

# DH-IPC-HDBW1431R-ZS-S4

## 4MP Entry IR Vari-focal Dome Network Camera



- 4MP, 1/3" CMOS image sensor, low illuminance, high image definition
- Outputs 4MP (2560 × 1440) @25/30 fps, and supports max. 4MP (2688 × 1520) @20 fps
- H.265 codec, high compression rate, ultra-low bit rate
- Built-in IR LED, max. IR distance: 40 m
- ROI, SMART H.264/H.265, flexible coding, applicable to various bandwidth and storage environments
- Image flip, WDR, 3D DNR, HLC, BLC, digital watermarking, applicable to various monitoring scenes
- Abnormality detection: Motion detection, video tampering, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, voltage detection
- Supports max. 256 GB SD card
- 12V DC/PoE power support
- IP67, IK10 protection



### System Overview

With features of simple installation, easy operation, and high performance-cost ratio, Dahua Entry Series camera is applicable to small and medium-sized scenes, such as homes/residences, small-sized retail stores, and other small and medium-sized enterprises.

### Functions

#### Smart (H.265+ & H.264+)

With advanced scene-adaptive rate control algorithm, Dahua smart encoding technology realizes the higher encoding efficiency than H.265 and H.264, provides high-quality video, and reduces the cost of storage and transmission.

#### Motion Detection

When moving objects appear in the monitoring image, Dahua Motion Detection (General) technology triggers alarm or records.

#### Wide Dynamic Range (WDR)

With advanced Wide Dynamic Range (WDR) technology, Dahua network camera provides clear details in the environment of strong brightness contrast. The bright and dark area can get clear video even in high brightness environment or with backlight shadow.

#### Smart IR

Dahua Smart IR technology can display image in the environment of low illuminance or completely dark environment. According to the distance of the targets, the camera adjusts IR LEDs intensity automatically to display the details of the moving target.

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

IP67: The camera passes a series of strict test on dust and soak. It has dust-proof function, and the enclosure can work normal after soaking in 1 m deep water for 30 minutes.

IK10: The enclosure can stand the punch more than 5 times from a 5 kg hammer falling from a height of 40 m (Impact energy is 20J).

Wide voltage: The camera allows ±30% input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

**Technical Specification**

**Camera**

Image Sensor	1/3" 4Megapixel progressive CMOS
Effective Pixels	2688 (H) x 1520 (V)
ROM	128 MB
RAM	128 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s-1/100000 s
Min. Illumination	0.03 Lux @ F1.7
IR Distance	40 m (164.0 ft)
IR On/Off Control	Auto/Manual
IR LEDs Number	2
Pan/Tilt/Rotation Range	Horizontal: 0°-355° Vertical: 0°-75° Rotation: 0°-355°

**Lens**

Lens Type	Motorized vari-focal				
Mount Type	φ14				
Focal Length	2.8 mm-12 mm				
Max. Aperture	F1.7				
Field of View	Horizontal: 98°-31° Vertical: 55°-18° Diagonal: 116°-36°				
Iris Type	Fixed aperture				
Close Focus Distance	0.8 m (2.6 ft)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	W	66.0 m (183.7 ft)	26.4 m (73.5 ft)	13.2 m (36.7 ft)	6.6 m (18.4 ft)
	T	200.0 m (656.2 ft)	80.0 m (262.5 ft)	40.0m (131.2 ft)	20.0 m (65.6 ft)

**Video**

Video Compression	H.265; H.264; H.264B; MJPEG
Smart Codec	Yes
Video Frame Rate	Main Stream: 2688 x 1520 (1 fps-20 fps) 2560 x 1440 (1 fps-25/30 fps) Sub Stream: 704 x 576 (1 fps-20/25 fps) 704 x 480 (1 fps-20/30 fps)
Stream Capability	2 streams
Resolution	2688 x 1520 (2688 x 1520); 2560 x 1440 (2560 x 1440); 2304 x 1296 (2304 x 1296); 1080p (1920 x 1080); 1.3M (1280 x 960); 720p (1280 x 720); D1 (704 x 576/704 x 480); VGA (640 x 480); CIF (352 x 288/352 x 240)

