

# DH-IPC-HDBW8331E-Z5E

3MP 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" 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
- $\cdot$  Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
- · 7mm ~35mm zoom lens
- $\cdot$  Max. IR LEDs Length 100m
- · 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  $\pm$ 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.)



# Ultra Series | DH-IPC-HDBW8331E-Z5E

#### **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			
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 100m(328ft)			
IR On/Off Control		Auto/ Manual			
IR LEDs		3			
Lens					
Lens Type		Motorized /Auto Iris(HALL)			
Mount Type		Board-in			
Focal Length		7~35mm motorized			
Max. Aperture		F1.4			
Angle of View		H: 32°~11°, V:24°~8.6°			
Optical Zoom		5x			
Focus Control		Motorized			
Predictive Focus Algorithm (PFA)		Support			
Close Focus Distance		0.3m(0.98ft)			
DORI	Lens	Detect	Observe	Recognize	Identify
Distance	W T	152m(498ft) 496m(1627ft)	60m(196ft) 192m(630ft)	30m(98ft) 99m(324ft)	15m(49ft) 49m(162ft)
Pan/Tilt/Rotation		13 011(102)10)	152(05014)	55(52	.5(10210)
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)			

Support H.265+/H.264+

3M(2048x1536)/ 1080P(1920×1080)/ 1.3M(1280x960)/ 720P(1280x720)/ D1(704×576/704x480)/

VGA(640x480)/ CIF(352×288/342x240) Main Stream: 3M(1~50/60fps)

Sub Stream: D1 (1 ~ 50/60fps) Third Stream: 1080P(1~50/60fps)

3 Streams

Smart Codec

Resolution

Frame Rate

Streaming Capability

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	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		

# Ultra Series | DH-IPC-HDBW8331E-Z5E

#### Electrical

Power Supply	DC12V,AC24V, PoE+ (802.3at)(Class 4)	
Power Consumption	<18W	
Environmental		
Operating Conditions	-40° C $^{\sim}$ +60° C (-40° F $^{\sim}$ +140° F) / Less than 95% RI	
Storage Conditions	-40° C $^{\sim}$ +60° C (-40° F $^{\sim}$ +140° F) / Less than 95% RF	
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**

-			
Туре	Part Number	Description	
3MP camera	DH-IPC- HDBW8331EP-Z5E	3MP WDR IR Dome Network Camera,PAL	
	DH-IPC- HDBW8331EN-Z5E	3MP WDR IR Dome Network Camera,NTSC	
	IPC-HDBW8331EP- Z5E	3MP WDR IR Dome Network Camera,PAL	
	IPC-HDBW8331EN- Z5E	3MP 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:**



PFA138





PFB201C In-ceiling Mount Juction Mount

PFB300C

Ceiling Mount

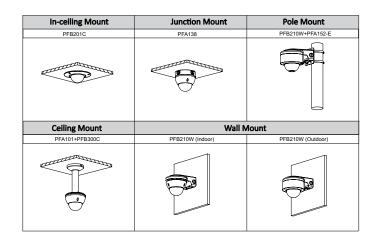
PFB210W Wall Mount

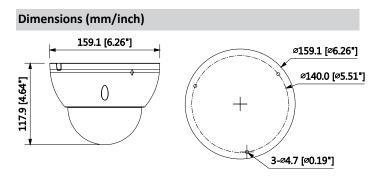
PFA152-F Pole Mount

R.

PFA101 Mount adapter

LR1002 ePoE Over Coax Converter







Rev 001.001 © 2018 Dahua. All rights reserved. Design and specifications are subject to change without notice.