

# DH-IPC-HFW5431E-ZE

4MP WDR IR Bullet Network Camera





### System Overview

With upgraded H.265 encoding technology, Eco-savvy series brings high efficient video compression capability. It can save bandwidth and storage. Meanwhile, the series features starlight, smart IR technology and intelligent image analysis techniques. This series supports reminder function, meanwhile fully protected from dust and water, certified to IP67 and vandal resistant to IK10 standard.

### Functions

### 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.

### Wide Dynamic Range

The camera achieves vivid images, even in the most intense contrast lighting conditions, using industry-leading wide dynamic range (WDR) technology. For applications with both bright and low lighting conditions that change quickly, true WDR (120 dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

### Intelligent Video System (IVS)

IVS is a built-in video analytic algorithm that delivers intelligent functions to monitor a scene for Tripwire violations, intrusion detection, and abandoned or missing objects. A camera with IVS quickly and accurately responds to monitoring events in a specific area. In addition to scene

- · 1/3" 4Megapixel progressive scan CMOS
- · H.265&H.264 dual-stream encoding
- · 25/30fps@4Mp(2688×1520)
- · Smart Detection supported
- · WDR(120dB), Day/Night(ICR), 3DNR, AWB, AGC, BLC
- $\cdot$  Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
- · 2.7mm ~13.5mm motorized lens
- $\cdot$  2/1 Alarm in/out, 1/1 audio in/out
- Max. IR LEDs Length 50m
- · Micro SD memory, IP67, IK10, PoE



analytics, the camera supports face detection to quickly capture a face and upload the image to a server. The camera also offers tamper detection by recognizing a dramatic scene change and generating a warning message to inspect the camera.

#### Protection(IP67, IK10, 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) and impact tests (IK10), the camera is the choice for installation in even the most unforgiving environments.

#### Smart H.265+

Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.



### Eco Savvy 3.0 | DH-IPC-HFW5431E-ZE

### **Technical Specification**

Bit Rate

Camora						
Camera		1/2" (1)	vol prograssi			
Image Sensor		1/3" 4Megapixel progressive scan CMOS				
Effective Pixels		2688(H) x 1520(V)				
RAM/ROM		512MB/32MB				
Scanning System		Progressive				
Electronic Shutter Speed		Auto/Manual, 1/3~1/100000s				
Minimum Illumination		0.03Lux/F1.4 (Color,1/3s,30IRE) 0.3Lux/F1.4 (Color,1/30s,30IRE) 0Lux/F1.4(IR on)				
S/N Ratio		More than 50dB				
IR Distance		Distance up to 50m (164ft)				
IR On/Off Control		Auto/ Manual				
IR LEDs		4				
Lens						
Lens Type	Lens Type		Motorized/ Auto Iris(DC)			
Mount Type		Board-in				
Focal Length		2.7mm~13.5mm				
Max. Aperture		F1.4				
Angle of View		H: 106°~31°, V:58°~17°				
Optical Zoom		5x				
Focus Control		Motorized				
Close Focus Distance		0.3m				
	Lens	Detect	Observe	Recognize	Identify	
DORI Distance	W	64(210ft)	26m(85ft)	13m(42ft)	6.5m(21ft)	
	Т	208m(682ft)	83m(272ft)	41m(136ft)	20m(68ft)	
Pan/Tilt/Rot						
Pan/Tilt/Rotati	on Range	Pan:0°~360°; Tilt:0°~90°; Rotation:0°~360°				
Intelligence						
IVS		Tripwire, Intrusion, Object Abandoned/Missing				
Advanced Intel	ligent Functions	Face Detection				
Video						
Compression		H.265+/H.265/H.264+/H.264				
Streaming Capability		3 Streams				
Resolution		4M(2688×1520)/3M(2304×1296)/ 1080P(1920×1080)/1.3M(1280x960)/ 720P(1280×720)/D1(704×576/704×480)/ VGA(640×480)/CIF(352×288/352×240)				
Frame Rate		Main Stream: 4M(1~25/30fps)				
		Sub Stream: D1(1~25/30fps)				
		Third Stream: 720P(1~25/30fps)				
Bit Rate Control		CBR/VBR				

