

# DH-IPC-HFW5541T-ASE

## 5MP WDR IR Bullet AI Network Camera



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

#### 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 CMOS
- H.265&H.264 triple-stream encoding
- 20fps@2592×1944
- WDR(120dB), Day/Night(ICR), 3D DNR, 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



#### 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  $\pm 30\%$  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						
<b>Camera</b>						
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	0.0048Lux/F1.6 ( Color,1/3s,30IRE) 0.043Lux/F1.6 ( Color,1/30s,30IRE) 0Lux/F1.6 (IR on)					
IR Distance	Distance up to 78m (256ft)					
IR On/Off Control	Auto/ Manual					
IR LEDs	4					
<b>Lens</b>						
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)					
DORI Distance	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)	
	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)	
<b>Pan/Tilt/Rotation</b>						
Pan/Tilt/Rotation Range	Pan:0°~360°; Tilt:0°~90°; Rotation:0°~360°					
<b>Artificial Intelligence</b>						
Perimeter Protection	Tripwire, Intrusion(Human & Vehicle classification)					
People Counting	Line crossing people counting, Region people counting					
<b>General Intelligence</b>						
Event Trigger	Motion detection, Video tampering , Scene changing, Network disconnection , IP address conflict, Illegal Access,Storage anomaly					
General Intelligence	Object Abandoned/Missing					
<b>Video</b>						
Compression	H.265+/H.265/H.264+/H.264/H.264B/H.264H/MJPEG(sub stream)					
Streaming Capability	3 Streams					
Resolution	2592x1944/2688x1520/2304x1296/1080P(1920x1080)/1.3M(1280x960)/720P(1280x720)/D1(704x576/704x480)/VGA(640x480)/CIF(352x288/352x240)					
Frame Rate	Main Stream: 2592x1944(1~20fps) Sub Stream: D1(1~20/30fps) 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)	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)					
<b>Audio</b>						
Compression	G.711a/ G.711Mu/ AAC/ G.726/G.723					
<b>Network</b>						
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,Milestone,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					
<b>Certifications</b>						
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(±30%), PoE(802.3af)(Class 0)
Power Consumption	DC12V:2.4W 7.1W(IR on) PoE:3W 8.4W(IR on)

**Environmental**

Operating Conditions	-30° C ~ +60° C (-22° F ~ +140° F) / 10%RH~95% RH
Storage 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**

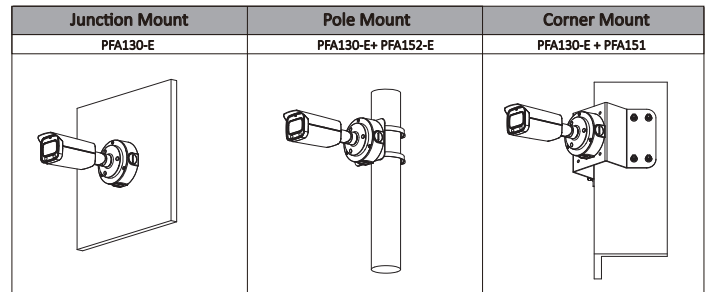
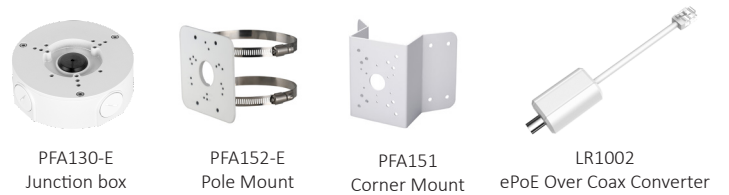
Casing	Metal
Dimensions	244.1mm×79.0mm×75.9mm (9.61"×3.11"×2.99")
Net Weight	0.815Kg (1.80lb)
Gross Weight	1.08Kg (2.38lb)

**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:**



**Dimensions (mm/inch)**

