

# DH-IPC-HDBW4231F-E2-M/M12

2x2MP IR Mini Dome Network Camera



- Two 1/2.8" 2Megapixel progressive scan STARVIS™ CMOS
- H.265&H.264 dual-stream encoding
- 25/30fps@2M(1920×1080)
- Smart Detection supported
- WDR(120dB), Day/Night(ICR), 3DNR, AWB, AGC, BLC
- Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
- 2.8mm fixed lens (3.6mm optional)
- Max. IR LEDs Length 20m
- Micro SD memory, IP67, IK10, PoE



## System Overview

The multi-sensor camera provides added flexibility for capturing wide area video surveillance. With two 2MP adjustable lenses can provide a flexible choice of the angle, the camera can replace multiple single-sensor cameras providing a higher return on investment. The multi-sensor camera features contrast, backlight compensation, white balance, and resolution control to create a crystal-clear image even in the most challenging lighting conditions.

## Functions

### Starlight Technology

Featuring Dahua's Starlight Technology, this camera is ideal for applications with challenging lighting conditions. Its low-light performance delivers usable video with minimal ambient light. Even in extreme low-light conditions, Starlight Technology is capable of delivering color images in near complete darkness (less than 0.01 lux).

### Wide Dynamic Range

Embedded with industry leading wide dynamic range (WDR) technology, vivid pictures are achieved even in the most intense contrast lighting conditions. For applications with both bright and low lighting conditions that change quickly, True WDR (120dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

### Intelligent Video System (IVS)

With built-in intelligent video analytics, the camera has the ability to detect and analyze moving objects for improved video surveillance. The camera provides optional standard intelligence at the edge allowing detection of multiple object behaviors such as abandoned or missing objects. IVS also supports Tripwire analytics, allowing the camera to detect when a pre-determined line has been crossed, ideal for business intelligence, and Facial Detection, for searching or identification of individuals.

### Environmental

With a temperature range of -30 °C to +60 °C (-22 °F to +140 °F), the camera is designed for extreme temperature environments. The camera

complies to an IK10 impact rating making it capable of withstanding the equivalent of 55 kg (120 lbs) of force. Subjected and certified to rigorous dust and water immersion tests, the IP67 rating makes it suitable for demanding outdoor applications. For environments with rain, sleet, snow and fog, an integrated wiper provides users with clear visibility at all times.

### Protection

Supporting ±30% input voltage tolerance, this camera suits even the most unstable conditions for outdoor applications. Its 4KV lightning rating provides protection against the camera and its structure from the effects of lightning.

### HEVC (H.265)

H.265 ITU-T VCEG is a new video coding standard. H.265 Following standard developed around the existing video coding standard H.264, some retain the original technology, while some of the relevant technology to improve the new technology uses advanced technology to improve the relationship between the code stream, encoding quality, and the delay between algorithm complexity, optimize settings specific contents include: Improve compression efficiency, improve the robustness and error recovery capabilities, real-time to reduce the delay, reduce channel acquisition time and a random access delay, reduce complexity, etc

**Technical Specification**

## Camera

Image Sensor	Two 1/2.8" 2Megapixel progressive scan CMOS
Effective Pixels	1920(H)x1080(V)
RAM/ROM	512MB/256MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual, 1/3(4)~1/100000s
Minimum Illumination	0.009Lux/F2.0( Color,1/3s,30IRE) 0.07Lux/2.0( Color,1/30s,30IRE) 0Lux/F2.0(IR on)
S/N Ratio	More than 50dB
IR Distance	Distance up to 20m (66ft)
IR On/Off Control	Auto/ Manual
IR LEDs	10 x 2

## Lens

Lens Type	Fixed				
Mount Type	Board-in				
Focal Length	2.8mm (3.6mm optional)				
Max. Aperture	F2.0 (F2.1)				
Angle of View	H: 110° (86°), V:60° (46°)				
Optical Zoom	N/A				
Focus Control	Fixed				
Close Focus Distance	N/A				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	41m(134ft)	16m(52ft)	8m(26ft)	4m(13ft)
	3.6 mm	55m(180ft)	22m(72ft)	11m(36ft)	6m(20ft)

## Pan/Tilt/Rotation

Pan/Tilt/Rotation Range	Pan:±90°; Tilt:0°~65°; Rotation:0°~360°
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## 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

## Video

Compression	H.265/H.264H/MJPEG(Sub Stream)
Smart Codec	N/A
Streaming Capability	2 Streams
Resolution	1080P(1920x1080)/1.3M(1280x960)/720P(1280x720)/D1(704x576/704x480)/VGA(640x480)/CIF(352x288/352x240)
Frame Rate	Main Stream: CH1: 1080P (1~25/30fps) CH2: 1080P (1~25/30fps)
	Sub Stream: CH1: D1(1~25/30fps) CH2: D1(1~25/30fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 32~10240Kbps H.265: 12~7168Kbps
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 Detection	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
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## Network