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	N/A				
Digital Zoom	16x				
Flip	0°/90°/180°/270°				
Mirror	Off / On				
Privacy Masking	Off / On (4 Area, Rectangle)				
Audio					
Compression	G.711a/ G.711Mu/ AAC/ G.726				
Network					
Ethernet	RJ-45 (10/100Base-T)				
Protocol	HTTP; HTTPs; TCP; ARP; RTSP; RTP; UDP; SMTP; FTP; DHCP; DNS; DDNS; PPPOE; IPv4/v6; QoS; UPnP;NTP; Bonjour; 802.1x; Multicast; ICMP; IGMP; SNMP				
Interoperability	ONVIF, PSIA, CGI				
Streaming Method	Unicast / Multicast				
Max. User Access	10 Users /20 Users				
Edge Storage	NAS Local PC for instant recording Mirco SD card 128GB				
Web Viewer	IE, Chrome, Firefox, Safari				
Management Software	Smart PSS, DSS, Easy4ip				
Smart Phone	IOS, Android				
Certifications					
Certifications	CE (EN 60950:2000) UL:UL60950-1 FCC: FCC Part 15 Subpart B				
Interface					
Video Interface	1 Port(For adjustment only)				
Audio Interface	1/1 channel In/Out				
RS485	N/A				
Alarm	2 channel In: 5mA 5VDC 1 channel Out: 300mA 12VDC				
Electrical					
Power Supply	DC12V, PoE (802.3af)(Class 0)				
Power Consumption	<12.95W				

H.264: 24~10240Kbps H.265: 14~9984Kbps

### Eco Savvy 3.0 | DH-IPC-HFW5431E-ZE

Environmental				
Operating Conditions	-30° C $^{\sim}$ +60° C (-22° F $^{\sim}$ +140° F) / Less than 95% RH			
Strorage Conditions	-30° C $^{\sim}$ +60° C (-22° F $^{\sim}$ +140° F) / Less than 95% RH			
Ingress Protection	IP67			
Vandal Resistance	IK10			
Construction				
Casing	Metal			
Dimensions	273.2mm×95.0mm×95.0mm (10.76"×3.74"×3.74")			
Net Weight	1.11Kg (2.44lb)			
Gross Weight	1.51Kg (3.33lb)			

### **Ordering Information**

Туре	Part Number	Description	
4MP camera	DH-IPC- HFW5431EP-ZE	4MP WDR IR Bullet Network Camera,WDR,PAL	
	DH-IPC- HFW5431EN-ZE	4MP WDR IR Bullet Network Camera,WDR,NTSC	
	IPC-HFW5431EP- ZE	4MP WDR IR Bullet Network Camera,WDR,PAL	
	IPC-HFW5431EN- ZE	4MP WDR IR Bullet Network Camera,WDR,NTSC	
Accessories (optional)	PFA121	Junction box	
	PFA152-E	Pole Mount	
	LR1002	ePoE Over Coax Converter	

### Accessories

### **Optional:**



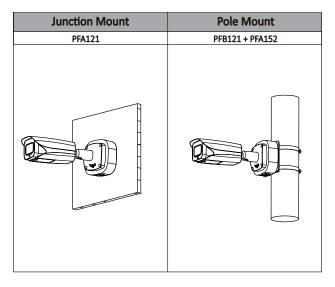




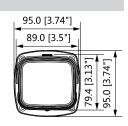
PFA121 Junction box

PFA152-E Pole Mount

LR1002 ePoE Over Coax Converter



## **Dimensions (mm/inch)** 273.2 [10.76"] 174.4 [6.87"] 160.0 [6.3"]





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