

# DH-IPC-HFW81230E-Z

## 12MP IR Bullet Network Camera



- 1/1.7" 12Megapixel progressive scan CMOS
- H.265&H.264 triple-stream encoding
- 20fps@12M(4000×3000),25/30fps@4K(3840×2160)
- DWDR, Day/Night(ICR), 3DNR,AWB,AGC,BLC
- Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
- 4.1mm ~16.4mm 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

#### 4K technology

4K technology as a revolutionary breakthrough in image, which enhance the expressive image of essence, allowing users to experience the best picture quality brought about by the visual feast . For the purposes of 4K surveillance with four times the 1080P resolution, presented to the user with more details . Under the same scenario by raising the pixels , reduce the camera cost.

#### E-PTZ function

E- PTZ ( electronic-PTZ ( pan / tilt / zoom function ) . Is a virtual technology . Through E- PTZ function can be achieved on the local area pan, zoom and other functions . Mostly It appeared in Megapixel or more cameras.

#### 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					
Camera					
Image Sensor	1/1.7" 12Megapixel progressive scan CMOS				
Effective Pixels	4000(H)x3000(V)				
RAM/ROM	1024MB/128MB				
Scanning System	Progressive				
Electronic Shutter Speed	Auto/Manual, 1/3~1/100000s				
Minimum Illumination	0.01Lux/F1.53(Color,1/3s,30IRE) 0.1Lux/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: 85°~35°, V:63°~26°				
Optical Zoom	4x				
Focus Control	Motorized				
Close Focus Distance	0.5m(1.64ft)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	W	115m(377ft)	46m(151ft)	23m(75ft)	11m(36ft)
	T	227m(909ft)	111m(364ft)	55m(180ft)	28m(92ft)
Pan/Tilt/Rotation					
Pan/Tilt/Rotation Range	Pan:0°~360°; Tilt:0°~90°; Rotation:0°~360°				
Intelligence					
IVS	Tripwire, Intrusion, Object Abandoned/Missing				
Advanced Intelligent Functions	Face Detection, People Counting, Heat Map				
Video					
Compression	H.265+/H.265/H.264+/H.264				
Streaming Capability	3 Streams				
Resolution	12M(4000x3000)/ 4K(3840x2160)/ 6M(3072x2048)/ 5M(2560x1920)/ 3M(2048x1536)/ 3M(2304x1296)/ 1080P(1920x1080)/ 1.3M(1280x960)/ 720P(1280x720)/ D1(704x576/704x480) / VGA(640x480)/ CIF(352x288/342x240)				
Frame Rate	Main Stream: 12M(1~20fps)/ 4K(1~25/30fps)				
	Sub Stream: D1 (1 ~ 25/30fps)				
	Third Stream: 1080P(1~25/30fps)				
Bit Rate Control	CBR/VBR				
Bit Rate	H.264: 24~ 16384Kbps H.265: 14~ 9984Kbps				
Day/Night	Auto(ICR) / Color / B/W				
BLC Mode	BLC / HLC / DWDR/ SSA				
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)	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;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: 1A 30VDC / 0.5A 50VAC				
Electrical					
Power Supply	DC12V, PoE+(802.3at)(Class 4)				
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
12MP camera	DH-IPC-HFW81230EP-Z	12MP IR Bullet Network Camera,PAL
	DH-IPC-HFW81230EN-Z	12MP IR Bullet Network Camera,NTSC
	IPC-HFW81230EP-Z	12MP IR Bullet Network Camera,PAL
	IPC-HFW81230EN-Z	12MP IR Bullet Network Camera,NTSC
Accessories (optional)	PFA121	Junction box
	PFA152	Pole Mount

Accessories

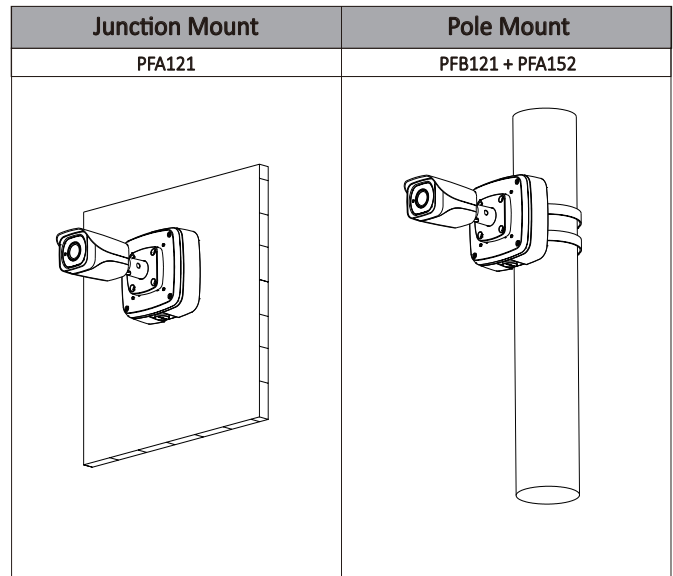
Optional:



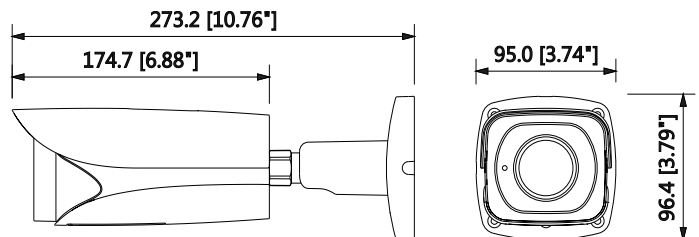
PFA121  
Junction box



PFA152  
Pole mount



Dimensions (mm/inch)



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