

# DH-IPC-HDBW2431R-ZS/VFS

4MP WDR IR Dome Network Camera



#### System Overview

The IR Megapixel Vari-focal camera delivers 2MP/4MP/5MP resolution with a 2.7mm – 13.5mm varifocal lens.The camera's elegant blend of aesthetics combined with a range of easy mounting solutions provides an excellent choice for a variety of small to mid-size applications at an affordable price.

#### Functions

#### 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.

#### Intelligent Video analysis (IVS)

Dahua camera is equipped with a built-in intelligent analytic algorithm based on video, which can realize intelligent functions like Tripwire and Intrusion, to quickly and accurately respond to monitoring events in specific area, It can enhance monitoring efficiency. In addition, the camera supports intelligent tamper detection, which is to generate warning message via detecting dramatic scene change and to guarantee effective video surveillance.

#### Wide Dynamic Range (WDR)

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.

#### Smart IR Technology

With IR illumination, detailed images can be captured in low light or

- · 1/3" 4Megapixel progressive CMOS
- · H.265 & H.264 dual-stream encoding
- · 20fps@4M(2688×1520)&25/30fps@3M(2304×1296)
- · WDR(120dB), Day/Night(ICR), 3DNR, AWB, AGC, BLC
- $\cdot$  Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
- · Micro SD card slot, up to 128GB
- · 2.7~13.5mm varifocal lens
- · Max IR LEDs Length 30m
- IP67, IK10, PoE



total darkness. The camera's Smart IR technology adjusts the intensity of camera's infrared LEDs to compensate the distance of an object. Smart IR technology prevents IR LEDs from whitening out images as they come closer to the camera. The camera's integrated infrared illumination provides high performance in extreme low-light environments up to 50m (164ft).

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

The camera allows for ±10% input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 2KV 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.

#### Environmental

Dahua cameras operate in extreme temperature environments, rated for use in temperatures from-30° C to +60° C (-22° F to +140° F) with 95% humidity.

#### Image flip

Capturing unnecessary data such as surrounding hallway walls can increase storage requirements without any added value. The image flip feature allows the camera's image to be rotated in 90° increments for better video optimization.

#### Interoperability

The camera conforms to the ONVIF (Open Network Video Interface Forum) specifications, ensuring interoperability between network video products regardless of manufacturer.



# Lite Series | DH-IPC-HDBW2431R-ZS/VFS

## **Technical Specification**

Camera		1/2" AMagapiyal progressive CMOC			
Image Sensor		1/3" 4Megapixel progressive CMOS			
Effective Pixels		2688(H) x1520(V)			
RAM/ROM		512MB/32MB			
Scanning System		Progressive			
Electronic Shutter Speed		Auto/Manual, 1/3~1/100000s			
Minimum Illumination		0.03Lux/F1.4( Color,1/3s,30IRE) 0.3Lux/F1.4( Color,1/30s,30IRE) 0Lux/F1.4(IR on)			
S/N Ratio		More than 50dB			
IR Distance		Distance up to 30m(98ft)			
IR On/Off Control		Auto/ Manual			
IR LEDs		2			
Lens					
Lens Type		Motorized(-ZS), Manual(-VFS)			
Mount Type		Board-in			
Focal Length		2.7mm~13.5mm			
Max. Aperture		F1.4			
Angle of View		H:104°~28°, V:55°~16°			
Focus Control		Motorized(-ZS)	Motorized(-ZS),Manual(-VFS)		
Close Focus Distance		0.2m			
	Lens	Detect	Observe	Recognize	Identify
DORI Distance	W	64m(210ft)	26m(85ft)	13m(43ft)	6m(20ft)
	т	222m(728ft)	89m(292ft)	44m(144ft)	22m(72ft)
PTZ					
Pan/Tilt Range		Pan:0° ~355° ;Tilt:0° ~75° ;Rotation:0° ~355°			
Intelligence					
IVS		Tripwire, Intrusion			
Video					
Compression		H.265+/H.265/H.264+/H.264			
Streaming Capat	oility	2 Streams			
Resolution		(2688x1520)/(2560×1440)/ (2304x1296)/1080P(1920x1080)/ SKGA(1280×1024)/1.3M(1280×960)/720P(1280×720)/ D1(704×576/704×480)/VGA(640×480) CIF(352×288/352×240)			
Frame Rate		4M (1 ~ 20fps)/3M(1 ~ 25/30fps)			
		D1/CIF(1 ~ 20/25fps)			
Bit Rate Control		CBR/VBR			
Bit Rate		H.265: 12K ~ 8448Kbps H.264: 32K ~ 10240Kbps			
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		
Digital Zoom	16x		
Flip	0°/90°/180°/270°		
Mirror	Off / On		
Privacy Masking	Off / On (4 Area, Rectangle)		
Audio			
Compression	N/A		
Network			
Ethernet	RJ-45 (10/100Base-T)		
Protocol	HTTP;TCP;ARP;RTSP;RTP;UDP;RTCP;SMTP;FTP;DHCP ;DNS;DDNS;PPPOE;IPv4/v6;SNMP;QoS;UPnP;NTP		
Interoperability	ONVIF, PSIA, CGI		
Streaming Method	Unicast / Multicast		
Max. User Access	10 Users / 20 Users		
Edge Storage	NAS Local PC for instant recording Micro 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	N/A		
Audio Interface	N/A		
RS485	N/A		
Alarm	N/A		
Electrical			
Power Supply	DC12V PoE (802.3af)(Class 0)		
Power Consumption	<8.5W(-ZS), <6W(-VFS)		

