DH-IPC-HFW81230E-Z
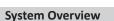
12MP IR Bullet Network Camera

· 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.

Ultra Series | DH-IPC-HFW81230E-Z

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(1920×1080)/ 1.3M(1280x960)/ 720P(1280x720)/ D1(704×576/704x480) / VGA(640x480)/ CIF(352×288/342x240)
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

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
Strorage 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

Junction Mount	Pole Mount
PFA121	PFB121 + PFA152

Dimensions (mm/inch)

273.2 [10.76"]
174.7 [6.88"]
95.0 [3.74"]
96.4 [3.79"]