Ethernet	-M Model: RJ-45 (10/100Base-T) -M12 Model: M12 D-Coding (10/100Base-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;SNMP;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 E-mark(ECE-Regulation No.10) EN50155
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## Interface

Video Interface	N/A
Audio Interface	Built-in Mic
RS485	N/A
Alarm	N/A

## Electrica

Power Suppl	-M Model: DC12V, PoE (802.3af)(Class 0) -M12 Model: PoE (802.3af)(Class 0)
Power Consumption	DC 12V: 4.32W 6.02W(IR on) PoE: 4.32W 6.02W(IR on)

## Environmental

Operating Conditions	-30° C ~ +60° C (-22° F ~ +140° F) / Less than 95% RH
Storage Conditions	-30° C ~ +60° C (-22° F ~ +140° F) / Less than 95% RH
Ingress Protection	IP67
Vandal Resistance	IK10

Construction

Casing	Metal
Dimensions	Φ122mm×65.4mm (4.79"×2.57")
Net Weight	0.505kg (1.11lb)
Gross Weight	0.53kg (1.17lb)

Ordering Information

Type	Part Number	Description
2MP camera	DH-IPC-HDBW4231FP-E2-M-0280B	2x2MP IR Mini Dome Network Camera, PAL
	DH-IPC-HDBW4231FN-E2-M-0280B	2x2MP IR Mini Dome Network Camera, NTSC
	IPC-HDBW4231FP-E2-M-0280B	2x2MP IR Mini Dome Network Camera, PAL
	IPC-HDBW4231FN-E2-M-0280B	2x2MP IR Mini Dome Network Camera, NTSC
	DH-IPC-HDBW4231FP-E2-M-0360B	2x2MP IR Mini Dome Network Camera, PAL
	DH-IPC-HDBW4231FN-E2-M-0360B	2x2MP IR Mini Dome Network Camera, NTSC
	IPC-HDBW4231FP-E2-M-0360B	2x2MP IR Mini Dome Network Camera, PAL
	IPC-HDBW4231FN-E2-M-0360B	2x2MP IR Mini Dome Network Camera, NTSC
	DH-IPC-HDBW4231FP-E2-M12-0280B	2x2MP IR Mini Dome Network Camera, PAL
	DH-IPC-HDBW4231FN-E2-M12-0280B	2x2MP IR Mini Dome Network Camera, NTSC
	IPC-HDBW4231FP-E2-M12-0280B	2x2MP IR Mini Dome Network Camera, PAL
	IPC-HDBW4231FN-E2-M12-0280B	2x2MP IR Mini Dome Network Camera, NTSC
	DH-IPC-HDBW4231FP-E2-M12-0360B	2x2MP IR Mini Dome Network Camera, PAL
	DH-IPC-HDBW4231FN-E2-M12-0360B	2x2MP IR Mini Dome Network Camera, NTSC
	IPC-HDBW4231FP-E2-M12-0360B	2x2MP IR Mini Dome Network Camera, PAL
	IPC-HDBW4231FN-E2-M12-0360B	2x2MP IR Mini Dome Network Camera, NTSC
Accessories (optional)	PFB203W	Wall Mount
	PFA137	Junction Mount
	PFA106	Ceiling Mount
	PFB220C	Ceiling Mount
	PFA152-E	Pole Mount

Accessories

Optional:



PFA137



PFB203W



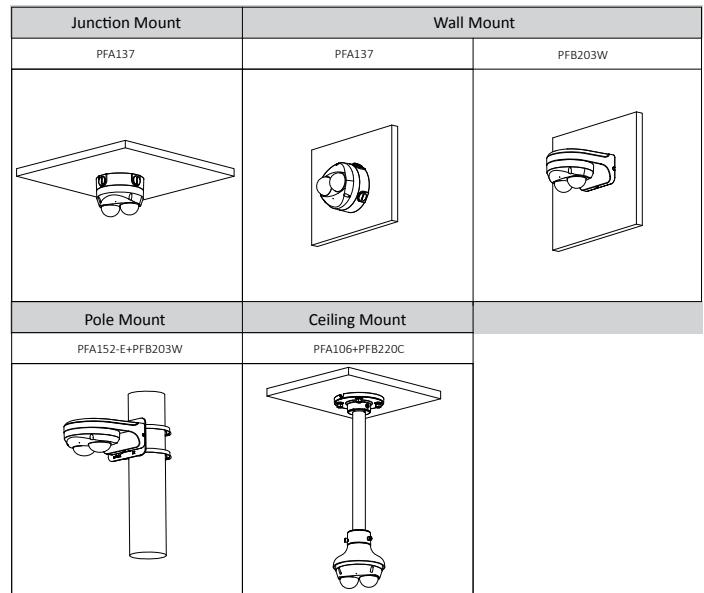
PFA152-E



PFB220C



PFA106



Dimensions (mm/inch)

