

DH-IPC-HDBW8231E-ZE

2MP WDR IR Dome Network Camera



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

- 1/2.8" 2Megapixel progressive scan STARVIS™ CMOS
- H.265&H.264 triple-stream encoding
- 50/60fps@1080P(1920×1080)
- WDR(140dB), Day/Night(ICR), 3DNR,AWB,AGC,BLC
- Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
- 2.7mm ~12mm zoom lens
- Max. IR LEDs Length 50m
- Micro SD memory,IP67,IK10,PoE+



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						
Camera						
Image Sensor		1/2.8" 2Megapixel progressive scan CMOS				
Effective Pixels		1920(H)x1080(V)				
RAM/ROM		1024MB/128MB				
Scanning System		Progressive				
Electronic Shutter Speed		Auto/Manual, 1/3~1/100000s				
Minimum Illumination		0.005Lux/F1.4 (Color,1/3s,30IRE) 0.03Lux/F1.4 (Color,1/30s,30IRE) 0Lux/F1.4(IR on)				
S/N Ratio		More than 50dB				
IR Distance		Distance up to 50m(164ft)				
IR On/Off Control		Auto/ Manual				
IR LEDs		3				
Lens						
Lens Type		Motorized /Auto Iris(HALL)				
Mount Type		Board-in				
Focal Length		2.7~12mm motorized				
Max. Aperture		F1.4				
Angle of View		H: 114 °~36 ° V:61 ° ~20 °				
Optical Zoom		4x				
Focus Control		Motorized				
Predictive Focus Algorithm (PFA)		Support				
Close Focus Distance		0.5m(1.64ft)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify	
	W	49m(162ft)	20m(66ft)	10m(33ft)	5m(16ft)	
	T	125m(410ft)	50m(164ft)	25m(82ft)	13m(43ft)	
Pan/Tilt/Rotation						
Pan/Tilt/Rotation Range		Pan:0°~355°; Tilt:0°~65°; Rotation:0°~355°				
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		1080P(1920x1080)/ 1.3M(1280x960)/ 720P(1280x720)/ D1(704x576/704x480) / VGA(640x480)/ CIF(352x288/342x240)				
Frame Rate		Main Stream: 1080P(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~ 6144Kbps	
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		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;RTCP;SMTP; FTP;DHCP;DNS;DDNS;PPPOE;IPv4/v6;QoS;UPnP; NTP;Bonjour;IEEE 802.1x;Multicast;ICMP;IGMP;S NMP;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(For adjustment only)	
Audio Interface		1/1 channel In/Out	
RS485		N/A	
Alarm		1 channel In: 5mA 5VDC 1 channel Out: 1A 30VDC / 0.5A 50VAC	

Electrical

Power Supply	DC12V, AC24V, PoE+ (802.3at)(Class 4)
Power Consumption	<18W

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

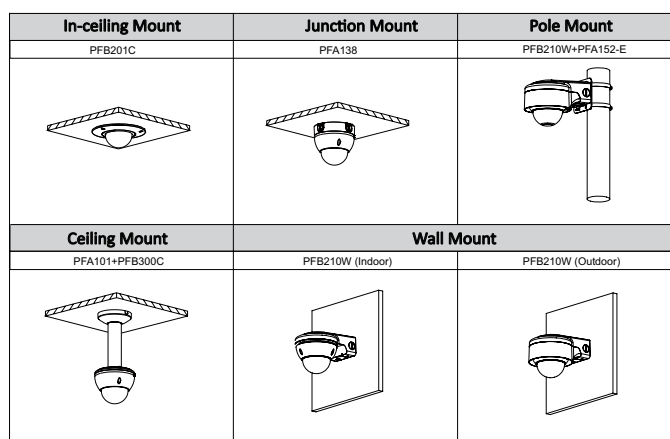
Casing	Metal
Dimensions	Φ159.1mm×117.9mm(Φ6.26"×4.64")
Net Weight	0.96kg(2.12lb)
Gross Weight	1.75 kg(3.56lb)

Ordering Information

Type	Part Number	Description
2MP camera	DH-IPC-HDBW8231EP-ZE	2MP WDR IR Dome Network Camera, PAL
	DH-IPC-HDBW8231EN-ZE	2MP WDR IR Dome Network Camera, NTSC
	IPC-HDBW8231EP-ZE	2MP WDR IR Dome Network Camera, PAL
	IPC-HDBW8231EN-ZE	2MP WDR IR Dome Network Camera, NTSC
Accessories (included)	PFA138	Junction Box
Accessories (optional)	PFB210W	Wall mount
	PFB201C	In-ceiling mount
	PFB300C	Ceiling mount
	PFA152-E	Pole mount
	PFA101	Mount adapter
	LR1002	ePoE Over Coax Converter

Accessories

Optional:



Dimensions (mm/inch)

