DH-IPC-HDBW8231E-ZE

2MP WDR IR Dome Network Camera

· 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+

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

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(1920×1080)/ 1.3M(1280x960)/ 720P(1280x720)/ D1(704×576/704x480) / VGA(640x480)/ CIF(352×288/342x240)
Frame Rate	Main Stream: 1080P(1~50/60fps)
	Sub Stream: D1 (1 ~ 50/60fps)
	Third Stream: 1080P(1~50/60fps)

Bit Rate Control

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:

PFB201C
In-ceiling Mount

PFA138
Juction Mount

PFB210W
Wall Mount

PFA152-E
Pole Mount

PFB300C
Ceiling Mount

PFA101
Mount adapter

LR1002
ePoE Over Coax Converter

In-ceiling Mount	Junction Mount	Pole Mount
PFB201C	PFA138	PFB210W+PFA152-E
Ceiling Mount	**Wall Mount**	
PFA101+PFB300C	PFB210W (Indoor)	PFB210W (Outdoor)

Dimensions (mm/inch)

159.1 [6.26"]
117.9 [4.64"]
⌀159.1 [⌀6.26"]
⌀140.0 [⌀5.51"]
3-⌀4.7 [⌀0.19"]

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