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#### Environmental

Operating Conditions	-30° C $^{\sim}$ +60° C (-22° F $^{\sim}$ +140° F) / Less than 95% RH		
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Ingress Protection	IP67		
Vandal Resistance	IK10		
Construction			
Casing	Metal		
Dimensions	ф122mm×88.9mm(4.80''x3.50'')		
Net Weight	0.4Kg (0.88lb)		
Gross Weight	0.54Kg(1.19lb)		

## **Ordering Information**

Tupo	Part Number	Description	
Туре	Part Number	Description	
4MP camera	DH-IPC- HDBW2431RP-ZS	4MP WDR IR Dome Network Camera, PAL	
	DH-IPC- HDBW2431RN-ZS	4MP WDR IR Dome Network Camera, NTSC	
	IPC-HDBW2431RP-ZS	4MP WDR IR Dome Network Camera, PAL	
	IPC-HDBW2431RN-ZS	4MP WDR IR Dome Network Camera, NTSC	
	DH-IPC- HDBW2431RP-VFS	4MP WDR IR Dome Network Camera, PAL	
	DH-IPC- HDBW2431RN-VFS	4MP WDR IR Dome Network Camera, NTSC	
	IPC-HDBW2431RP- VFS	4MP WDR IR Dome Network Camera, PAL	
	IPC-HDBD2431RN- VFS	4MP WDR IR Dome Network Camera, NTSC	
Accessories (optional)	PFA137	Junction box	
	PFB203W	Wall mount	
	PFA152-E	Pole mount	
	PFB200C	In-celling Mount	
	PFA200W	Rain shade	

### Accessories

#### **Optional:**





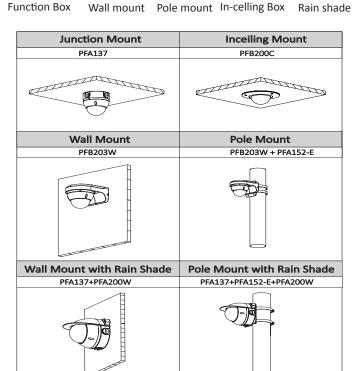




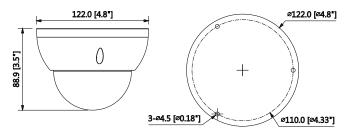
PFA137 Function Box

PFB200C PFA152-E Pole mount In-celling Box

PFA200W Rain shade



#### **Dimensions (mm/inch)**





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