



# DH-IPC-HDBW2241E-S

# 2MP IR Fixed-focal Dome WizSense Network Camera





Launched by Dahua Technology, WizSense is a series of AI products and solutions that adopt independent AI chip and deep learning algorithm. It focuses on human and vehicle with high accuracy, enabling users to fast act on defined targets. Based on Dahua's advanced technologies, WizSense provides intelligent, simple and inclusive products and solutions.

#### **System Overview**

With advanced deep learning algorithm, Dahua WizSense 2 Series network camera supports intelligent functions, such as perimeter protection and smart motion detection. With starlight technology, this series camera provides a better image effect in the condition of low illuminance.

## **Functions**

#### **SMD Plus**

With intelligent algorithm, Dahua Smart Motion Detection technology can categorize the targets that trigger motion detection and filter the motion detection alarm triggered by non-concerned targets to realize effective and accurate alarm.

#### Smart H.265+ & Smart 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.

## **Perimeter Protection**

With deep learning algorithm, Dahua Perimeter Protection technology can recognize human and vehicle accurately. In restricted area (such as pedestrian area and vehicle area), the false alarms of intelligent detection based on target type (such as tripwire, intrusion) are largely reduced.

- 2-MP 1/2.8" CMOS image sensor, low luminance, and high definition
- Outputs max. 2 MP (1920 × 1080)@25/30 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in IR LED, and the max. illumination distance is 30 m.
- ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments.
- Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes.
- Intelligent monitoring: Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human).
- · Supports max. 256 G Micro SD card; built in MIC.
- 12 VDC/PoE power supply, easy for installation.
- IP67 and IK10 protection.
- · SMD Plus.













#### 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.

## **Cyber Security**

Dahua network cameras employ a series of security technologies, including security authentication and authorization, access control protocols, trusted protection, encrypted transmission and encrypted storage. These technologies improve the camera's defense against external cyber threats and prevent malicious programs from compromising the device.

#### 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 normally 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 cm (Impact energy is 20J). Wide voltage: The camera allows ±30% (for some power supplies) input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

Camera					
Image Sensor		1/2.8" CMOS			
Max. Resolution		1920 (H) × 1080 (V)			
ROM		128 MB			
RAM Scanning System		128 MB			
Scanning System		Progressive	1/2 - 1/100 0	00.5	
Electronic Shutter Speed Min. Illumination		Auto/Manual 1/3 s-1/100,000 s  0.002 lux@F1.6 (Color, 30 IRE) 0.0002 lux@F1.6 (B/W, 30 IRE) 0 lux (Illuminator on)			
S/N Ratio		>56 dB			
Illumination [	Distance	30 m (98.43 ft) (IR LED)			
Illuminator On/Off Control		Auto;Manual			
Illuminator Number		3 (IR LED)			
Pan/Tilt/Rotation Range		Pan: 0°–355° Tilt: 0°–65° Rotation: 0°–355°			
Lens					
Lens Type		Fixed-focal			
Lens Mount		M12			
Focal Length		2.8 mm; 3.6 mm			
Max. Aperture		F1.6			
Field of View		2.8 mm: H: 106°; V: 56°; D: 127° 3.6 mm: H: 88°; V: 44°; D: 105°			
Iris Control		Fixed			
Close Focus D	Distance	2.8 mm: 0.7 r 3.6 mm: 1.3 r			
	Lens	Detect	Observe	Recognize	Identify
DORI Distance	2.8 mm	43.9 m (144.03 ft)	17.5 m (57.41 ft)	8.8 m (28.87 ft)	4.4 m (14.44 ft)
	3.6 mm	58.9 m (193.24 ft)	23.6 m (77.43 ft)	11.8 m (38.71 ft)	5.9 m (19.37 ft)
Intelligenc	ce				
IVS (Perimeter Protection)		Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human)			
Smart Search		Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos			
Video					
Video Compression		H.265; H.264; H.264H; H.264B; MJPEG (Only supported by the sub stream)			
Smart Codec		Smart H.265+; Smart H.264+			
Video Frame Rate		Main stream: 1920 × 1080@(1–25/30 fps) Sub stream: 704 × 576@(1–25 fps)/704 × 480@(1–30 fps) *The values above are the max. frame rates of each stream; for multiple streams, the values will be subjected			