Bit Rate Control	CBR; VBR
Video Bit Rate	H.264: 32 Kbps-6144 Kbps H.265: 12 Kbps-6144 Kbps
Day/Night	Auto(ICR)/Color/B/W
BLC	Yes
HLC	Yes
WDR	120 dB
White Balance	Auto/natural/street lamp/outdoor/manual/regional custom
Gain Control	Manual/Auto
Noise Reduction	3D DNR
Motion Detection	OFF/ON (4 areas, rectangular)
Region of Interest(Rol)	Yes (4 areas)
Smart IR	Yes
Image Rotation	0°/90°/180°/270° (Support 90°/270° with 2688 x 1520 resolution.)
Mirror	Yes
Privacy Masking	4 areas

**Network**

Network	RJ-45 (10/100 Base-T)
Protocol	HTTP; TCP; ARP; RTSP; RTP; UDP; RTCP; SMTP; FTP; DHCP; DNS; DDNS; PPPoE; IPv4/v6; QoS; UPnP; NTP; RTMP; Multicast; HTTPS; SFTP; 802.1x; ICMP; IGMP
Interoperability	ONVIF (Profile S/Profile G); CGI; Milestone; Genetec; P2P
User/Host	20
Edge Storage	Dahua Cloud; FTP; Micro SD card (support max. 256 GB); NAS
Browser	IE Chrome Firefox
Management Software	Smart PSS; DSS; DMSS
Mobile Phone	IOS; Android

**Certification**

Certifications	CE-LVD: EN60950-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B
Power	
Power Supply	12V DC/POE (802.3af)
Power Consumption	< 6.4W
Environment	
Operating Conditions	-30°C to +60°C (-22°F to +140°F)/less than≤95%
Storage Conditions	-40°C to +60°C (-40°F to +140°F)
Ingress Protection	IP67; IK10

Structure

Casing	Metal
Dimensions	88.9 mm × Φ122 mm (3.5" × Φ4.8")
Net Weight	0.46 kg (1.0 lb)
Gross Weight	0.64 kg (1.4 lb)



PFM900-E  
Integrated Mount  
tester



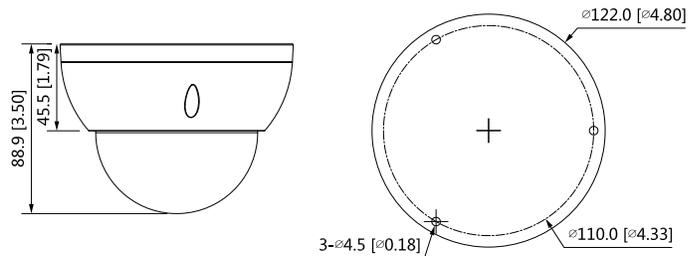
PFM114  
TLC SD card

Ordering Information

Type	Part Number	Description
4MP Camera	DH-IPC-HDBW1431RP-ZS-S4	4MP Entry IR Vari-focal Dome Network Camera,PAL
	DH-IPC-HDBW1431RN-ZS-S4	4MP Entry IR Vari-focal Dome Network Camera,NTSC
Accessories (optional)	PFA137	Junction Box
	PFA200W	Rain Shade
	PFB203W	Wall Mount
	PFA152-E	Pole Mount
	PFA106	Mount Adapter
	PFB220C	Ceiling Mount
	PFB200C	In-ceiling Mount
	PFM321D	DC12V1A Power Adapter
	LR1002-1ET/1EC	Single-port Long Reach Ethernet over Coax Extender
	PFM900-E	Integrated Mount Tester
	PFM114	TLC SD Card

Junction Mount	Wall Mount	Wall Mount	Pole Mount
PFA137	PFA137+PFA200W	PFB203W	PFB203W+PFA152-E
Ceiling Mount	In-ceiling Mount		
PFA106+PFB220C	PFB200C		

Dimensions (mm[inch])



Accessories

Optional:



PFA137  
Junction Box



PFA200W  
Rain Shade



PFB203W  
Wall Mount



PFA152-E  
Pole Mount



PFA106  
Mount Adapter



PFB220C  
Ceiling Mount



PFB200C  
In-Ceiling Mount



PFM321D  
DC12V1A Power  
Adapter



LR1002-1ET/1EC  
Single-port long  
reach ethernet over  
coax extender