

# DH-IPC-HFW8331E-Z

3MP WDR IR Bullet Network Camera



- 1/2.8" 3Megapixel progressive scan STARVIS™ CMOS
- H.265&H.264 triple-stream encoding
- 50/60fps@3M(2048×1536)
- WDR(140dB), Day/Night(ICR), 3DNR,AWB,AGC,BLC
- Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
- 2.7mm ~13.5mm motorized lens
- Max. IR LEDs Length 50m
- Micro SD memory,IP67,IK10,PoE+

## System Overview

Ultra series product adopts high performance DSP and Sony advanced image sensor technology, which can provide excellent image effects for users such as UHD resolution, starlight and super WDR etc. The series utilizes Dahua advanced software algorithm, which is able to support people counting and heat map, bringing extra business analysis value for customers; IP67, IK10 and heater compliance enables the product to be applied in a more harsh environment.

## Functions

### Starlight Technology

Featuring Dahua's Starlight Technology, this camera is ideal for applications with challenging lighting conditions. Its low-light performance delivers usable video with minimal ambient light. Even in extreme low-light conditions, Starlight Technology is capable of delivering color images in near complete darkness (0.005 lux).

### Ultra WDR

Standard WDR/HDR camera can provide 120dB dynamic range,However, for some scenes with wider contrast range, 120dB is slightly insufficient. By adopting the latest technology, Dahua Cameras can provide an amazing dynamic range up to140dB.

### Intelligent Video System (IVS)

Dahua camera has a built-in video analysis based on intelligent algorithms and can achieve the following:Tripwire,Intrusion,Abandoned/Missing can timely, quickly and accurately respond to monitoring events in specific area. It enhances monitoring efficiency. At the same time, the camera can support face detection,it can quickly capture a face and upload the image to the server. In addition the camera also supports intelligent tamper detection,through dramatic changes in the scene it will send out warning information to ensure effective monitoring.

### Business intelligent analysis (People counting, Heatmap)

Dahua Camera also supports more advanced intelligent features such as 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 a Dahua self-developed intelligent image technology, the camera automatically evaluates the change in scene, in particular strong lights.In a strong backlight environment, it will automatically regulate exposure parameters to get better image quality. This can effectively address the impact of traffic lights, providing excellent video quality.

### HEVC (H.265)

H.265 ITU-T VCEG is a new video coding standard. H.265 Following standard developed around the existing video coding standard H.264 , some retain the original technology , while some of the relevant technology to improve the new technology uses advanced technology to improve the relationship between the code stream , encoding quality , and the delay between algorithm complexity , optimize settings specific contents include : Improve compression efficiency , improve the robustness and error recovery capabilities, real-time to reduce the delay, reduce channel acquisition time and a random access delay , reduce complexity , etc

### Environmental

With a temperature range of -40 °C to +60 °C (-40 °F to +140 °F), the camera is designed for extreme temperature environments. The camera complies to an IK10 impact rating making it capable of withstanding the equivalent of 55 kg (120 lbs) of force. Subjected and certified to rigorous dust and water immersion tests, the IP67 rating makes it suitable for demanding outdoor applications.

