

DH-IPC-HFW8331E-ZE

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 zoom lens
- Max. IR LEDs Length 50m
- Micro SD memory,IP67,IK10,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. 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 0.005lux. 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.

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 ±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.)

Technical Specification						Bit Rate Control		CBR/VBR	
Camera						Bit Rate		H.264: 24~ 10240Kbps H.265: 14~ 9216Kbps	
Image Sensor		1/2.8”3Megapixel progressive scan CMOS				Day/Night		Auto(ICR) / Color / B/W	
Effective Pixels		2048(H)x1536(V)				BLC Mode		BLC / HLC / WDR(140dB)/ SSA	
RAM/ROM		1024MB/128MB				White Balance		Auto/Natural/Street Lamp/Outdoor/Manual	
Scanning System		Progressive				Gain Control		Auto/Manual	
Electronic Shutter Speed		Auto/Manual, 1/3~1/100000s				Noise Reduction		3D DNR	
Minimum Illumination		0.005Lux/F1.4 (Color,1/3s,30IRE) 0.03Lux/F1.4 (Color,1/30s,30IRE) 0Lux/F1.4(IR on)				Motion Detection		Off / On (4 Zone, Rectangle)	
S/N Ratio		More than 50dB				Region of Interest		Off / On (4 Zone)	
IR Distance		Distance up to 50m(164ft)				Electronic Image Stabilization (EIS)		Support	
IR On/Off Control		Auto/ Manual				Smart IR		Support	
IR LEDs		4				Defog		Support	
Lens						Digital Zoom		16x	
Lens Type		Motorized /Auto Iris(HALL)				Flip		0°/90°/180°/270°	
Mount Type		Board-in				Mirror		Off / On	
Focal Length		2.7~13.5mm motorized				Privacy Masking		Off / On (4 Area, Rectangle)	
Max. Aperture		F1.4				Audio			
Angle of View		H: 99 °~28 ° V:67 ° ~21 °				Compression		G.711a/G.711Mu/AAC/ G.726	
Optical Zoom		5x				Network			
Focus Control		Motorized				Ethernet		RJ-45 (100/1000Base-T)	
Predictive Focus Algorithm (PFA)		Support				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	
Close Focus Distance		0.3m(0.98ft)				Interoperability		ONVIF Profile S&G, API	
DORI Distance	Lens	Detect	Observe	Recognize	Identify	Streaming Method		Unicast / Multicast	
	W	54m(177ft)	22m(72ft)	11m(36ft)	5m(16ft)	Max. User Access		10 Users/20 Users	
	T	166m(545ft)	66m(217ft)	33m(108ft)	17m(56ft)	Edge Storage		NAS Local PC for instant recording Mirco SD card 128GB	
Pan/Tilt/Rotation						Web Viewer		IE, Chrome, Firefox, Safari	
Pan/Tilt/Rotation Range		Pan:0°~360°; Tilt:0°~90°; Rotation:0°~360°				Management Software		Smart PSS, DSS, DMSS	
Intelligence						Smart Phone		IOS, Android	
Event Trigger		Motion detection, Video tampering , Scene changing, Network disconnection , IP address conflict, Illegal Access,Storage anomaly				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.264/H.264B/H.264H/MJPEG(Sub Stream)				Audio Interface		1/1 channel In/Out	
Smart Codec		Support H.265+/H.264+				RS485		N/A	
Streaming Capability		3 Streams				Alarm		2 channel In: 5mA 5VDC 1 channel Out: 1A 30VDC / 0.5A 50VAC	
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)							

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×95.0mm (10.76"×3.74"×3.74")
Net Weight	1.12Kg (2.47lb)
Gross Weight	1.52Kg (3.35lb)

Ordering Information

Type	Part Number	Description
3MP camera	DH-IPC-HFW8331EP-ZE	3MP WDR IR Bullet Network Camera,PAL
	DH-IPC-HFW8331EN-ZE	3MP WDR IR Bullet Network Camera,NTSC
	IPC-HFW8331EP-ZE	3MP WDR IR Bullet Network Camera,PAL
	IPC-HFW8331EN-ZE	3MP WDR 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

Junction Mount	Pole Mount
PFA121	PFA121 + PFA152-E

Dimensions (mm/inch)

