DAHUA TECHNOLOGY

DH-IPC-HFW5541T-ASE
5MP WDR IR Bullet AI Network Camera

ePoE

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 and vandal resistant to IK10 standard.

Functions

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.

· 1/2.7" 5Megapixel progressive scan STARVIS™ CMOS

· H.265&H.264 triple-stream encoding

· 20fps@5Mp(2592×1944)

· WDR(120dB), Day/Night(ICR), 3DNR, AWB, AGC, BLC

· Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS

· 2.8mm fixed lens (3.6mm, 6mm, 8mm, 12mm optional)

· 1/1 Alarm in/out, 1/1 audio in/out

· Max. IR LEDs Length 78m

· Micro SD memory, IP67

5Mp | Perimeter | People Counting | Metadata | Starlight

Metadata

Metadata is feature attribute information extracted from a target object which can be used for data retrieval. Dahua face detection camera can extract six facial attributes and output the metadata for analysis.

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 ±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.

ONVIF

Technical Specification

Camera

Image Sensor	1/2.7" 5Megapixel progressive scan CMOS
Effective Pixels	2592(H) x 1944(V)
RAM/ROM	512MB/128MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual, 1/3~1/100000s
Minimum Illumination	0.004807Lux/F1.6 (Color,1/3s,30IRE) 0.04359Lux/F1.6 (Color,1/30s,30IRE) 0Lux/F1.6 (IR on)
IR Distance	2.8mm:Distance up to 23m (51ft) 3.6mm:Distance up to 34m (112ft) 6mm:Distance up to 47m (154ft) 8mm:Distance up to 56m (184ft) 12mm:Distance up to 78m (256ft)
IR On/Off Control	Auto/ Manual
IR LEDs	4

Lens

Lens Type	Fixed
Mount Type	Board-in
Focal Length	2.8mm,3.6mm,6mm,8mm,12mm
Max. Aperture	F1.6(2.8mm~8mm),F2.0(12mm)
Angle of View	H: 102°, V:71°/H: 84°, V:58°/H: 51°, V:37°/ H: 38°,V:28°/H:25°,V:18°
Optical Zoom	N/A
Aperture Type	Fixed
Close Focus Distance	0.9m(2.95ft)/1.6m(5.25ft)/3.1m(10.17ft)/4.5m(14.73ft)/10.3m(33.79ft)

	Lens	Detect	Observe	Recognize	Identify
	2.8mm	56m(184ft)	22m(72ft)	11m(36ft)	6m(20ft)
	3.6mm	80m(262ft)	32m(105ft)	16m(52ft)	8m(26ft)
DORI Distance	6mm	120m(394ft)	48m(157ft)	24m(79ft)	12m(39ft)
	8mm	160m(525ft)	64m(210ft)	32m(105ft)	16m(52ft)
	12mm	240m(787ft)	96m(315ft)	48m(157ft)	24m(79ft)

Pan/Tilt/Rotation

Pan/Tilt/Rotation Range	Pan:0˚~360˚; Tilt:0˚~90˚; Rotation:0˚~360˚

Artificial Intelligence

Perimeter Protection	Tripwire, Intrusion(Human & Vehicle classification)
People Counting	Line crossing people counting, Region people counting,Loitering filter

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.264/H.264B/H.264H/MJPEG(sub stream)
Streaming Capability	3 Streams
Resolution	2592×1944/2688×1920/2304×1296/1080P(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: 2592×1944(1~20fps) Sub Stream: D1(1~20/25/30fps) Third Stream: 1080P(1~13fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 32~ 8192Kbps H.265: 19~ 8192Kbps
Day/Night	Auto(ICR) / Color / B/W
BLC Mode	BLC / HLC / WDR(120dB)
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)	Support
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/ AAC/ G.726/G.723

Network

Ethernet	RJ-45 (10/100Base-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,Milstone,Genetec,P2P
Streaming Method	Unicast / Multicast
Max. User Access	20 Users
Edge Storage	NAS FTP Mirco SD card 256GB
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 5VDC 1 channel Out: 300mA 12VDC

Electrical

Power Supply	DC12V, PoE(802.3af)(Class 0)
Power Consumption	DC12V:2.4W 7.1W(IR on) PoE:3W 8.4W(IR on)

Environmental

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Operating Conditions	-30° C ~ +60° C (-22° F ~ +140° F) / 10%RH~95% RH
Strorage Conditions	+5° C ~ +40° C (+41° F ~ +104° F) (daily temperature difference within 15° C/59° F) / 10%RH~95% RH
Ingress Protection	IP67
Vandal Resistance	N/A

Construction

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

Ordering Information

Type	Part Number	Description
5MP camera	DH-IPC-HFW5541TP-ASE	5MP WDR IR Bullet AI Network Camera, WDR,PAL
	DH-IPC-HFW5541TN-ASE	5MP WDR IR Bullet AI Network Camera, WDR,NTSC
	IPC-HFW5541TP-ASE	5MP WDR IR Bullet AI Network Camera, WDR,PAL
	IPC-HFW5541TN-ASE	5MP WDR IR Bullet AI Network Camera, WDR,NTSC
Accessories (optional)	PFA130-E	Junction box
	PFA152-E	Pole Mount
	PFA151	Corner Mount

Accessories

Optional:
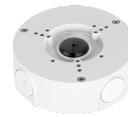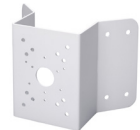
PFA130-E Junction box	PFA152-E Pole Mount	PFA151 Corner Mount

Junction Mount	Pole Mount	Corner Mount
PFA130-E	PFA130-E+ PFA152-E	PFA130-E + PFA151

Dimensions (mm/inch)

244.1 [9.61"]
153.1 [6.03"]
79.0 [3.11"]
75.9 [2.99"]

⌀90.4 [⌀3.56"]
⌀70.0 [⌀2.76"]
3-⌀4.7 [⌀0.19"]

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