



DH-IPC-HDBW2241R-Z(A)S

2MP IR Vari-focal Dome WizSense Network Camera



Wiz Sense

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 40 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)
- · Abnormality detection: Motion detection, video tampering, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection.
- · Alarm: 1 in, 1 out (Only ZAS supports); audio: 1 in, 1 out (Only ZAS supports); supports max. 256 G Micro SD card; built in MIC.
- 12 VDC/PoE power supply, easy for installation.
- IP67 and IK10 protection.
- · SMD Plus.













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.

Smart H.264+

Smart Codec

Technical	Specification	on						Main stream: 1920 × 1080@(1–25/30 fps) Sub stream: 704 × 576@(1–25 fps)/704 × 480@(1–30	
Camera							Video Frame Rate	fps) *The values above are the max. frame rates of each stream; for multiple streams, the values will be subjected to the total encoding capacity.	
Image Sensor		1/2.8" CMOS							
Max. Resolution		1920 (H) × 1080 (V)					Stream Capability	2 streams	
ROM		128 MB					Resolution	1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)	
RAM		128 MB							
Scanning System		Progressive					Bit Rate Control	CBR/VBR	
Electronic Shutter Speed		Auto/Manual 1/3 s-1/100,000 s					Video Bit Rate	H.264: 32 kbps-6144 kbps H.265: 12 kbps-6144 kbps	
Min. Illumination		0.002 lux@F1.5 (Color, 30 IRE) 0.0002 lux@F1.5 (B/W, 30 IRE) 0 lux (Illuminator on)					Day/Night	Auto(ICR)/Color/B/W	
S/N Ratio		>56 dB					BLC	Yes	
Illumination Distance		40 m (131.23 ft) (IR LED)					HLC	Yes	
Illuminator On/Off Control		Auto; Manual					WDR	120 dB	
Illuminator Number		2 (IR LED)					White Balance	Auto; natural; street lamp; outdoor; manual; regional custom	
Pan/Tilt/Rot	Pan/Tilt/Rotation Range		Pan: 0°–355° Tilt: 0°–75°				Gain Control	Manual; Auto	
Long		Rotation: 0°–355°					Noise Reduction	3D NR	
Lens		Motorized vari-focal					Motion Detection	OFF/ON (4 areas, rectangular)	
Lens Type							Region of Interest (RoI)	Yes (4 areas)	
Lens Mount		φ14 2.7 mm–13.5 mm					Smart Illumination	Yes	
	Focal Length Max. Aperture		F1.5				Image Rotation	$0^{\circ}/90^{\circ}/180^{\circ}/270^{\circ}$ (Support $90^{\circ}/270^{\circ}$ with $1080p$ resolution and lower)	
Field of View			H: 108°–30°;				Mirror	Yes	
Field of View		V: 56°-17°; D: 131°-35°					Privacy Masking	4 areas	
Iris Control		Fixed					Audio		
Close Focus Distance		0.8 m (2.62 ft)					Built-in MIC	Yes	
	Lens	Detect	Observe	Recognize	Identify		Audio Compression	G.711a;G.711Mu; G.726; PCM	
	W	44.1 m (144.69 ft)	17.7 m (58.07 ft)	8.8 m (28.87 ft)	4.4 m (14.44 ft)		Alarm		
DORI Distance		(475.07 ft) (189.96 ft) (96.1st, Observe, Recognize, Identify) is a sta					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; defocus detection; external alarm (Only- ZAS supports); SMD; security exception	
	distinguish pe	2676-4) for defining the ability of a person viewing the video to guish persons or objects within a covered area. The numbers in ble do not reflect intelligent function distances. For intelligent					Network		
	function distances, refer to installation and commissioning manual/ project design tool.						Network Port	RJ-45 (10/100 Base-T)	
Intelligence							SDK and API	Yes	
IVS (Perimet	IVS (Perimeter Protection)		Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human)				Network Protocol	IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; NTP; Multicast; ICMP; IGMP; P2P	
Smart Search		Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videor.					Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI	
Video		videos					User/Host	6 (Total bandwidth: 36 M)	
Video Compression		H.265; H.264; H.264H; H.264B; MJPEG (Only supported					Storage	FTP; SFTP; Micro SD card (support max. 256 GB)	
Smart Codec		by the sub stream) Smart H.265+					Browser	IE Chrome Firefox	

Smart PSS; DSS; DMSS			
iOS; Android			
Video encryption; Configuration encryption; Digest; WSSE; Account lockout; Security logs; IP/MAC filtering; Generation and importing of X.509 certification; syslog; HTTPS; 802.1x;Trusted boot;Trusted execution; Trusted upgrade			
CE-LVD: EN62368-1; CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU; FCC: 47 CFR FCC Part 15, Subpart B; UL/CUL: UL62368-1 & CAN/CSA C22.2 No. 62368-1-14			
1 channel (RCA port) (Only- ZAS supports)			
1 channel (RCA port) (Only- ZAS supports)			
1 channel in: 5mA 3V–5V DC (Only- ZAS supports)			
1 channel out: 300mA 12V DC (Only- ZAS supports)			
12 VDC/PoE (802.3af)			
-ZS: Basic: 1.8 W (12 VDC); 2.6 W (PoE) Max. (H.265+intelligence on +WDR +IR on): 6.2 W (12 VDC); 7.1 W (PoE) -ZAS: Basic: 1.8 W (12 VDC); 2.6 W (PoE) Max. (H.265+intelligence on +WDR +IR on): 6.3 W (12 VDC); 7.2 W (PoE)			
−30 °C to +60 °C (−22 °F to +140 °F)			
≤95%			
-40 °C to +60 °C (-40°F to +140°F)			
IP67; IK10			
Metal			
93.4 mm × Φ122 mm (3.68"× Φ4.80")			
-ZS: 0.49 kg (1.08 lb) -ZAS: 0.52 kg (1.15 lb)			
-ZS: 0.66 kg (1.46 lb) -ZAS: 0.68 kg(1.50 lb)			

Ordering Information						
Туре	Model	Description				
2MP Camera	DH-IPC-HDBW2241R-ZAS	2MP IR Vari-focal Dome WizSense Network Camera				
ZIVIP Calliera	DH-IPC-HDBW2241R-ZS	2MP IR Vari-focal Dome WizSense Network Camera				
	PFA137	Junction Box				
	PFB203W	Wall Mount Bracket				
	PFA109	Mount Adapter				
Accessories	PFB220C	Ceiling Mount Bracket				
(Optional)	PFA152-E	Pole Mount Bracket				
	PFM321D	12 VDC 1A Power Adapter				
	PFM900-E	Integrated Mount Tester				
	TF-P100	MicroSD Memory Card				

Accessories

Optional:







PFA137 Junction Box

PFB203W Wall Mount Bracket

PFA109 Mount Adapter

PFB220C Ceiling Mount Bracket



PFA152-E Pole Mount Bracket



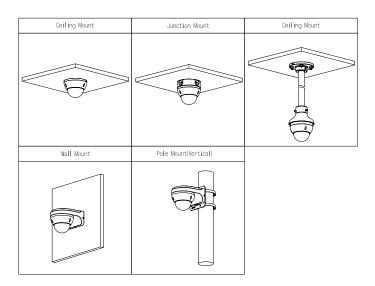
Power Adapter



PFM900-E Integrated Mount Tester



TF-P100 MicroSD Memory Card



Dimensions (mm[inch])

