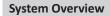


# DH-IPC-HDBW5231E-ZE

2MP WDR IR Dome Network Camera





With upgraded H.265 encoding technology, Eco-savvy series brings high efficient video compression capability. It can save bandwidth and storage. Meanwhile, the series features starlight, smart IR technology and intelligent image analysis techniques. This series supports reminder function, meanwhile fully protected from dust and water, certified to IP67 and vandal resistant to IK10 standard.

### 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 0.006lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

### Wide Dynamic Range

The camera achieves vivid images, even in the most intense contrast lighting conditions, using industry-leading wide dynamic range (WDR) technology. For applications with both bright and low lighting conditions that change quickly, true WDR (120 dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

- · 1/2.8" 2Megapixel progressive scan STARVIS™ CMOS
- · H.265&H.264 triple-stream encoding
- · 50/60fps@1080(1920×1080)
- · Smart Detection supported
- · WDR(120dB), Day/Night(ICR), 3DNR, AWB, AGC, BLC
- $\cdot$  Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
- · 2.7mm ~13.5mm motorized lens
- $\cdot$  1/1 Alarm in/out, 1/1 audio in/out
- Max. IR LEDs Length 50m
- · Micro SD memory, IP67, IK10, PoE+



### Intelligent Video System (IVS)

IVS is a built-in video analytic algorithm that delivers intelligent functions to monitor a scene for Tripwire violations, intrusion detection, and abandoned or missing objects. A camera with IVS quickly and accurately responds to monitoring events in a specific area. In addition to scene analytics, the camera supports face detection to quickly capture a face and upload the image to a server. The camera also offers tamper detection by recognizing a dramatic scene change and generating a warning message to inspect the camera.

### Protection(IP67, IK10, wide voltage)

The camera allows for  $\pm 30\%$  input voltage tolerance, suitable for 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 is the choice for installation in even the most unforgiving environments.

### Smart H.265+

Smart H.265+ is the optimized implementation of the H.265 codec 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 H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.



# Eco Savvy 3.0 | DH-IPC-HDBW5231E-ZE

### **Technical Specification**

Camera					
Image Sensor		1/2.8" 2Megapixel progressive scan CMOS			
Effective Pixels		1920(H) x 1080(V)			
RAM/ROM		256MB/32MB			
Scanning System		Progressive			
Electronic Shutter Speed		Auto/Manual, 1/3~1/100000s			
Minimum Illumination		0.006Lux/F1.4 ( Color,1/3s,30IRE) 0.05Lux/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(DC)			
Mount Type		Board-in			
Focal Length		2.7mm~13.5mm			
Max. Aperture		F1.4			
Angle of View		H: 101°~31°, V:54°~17°			
Optical Zoom		5x			
Focus Control		Motorized			
Close Focus Distance		0.3m			
	Lens	Detect	Observe	Recognize	Identify
DORI Distance	W	44m(144ft)	18m(59ft)	9m(29ft)	4m(13ft)
	т	143m(469ft)	57m(187ft)	28m(92ft)	14m(46ft)
Pan/Tilt/Rotation					
Pan/Tilt/Rotation Range		Pan:0°~355°; Tilt:0°~65°; Rotation:0°~355°			
Intelligence					

IVS	Tripwire, Intrusion, Object Abandoned/Missing		
Advanced Intelligent Functions	Face Detection		
Video			
Compression	H.265+/H.265/H.264+/H.264		
Streaming Capability	3 Streams		
Resolution	1080P(1920x1080)/1.3M(1280x960)/ 720P(1280×720)/D1(704×576/704×480)/ VGA(640×480)/CIF(352×288/352×240)		
	Main Stream: 1080P (1~50/60fps)		
Frame Rate	Sub Stream: D1(1~50/60fps)		
	Third Stream: 1080P(1~25/30fps)		
Bit Rate Control	CBR/VBR		
Bit Rate	H.264: 24~9472Kbps H.265: 14~5632Kbps		

Day/Night	Auto(ICR) / Color / B/W		
BLC Mode	BLC / HLC / WDR(120dB)		
White Balance	Auto/Natural/Street Lamp/Outdoor/Manual		
Gain Control	Auto/Manual		
Noise Reduction	3D DNR		
Motion Detetion	Off / On (4 Zone, Rectangle)		
Region of Interest	Off / On (4 Zone)		
Electronic Image Stabilization (EIS)	N/A		
Smart IR	Support		
Defog	N/A		
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 (10/100Base-T)		
Protocol	HTTP; HTTPs; TCP; ARP; RTSP; RTP; UDP; SMTP; FTP; DHCP; DNS; DDNS; PPPOE; IPv4/v6; QoS; UPnP;NTP; Bonjour; 802.1x; Multicast; ICMP; IGMP; SNMP; RTCP		
Interoperability	ONVIF, PSIA, CGI		
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, Easy4ip		
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: 300mA 12VDC		
Electrical			
Power Supply	DC12V, AC24V, PoE+(802.3at)(Class 4)		
Power Consumption	<15W		

# Eco Savvy 3.0 | DH-IPC-HDBW5231E-ZE

#### Environmental

Operating Conditions	-30° C $^{\sim}$ +60° C (-22° F $^{\sim}$ +140° F) / Less than 95% RH		
Strorage Conditions	-30° C $^{\sim}$ +60° C (-22° F $^{\sim}$ +140° F) / Less than 95% RH		
Ingress Protection	IP67		
Vandal Resistance	IK10		
Construction			
Casing	Metal		
Dimensions	Ф159.1mm×117.9mm (6.26″×4.64″)		
Net Weight	0.95kg (2.09lb)		
Gross Weight	1.20kg (2.65lb)		

### **Ordering Information**

Туре	Part Number	Description	
2MP camera	DH-IPC- HDBW5231EP-ZE	2MP IR Dome NetworkCamera,WDR, PAL	
	DH-IPC- HDBW5231EN-ZE	2MP IR Dome Network Camera, WDR,NTSC	
	IPC- HDBW5231EP-ZE	2MP IR Dome Network Camera, WDR, PAL	
	IPC- HDBW5231EN-ZE	2MP IR Dome Network Camera WDR,NTSC	
	PFA138	Junction Box	
	PFB302S	Wall mount	
	PFB201C	In-ceiling mount	
Accessories (optional)	PFB300C	Ceiling mount	
	PFA152-E	Pole mount	
	PFA101	Mount adapter	
	LR1002	ePoE Over Coax Converter	

## Accessories

### **Optional:**



Wall mount

PFB300C





PFB201C LR1002 In-ceiling mount ePoE Over Coax Converter





PFA152-E Ceiling mount Pole mount

PFA138

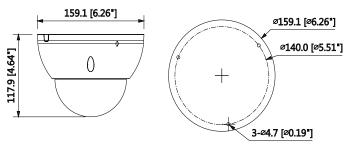
Juntion Box

-0

PFA101 Mount adapter

In-ceiling Mount	Junction Mount	Pole Mount
PFB201C	PFA138	PFA101 + PFB302S + PFA152
Ceiling Mount	Wall Mount	
PFA101 + PFB300C	PFA101 + PFB302S	

### Dimensions (mm/inch)





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