3.6 mm, 6.0 mm			
Max. Aperture		F1.6			
Angle of View		H: 113°, V: 60°/H: 89°, V: 48°/H: 56°, V: 31°			
Optical Zoom		N/A			
Aperture Type		Fixed			
Close Focus Distance		1.3 m (4.27 ft)/1.9 m (6.23 ft)/3.8 m (12.47 ft)			
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8mm	58m(190ft)	23m(75ft)	12m(39ft)	6m(20ft)
	3.6mm	72m(236ft)	29m(95ft)	14m(46ft)	7m(23ft)
	6mm	113m(371ft)	45m(148ft)	23m(75ft)	11m(36ft)
Pan/Tilt/Rotation					
Pan/Tilt/Rotation Range		Pan: 0°–360°; Tilt: 0°–90°; Rotation: 0°–360°			
Artificial Intelligence					
Face Capture		Support face image capture			
Perimeter Protection		Tripwire, Intrusion (Human & Vehicle classification)			
People Counting		Support Line crossing/Region/Queueing people counting; Support 4 accesses independent detection, 4 areas independent detection			
General Intelligence					
Event Trigger		Motion detection, Video tampering , Scene changing, Network disconnection , IP address conflict, Illegal Access, Storage anomaly			
General Intelligence		Object Abandoned/Missing			
Video					
Compression		H.265+, H.265, H.264+, H.264, H.264B, H.264H, MJPEG(sub stream)			
Streaming Capability		3 Streams			
Resolution		2688 × 1520/2560 × 1440/2304 × 1296/1080P (1920 × 1080)/1.3M (1280 × 960)/720P (1280 × 720)/D1 (704 × 576/704 × 480)/VGA (640 × 480)/CIF (352 × 288/352 × 240)			

Frame Rate	Main Stream: 2688 × 1520 (1 fps–25/30 fps) 2560 × 1440 (1 fps–25/30 fps) 1920 × 1080 (1 fps–50/60 fps)
	Sub Stream: D1 (1 fps–25/30 fps) D1 (1 fps–50/60 fps)
	Third Stream: 1080P (1 fps–16 fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 32 Kbps–8192 Kbps H.265: 19 Kbps–8192 Kbps
Day/Night	Auto(ICR)/Color/B/W
BLC Mode	BLC/HLC/WDR (140 dB)
White Balance	Auto/Natural/Street Lamp/Outdoor/Manual
Gain Control	Auto/Manual
Noise Reduction	3D DNR
Motion Detetion	Off/On (4 Zone, Rectangle)
Region of Interest	Off/On (4 Zone)
Electronic Image Stabilization (EIS)	N/A
Smart IR	Support
Defog	Support
Digital Zoom	N/A
Flip	0°/90°/180°/270°
Mirror	Off/On
Privacy Masking	Off/On (4 Area, Rectangle)
Audio	
Compression	G.711a, G.711Mu, G.726, AAC, G.723
Network	
Ethernet	RJ-45 (10/100 Base-T)
Protocol	HTTP, TCP, ARP, RTSP, RTP, UDP, RTCP, SMTP, FTP, DHCP, DNS, DDNS, PPPoE, IPv4/v6, SNMP, QoS, UPnP, NTP, ICMP, HTTPS, IGMP, 802.1x
Interoperability	ONVIF (Profile S/Profile G), CGI, Milstone, Genetec, P2P
Streaming Method	Unicast/Multicast
Max. User Access	20 Users
Edge Storage	NAS FTP Micro SD card 256 GB
Web Viewer	IE (versions newer than IE8), Chrome, Firefox, Safari (versions newer than Safari 12)
Management Software	Smart PSS, DSS, P2P
Smart Phone	iOS, Android
Certifications	
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

Interface

Video Interface	N/A
Audio Interface	1/1 channel In/Out
RS485	N/A
Alarm	1 channel In: 5mA 5V DC 1 channel Out: 300mA 12V DC

Electrical

Power Supply	DC 12V ($\pm 30\%$), PoE (802.3af) (Class 0)
Power Consumption	<9.5W

Environmental

Operating Conditions	-30° C to +60° C (-22° F to +140° F)/10%RH–95%RH
Storage Conditions	-30° C to +60° C (-22° F to +140° F)
Ingress Protection	IP67
Vandal Resistance	N/A

Construction

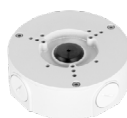
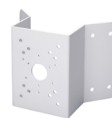
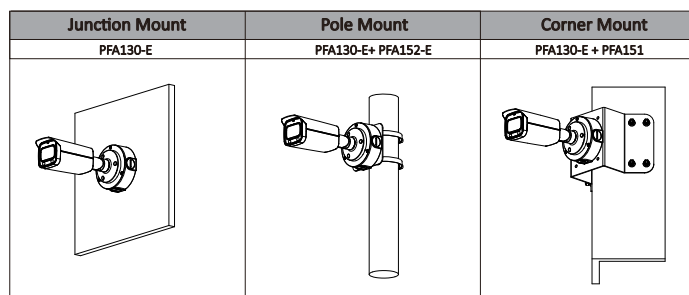
Casing	Metal
Dimensions	244.1 mm \times 79.0 mm \times 75.9 mm (9.61" \times 3.11" \times 2.99")
Net Weight	0.815 kg (1.80 lb)
Gross Weight	1.08 kg (2.38 lb)

Ordering Information

Type	Part Number	Description
4MP camera	DH-IPC-HFW5442TP-ASE	4MP WDR IR Bullet AI Network Camera, WDR, PAL
	DH-IPC-HFW5442TN-ASE	4MP WDR IR Bullet AI Network Camera, WDR, NTSC
	IPC-HFW5442TP-ASE	4MP WDR IR Bullet AI Network Camera, WDR, PAL
	IPC-HFW5442TN-ASE	4MP WDR IR Bullet AI Network Camera, WDR, NTSC
Accessories (optional)	PFA130-E	Junction box
	PFA152-E	Pole Mount
	PFA151	Corner Mount

Accessories

Optional:

PFA130-E
Junction boxPFA152-E
Pole MountPFA151
Corner MountLR1002
ePoE Over Coax Converter

Dimensions (mm[inch])