Technical Specification						Day/Night		Auto(ICR) / Color / B/W	
Camera						BLC Mode		BLC / HLC / WDR(140dB)/ SSA	
Image Sensor		1/2.8”3Megapixel progressive scan CMOS				White Balance		Auto/Natural/Street Lamp/Outdoor/Manual	
Effective Pixels		2048(H)x1536(V)				Gain Control		Auto/Manual	
RAM/ROM		1024MB/128MB				Noise Reduction		3D DNR	
Scanning System		Progressive				Motion Detetion		Off / On (4 Zone, Rectangle)	
Electronic Shutter Speed		Auto/Manual, 1/3~1/100000s				Region of Interest		Off / On (4 Zone)	
Minimum Illumination		0.005Lux/F1.4 (Color,1/3s,30IRE) 0.03Lux/F1.4 (Color,1/30s,30IRE) 0Lux/F1.4(IR on)				Electronic Image Stabilization (EIS)		Support	
S/N Ratio		More than 50dB				Smart IR		Support	
IR Distance		Distance up to 50m(164ft)				Defog		Support	
IR On/Off Control		Auto/ Manual				Digital Zoom		16x	
IR LEDs		4				Flip		0°/90°/180°/270°	
Lens						Mirror		Off / On	
Lens Type		Motorized /Auto Iris(HALL)				Privacy Masking		Off / On (4 Area, Rectangle)	
Mount Type		Board-in				Audio			
Focal Length		2.7~13.5mm motorized				Compression		G.711a/G.711Mu/AAC/ G.726	
Max. Aperture		F1.4				Network			
Angle of View		H: 101°~31°, V:54°~17°				Ethernet		RJ-45 (100/1000Base-T)	
Optical Zoom		5x				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	
Focus Control		Motorized				Interoperability		ONVIF, PSIA, CGI	
Close Focus Distance		0.3m(0.98ft)				Streaming Method		Unicast / Multicast	
DORI Distance	Lens	Detect	Observe	Recognize	Identify	Max. User Access		10 Users/20 Users	
	W	54m(177ft)	22m(72ft)	11m(36ft)	5m(16ft)	Edge Storage		NAS Local PC for instant recording Mirco SD card 128GB	
	T	166m(545ft)	66m(217ft)	33m(108ft)	17m(56ft)	Web Viewer		IE, Chrome, Firefox, Safari	
Pan/Tilt/Rotation						Management Software		Smart PSS, DSS, Easy4ip	
Pan/Tilt/Rotation Range		Pan:0°~360°; Tilt:0°~90°; Rotation:0°~360°				Smart Phone		IOS, Android	
Intelligence						Certifications			
IVS		Tripwire, Intrusion, Object Abandoned/Missing				Certifications		CE (EN 60950:2000) UL:UL60950-1 FCC: FCC Part 15 Subpart B	
Advanced Intelligent Functions		Face Detection, People Counting, Heat Map				Interface			
Video						Video Interface		1 Port(For adjustment only)	
Compression		H.265+/H.265/H.264+/H.264				Audio Interface		1/1 channel In/Out	
Streaming Capability		3 Streams				RS485		N/A	
Resolution		3M(2048x1536)/ 1080P(1920x1080)// 1.3M(1280x960)/ 720P(1280x720)// D1(704x576/704x480)/ VGA(640x480)// CIF(352x288/342x240)				Alarm		2 channel In: 5mA 5VDC 1 channel Out: 1A 30VDC / 0.5A 50VAC	
Frame Rate		Main Stream: 3M(1~50/60fps)  Sub Stream: D1 (1 ~ 50/60fps)  Third Stream: 1080P(1~50/60fps)				Electrical			
Bit Rate Control		CBR/VBR				Power Supply		DC12V, PoE+ (802.3at)(Class 4)	
Bit Rate		H.264: 24~ 10240Kbps H.265: 14~ 9216Kbps				Power Consumption		<13W	

Environmental

Operating Conditions	-40° C ~ +60° C (-40° F ~ +140° F) / Less than 95% RH
Storage Conditions	-40° C ~ +60° C (-40° F ~ +140° F) / Less than 95% RH
Ingress Protection	IP67
Vandal Resistance	IK10

Construction

Casing	Metal
Dimensions	273.2mm×95.0mm×96.4mm (10.76"×3.74"×3.79")
Net Weight	1.12Kg (2.47lb)
Gross Weight	1.52Kg (3.35lb)

Ordering Information

Type	Part Number	Description
3MP camera	DH-IPC-HFW8331EP-Z	3MP WDR IR Bullet Network Camera,PAL
	DH-IPC-HFW8331EN-Z	3MP WDR IR Bullet Network Camera,NTSC
	IPC-HFW8331EP-Z	3MP WDR IR Bullet Network Camera,PAL
	IPC-HFW8331EN-Z	3MP WDR IR Bullet Network Camera,NTSC
Accessories (optional)	PFA121	Junction box
	PFA152	Pole Mount

Accessories

Optional:



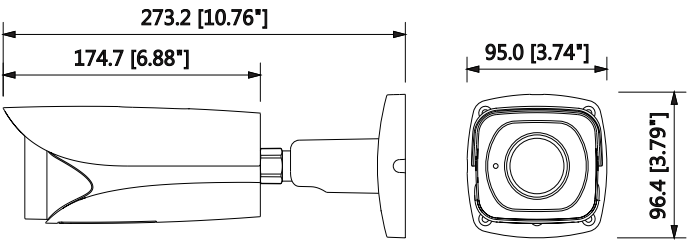
PFA121  
Junction box



PFA152  
Pole mount

Junction Mount	Pole Mount
PFA121	PFB121 + PFA152

Dimensions (mm/inch)



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