Stream Capability	2 streams	
Resolution	1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 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 NR	
Motion Detection	OFF/ON (4 areas, rectangular)	
Region of Interest (RoI)	Yes (4 areas)	
Smart Illumination	Yes	
Image Rotation	$0^{\circ}/90^{\circ}/180^{\circ}/270^{\circ}$ (Support $90^{\circ}/270^{\circ}$ with $1080p$ resolution and lower)	
Mirror	Yes	
Privacy Masking	4 areas	
Audio		
Built-in MIC	Yes	
Audio Compression	G.711a; G.711Mu; G.726; PCM	
Alarm		
Alarm Event	No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; audio detection; voltage detection; SMD; security exception	
Network		
Network Port	RJ-45 (10/100 Base-T)	
SDK and API	Yes	
Network Protocol	IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; NTP; Multicast; ICMP; IGMP	
Interoperability	ONVIF (Profile S/Profile G); CGI; P2P	
User/Host	6 (Total bandwidth: 36 M)	
Storage	FTP; SFTP; Micro SD card (support max. 256 GB)	
Browser	IE; Chrome; Firefox	
Management Software	DSS; DMSS	
Mobile Client	iOS; Android	
Cyber Security	Video encryption;Firmware encryption;Configuration encryption;Digest;WSSE;Account lockout;Security logs;IP/MAC filtering;Generation and importing of X.509 ce rtification;syslog;HTTPS;802.1x;Trusted boot;Trusted execution;Trusted upgrade	

## Certification

#### Power

Power Supply	12 VDC/PoE
Power Consumption	Basic: 1.9 W (12 VDC); 2.5 W (PoE) Max. (ICR + H.265 + WDR + max. Illumination + intelligence on): 4.7 W (12 VDC); 5.6 W (PoE)

#### Environment

Operating Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Operating Humidity	≤95%
Protection	IP67; IK10

#### Structure

Casing Material	Metal
Product Dimensions	81.0 mm × Φ109.9 mm (3.19" × Φ4.33")
Net Weight	0.34 kg (0.75 lb)
Gross Weight	0.49 kg (1.08 lb)

#### **Ordering Information** Type Model Description 2MP IR Fixed-focal Dome 2MP Camera DH-IPC-HDBW2241E-S WizSense Network Camera PFA136 Junction Box PFB203W Wall Mount Bracket PFA109 Mount Adapter PFB220C Ceiling Mount Bracket PFA152-E Pole Mount Bracket Accessories PFA150 Pole Mount Bracket (Optional) PFB305W Wall Mount Bracket PFA151 Corner Mount Bracket 12 VDC 1 A Power Adapter PFM321D PFM900-E Integrated Mount Tester TF-P100 MicroSD Memory Card

## Accessories

## Optional:



PFA136 Junction Box



PFB203W Wall Mount Bracket



PFA109 Mount Adapter



PFB220C Ceiling Mount Bracket



PFA152-E Pole Mount Bracket



PFA150 Pole Mount Bracket



PFB305W Wall Mount Bracket



PFA151 Corner Mount Bracket



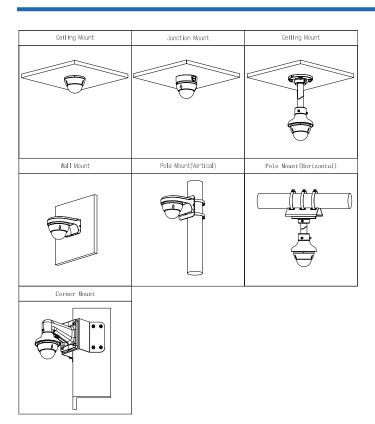
PFM321D 12 VDC 1A Power Adapter



PFM900-E Integrated Mount Tester



TF-P100 MicroSD Memory Card



# Dimensions (mm[inch])

