

# DH-IPC-HFW8232E-ZE

2MP Starlight IR Bullet Network Camera





### System Overview

Ultra series adopts high performance DSP and Sony advanced image sensor technology, which can provide excellent image effects for users. With Dahua advanced software algorithm, the series is able to support people counting and heat map which brings extra business analysis value for customers. In addition, IP67, IK10 and heater compliance ensure the series can be applied in a harsher environment.

### 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.

### Starlight Technology

For challenging low-light applications, Dahua's Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing color details in low light down to 0.002lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

### Wide dynamic range (WDR)

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.  $\cdot$  1/1.8" 2Megapixel progressive scan CMOS

- · H.265&H.264 triple-stream encoding
- · 50/60fps@1080P(1920×1080)
- · WDR(120dB), Day/Night(ICR), 3DNR,AWB,AGC,BLC
- Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
- · 4.1mm ~16.4mm zoom lens
- $\cdot$  Max. IR LEDs Length 50m
- · Micro SD memory, IP67, IK10, PoE+



people counting and heat map besides basic IVS functions. These two functions can be applied to business intelligence and bring extra values to customers. It is available to acquire daily, weekly, monthly and yearly people flow via people counting and output data report. Heat map can be based on a moving object in time of space movement for analysis, find the most active area and output the report, which is to provide valuable data support for commercial applications.

### Smart Scene Adaptive (SSA)

Smart Scene Adaptive (SSA) is an intelligent image technology, developed by Dahua that automatically evaluates and compensates for changes in the luminance of a scene. SSA automatically regulates the exposure parameters to improve image quality in a backlit scene, especially in scenes with traffic lights or headlights.

### Smart Codec (H.265+ & H.264+)

Smart Codec is the optimized implementation of standard video compression (H.265 & H.264) 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 Codec technology reduces bit rate and storage requirements by up to 70% when compared to the standard video compression.

### Environmental & Protection

With a temperature range of-40 °C to +60 °C (-40 °F to +140 °F), the camera is designed for extreme temperature environments. Supporting  $\pm$ 25% input voltage tolerance, this camera suits even 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 complies with an IK10 impact rating making it capable of withstanding the equivalent of 5 kg (11.02 lbs) of force dropped from a height of 40 cm (15.75 in.)

Business intelligent analysis (People counting, Heatmap) Dahua Camera also supports more advanced intelligent features such as

# Ultra Series | DH-IPC-HFW8232E-ZE

### **Technical Specification**

Resolution

Frame Rate

Camera					
Image Sensor		1/1.8" 2Megapixel progressive scan CMOS			
Effective Pixels		1920(H)x1080(V)			
RAM/ROM		1024MB/128MB			
Scanning System		Progressive			
Electronic Shutter Speed		Auto/Manual, 1/3~1/100000s			
Minimum Illumination		0.002Lux/F1.53 (Color,1/3s,30IRE) 0.01Lux/F1.53 (Color,1/30s,30IRE) 0Lux/F1.53(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		Motorized /Auto Iris(HALL)			
Mount Type		Board-in			
Focal Length		4.1~16.4mm motorized			
Max. Aperture		F1.53			
Angle of View		H: 104°~33 ° V:57 ° ~18 °			
Optical Zoom		4x			
Focus Control		Motorized			
Predictive Focus Algorithm (PFA)		Support			
Close Focus Distance		0.5m(1.64ft)			
DORI	Lens	Detect	Observe	Recognize	Identify
Distance	W T	57m(187ft) 137m(449ft)	23m(75ft) 55m(180ft)	11m(36ft) 27m(89ft)	6m(20ft) 14m(49ft)
Pan/Tilt/Ro		13711(44510)	33III(180III)	2711(0511)	1411(4511)
Pan/Tilt/Rotati		Pan:0°~360°;	Tilt:0°~90°: Ro	otation:0°~36	D°
Intelligence	-	,	,		
Event Trigger		Motion detection, Video tampering , Scene changing, Network disconnection , IP address conflict, Illegal Access, Storage anomaly			
IVS		Tripwire, Intrusion, Object Abandoned/Missing			
Advanced Intelligent Functions		Face Detection, People Counting, Heat Map			
Video					
Compression		H.265/H.264/H.264B/H.264H/MJPEG(Sub Stream)			
Smart Codec		Support H.265+/H.264+			
Streaming Capability		3 Streams			
		1080P(1920×1080)/ 1.3M(1280×960)/			

