DH-IPC-HF8331F-E

3MP WDR Box 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
- Auto back focus(ABF)
- Micro SD memory, PoE

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.

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.

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 to 140dB.

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 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.

Technical Specification

Camera

Image Sensor	1/2.8" 3Megapixel progressive scan CMOS
Effective Pixels	2048(H)x1536(V)
RAM/ROM	1024MB/128MB
Scanning System	Progressive
Minimum Illumination	0.002Lux/F1.2(Color,1/3s,30IRE) 0.02Lux/F1.2(Color,1/30s,30IRE) 0.001Lux/F1.2(B/W,1/3s,30IRE) 0.01Lux/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

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
Resolution	3M(2048x1536)/ 1080P(1920×1080)/ 1.3M(1280x960)/ 720P(1280x720)/ D1(704×576/704x480)/ VGA(640x480)/ CIF(352×288/342x240)
Frame Rate	Main Stream: 3M(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~ 9216Kbps
Day/Night	Auto(ICR) / Color / B/W
BLC Mode	BLC / HLC / WDR(140dB)/ 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	N/A
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;SNMP;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(BNC,1Vp-p,75Ω)
Audio Interface	2/1 channel In/Out, 1 Built-in Mic
RS485	1 port
Alarm	2 channel In: 5mA 5VDC 2 channel Out: 1A 30VDC / 0.5A 50VAC

Electrical

Power Supply	DC12V, AC24V, PoE(802.3af)(Class 0)
Power Consumption	<6.6W
Power Out	165mA 12VDC

Environmental

Operating Conditions	-30° C ~ +60° C (-22° F ~ +140° F) / Less than 95% RH
Storage Conditions	-30° C ~ +60° C (-22° F ~ +140° F) / Less than 95% RH
Ingress Protection	N/A
Vandal Resistance	N/A

Construction

Casing	Metal
Dimensions	161.6mm×85.5mm×74.0mm (6.36”×3.37”×2.91”)
Net Weight	0.72Kg (1.59lb)
Gross Weight	0.92Kg (2.03lb)

Ordering Information

Type	Part Number	Description
3MP camera	DH-IPC-HF8331FP-E	3MP WDR Box Network Camera, PAL
	DH-IPC-HF8331FN-E	3MP WDR Box Network Camera, NTSC
	IPC-HF8331FP-E	3MP WDR Box Network Camera, PAL
	IPC-HF8331FN-E	3MP WDR Box Network Camera, NTSC
Accessories (optional)	PFB110W	Wall mount
	PFB121W	Wall mount
	PLZ1040-D	2.7~12mm Lens
	PFL0550-E6D	5~50mm Lens
	PFH610 Series	Housings

Accessories

Optional:

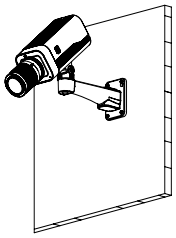
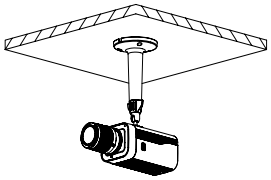
PFB110W
Wall mount

PFB121W
Wall mount

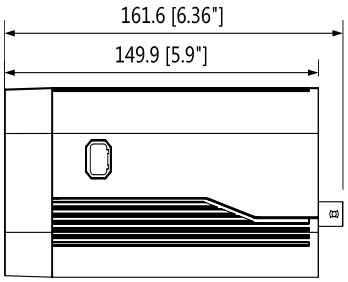
PLZ1040-D

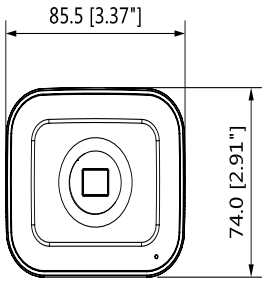
PFL0550-E6D

PFH610 Series

Wall Mount	Wall/Ceiling/Plane Mount
PFB121W	PFB110W
	

Dimensions (mm/inch)





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