

DH-IPC-HF5431E-E 4MP WDR Box 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

- · 1/3" 4Megapixel progressive scan CMOS
- · H.264&H.265 Triple-stream encoding
- · 25/30fps@4M(2688×1520)
- · Smart Detection supported
- · WDR(120dB), Day/Night(ICR), 3DNR, AWB, AGC, BLC
- \cdot Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
- · 2/1 Alarm in/out, 1/1 audio in/out(Built-in Mic)
- · Auto back focus(ABF)
- · Micro SD memory, PoE



quickly and accurately responds to monitoring events in a specific area. In addition to scene 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 $\pm 30\%$ 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) 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-HF5431E-E

Technical Specification

Camera

Camera		
Image Sensor	1/3" 4Megapixel progressive scan CMOS	
Effective Pixels	2688(H)x1520(V)	
RAM/ROM	512MB/32MB	
Scanning System	Progressive	
Electronic Shutter Speed	Auto/Manual, 1/3~1/100000s	
Minimum Illumination	0.02Lux/F1.2(Color,1/3s,30IRE) 0.2Lux/F1.2(Color,1/30s,30IRE) 0.01Lux/F1.2(B/W,1/3s,30IRE) 0.1Lux/F1.2(B/W,1/30s,30IRE)	
S/N Ratio	More than 50dB	
IR Distance	N/A	
IR On/Off Control	N/A	
IR LEDs	N/A	
Lens		
Lens Type	N/A	
Mount Type	C/CS	
Focal Length	N/A	
Max. Aperture	N/A	
Angle of View	N/A	
Optical Zoom	N/A	
Focus Control	N/A	
Close Focus Distance	N/A	
Pan/Tilt/Rotation		
Pan/Tilt/Rotation Range	N/A	
Intelligence		
IVS	Tripwire, Intrusion, Object Abandoned/Missing	
Advanced Intelligent 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	
Bit Rate	H.264: 24~10240Kbps H.265: 14~9984Kbps	
Day/Night	Auto(ICR) / Color / B/W	

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	N/A
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
Interoperability Streaming Method	ONVIF, PSIA, CGI Unicast / Multicast
Streaming Method	Unicast / Multicast
Streaming Method Max. User Access	Unicast / Multicast 10 Users /20 Users NAS Local PC for instant recording
Streaming Method Max. User Access Edge Storage	Unicast / Multicast 10 Users /20 Users NAS Local PC for instant recording Mirco SD card 128GB
Streaming Method Max. User Access Edge Storage Web Viewer	Unicast / Multicast 10 Users /20 Users NAS Local PC for instant recording Mirco SD card 128GB IE, Chrome, Firefox, Safari
Streaming Method Max. User Access Edge Storage Web Viewer Management Software	Unicast / Multicast 10 Users /20 Users NAS Local PC for instant recording Mirco SD card 128GB IE, Chrome, Firefox, Safari Smart PSS, DSS, Easy4ip
Streaming Method Max. User Access Edge Storage Web Viewer Management Software Smart Phone	Unicast / Multicast 10 Users /20 Users NAS Local PC for instant recording Mirco SD card 128GB IE, Chrome, Firefox, Safari Smart PSS, DSS, Easy4ip
Streaming Method Max. User Access Edge Storage Web Viewer Management Software Smart Phone Certifications	Unicast / Multicast 10 Users /20 Users NAS Local PC for instant recording Mirco SD card 128GB IE, Chrome, Firefox, Safari Smart PSS, DSS, Easy4ip IOS, Android CE (EN 60950:2000) UL:UL60950-1
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Streaming Method Max. User Access Edge Storage Web Viewer Management Software Smart Phone Certifications Certifications Interface Video Interface	Unicast / Multicast 10 Users /20 Users NAS Local PC for instant recording Mirco SD card 128GB IE, Chrome, Firefox, Safari Smart PSS, DSS, Easy4ip IOS, Android CE (EN 60950:2000) UL:UL60950-1 FCC: FCC Part 15 Subpart B 1 port(BNC,1Vp-p,75Ω) 1/1 channel In/Out, 1 Built-in Mic
Streaming Method Max. User Access Edge Storage Web Viewer Management Software Smart Phone Certifications Certifications Interface Video Interface Audio Interface RS485	Unicast / Multicast 10 Users /20 Users NAS Local PC for instant recording Mirco SD card 128GB IE, Chrome, Firefox, Safari Smart PSS, DSS, Easy4ip IOS, Android CE (EN 60950:2000) UL:UL60950-1 FCC: FCC Part 15 Subpart B 1 port(BNC,1Vp-p,75Ω) 1/1 channel In/Out, 1 Built-in Mic 1 port 2 channel In: 5mA 5VDC
Streaming MethodMax. User AccessEdge StorageWeb ViewerManagement SoftwareSmart PhoneCertificationsCertificationsInterfaceVideo InterfaceAudio InterfaceRS485Alarm	Unicast / Multicast 10 Users /20 Users NAS Local PC for instant recording Mirco SD card 128GB IE, Chrome, Firefox, Safari Smart PSS, DSS, Easy4ip IOS, Android CE (EN 60950:2000) UL:UL60950-1 FCC: FCC Part 15 Subpart B 1 port(BNC,1Vp-p,75Ω) 1/1 channel In/Out, 1 Built-in Mic 1 port 2 channel In: SmA SVDC
Streaming Method Max. User Access Edge Storage Web Viewer Management Software Smart Phone Certifications Certifications Interface Video Interface Audio Interface RS485 Alarm Electrical	Unicast / Multicast 10 Users /20 Users NAS Local PC for instant recording Mirco SD card 128GB IE, Chrome, Firefox, Safari Smart PSS, DSS, Easy4ip IOS, Android CE (EN 60950:2000) UL:UL60950-1 FCC: FCC Part 15 Subpart B 1 port(BNC,1Vp-p,75Ω) 1 /1 channel In/Out, 1 Built-in Mic 1 port 2 channel In: 5mA 5VDC 1 channel Out: 300mA 12VDC

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Environmental

Operating Conditions	-30° C \sim +60° C (-22° F \sim +140° F) / Less than 95% RH
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Ingress Protection	N/A
Vandal Resistance	N/A
Construction	
Casing	Metal
Dimensions	135.4mm×74.4mm×65.5mm (5.33"×2.93"×2.58")
Net Weight	0.66Kg (1.46lb)
Gross Weight	0.77Kg (1.7lb)

Ordering Information

Туре	Part Number	Description
4MP camera	DH-IPC-HF5431EP-E	4MP Box Network Camera, WDR, PAL
	DH-IPC-HF5431EN-E	4MP Box Network Camera, WDR, NTSC
	IPC-HF5431EP-E	4MP Box Network Camera, WDR, PAL
	IPC-HF5431EN-E	4MP Box Network Camera, WDR, NTSC
	PFB110W	Wall mount
Accessories (optional)	PFB121W	Wall mount
	LR1002	ePoE Over Coax Converter

Accessories

Optional:

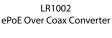


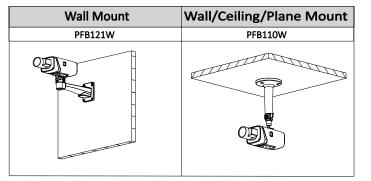


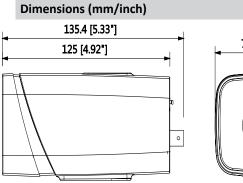


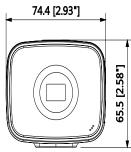
PFB110W Wall Mount

PFB121W Wall Mount ePoE Ove











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