720P(1280x720)/ D1(704×576/704×480) / VGA(640x480)/ CIF(352×288/342x240) Main Stream: 1080P(1~50/60fps)

Sub Stream: D1 (1 ~ 50/60fps) Third Stream: 1080P(1~50/60fps)

Bit Rate Control	CBR/VBR				
Bit Rate	H.264: 24~ 10240Kbps H.265: 14~ 6144Kbps				
Day/Night	Auto(ICR) / Color / B/W				
BLC Mode	BLC / HLC / WDR(120dB)/ SSA				
White Balance	Auto/Natural/Street Lamp/Outdoor/Manual				
Gain Control	Auto/Manual				
Noise Reduction	3D DNR				
Motion Detection	Off / On (4 Zone, Rectangle)				
Region of Interest	Off / On (4 Zone)				
Electronic Image Stabilization (EIS)	Support				
Smart IR	Support				
Defog	Support				
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 (100/1000Base-T)				
Protocol	HTTP;HTTPs;TCP;ARP;RTSP;RTP;UDP;RTCP;SMTP; FTP;DHCP;DNS;DDNS;PPPOE;IPv4/v6;QoS;UPnP; NTP;Bonjour;IEEE 802.1x;Multicast;ICMP;IGMP;S NMP;TLS				
Interoperability	ONVIF Profile S&G, API				
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, DMSS				
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: 1A 30VDC / 0.5A 50VAC				

# Ultra Series | DH-IPC-HFW8231E-ZE

### Electrical

Power Supply	DC12V, PoE+(802.3at)(Class 4)			
Power Consumption	<13W			
Environmental				
Operating Conditions	-40° C $^{\sim}$ +60° C (-40° F $^{\sim}$ +140° F) / Less than 95% R			
Storage Conditions	-40° C $^{\sim}$ +60° C (-40° 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	1.12Kg (2.47lb)			
Gross Weight	1.52Kg (3.35lb)			

### **Ordering Information**

Туре	Part Number	Description
2MP camera	DH-IPC- HFW8232EP-ZE	2MP Starlight IR Bullet Network Camera,PAL
	DH-IPC- HFW8232EN-ZE	2MP Starlight IR Bullet Network Camera,NTSC
	IPC-HFW8232EP- ZE	2MP Starlight IR Bullet Network Camera,PAL
	IPC-HFW8232EN- ZE	2MP Starlight IR Bullet Network Camera,NTSC
Accessories (optional)	PFA121	Junction box
	PFA152-E	Pole Mount
	LR1002	ePoE Over Coax Converter

# Accessories

# **Optional:**



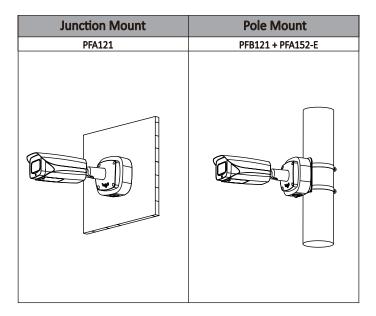




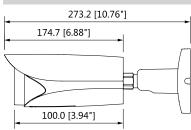
PFA121 Junction box

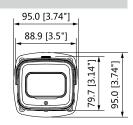
PFA152-E Pole Mount

LR1002 ePoE Over Coax Converter



## Dimensions (mm/inch)







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