Manuals+ — User Manuals Simplified.

Wiz Sence DH-IPC-HDBW2241E-S 2MP IR Fixed-focal Dome WizSense Network Camera Owner's Manual

Wiz Sence DH-IPC-HDBW 2241-S 2MP IR Fixed-focal Dome WizSense Network Camera

Launched by Dahua Technology, Wizens 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 Dehua's advanced technologies, Wizens provides intelligent, simple and inclusive products and solutions.

Contents

System Overview

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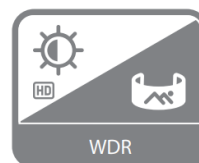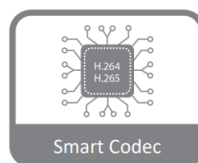
WDR
With advanced Wide Dynamic Range (WDR) technology, Dahua network camera provides clear details in the environment of strong brightness contrast. The bright and dark area can get clear video even in high brightness environment or with backlight shadow.

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.

Technical Specification

Camera	
Image Sensor	1/2.8″ CMOS
Max. Resolution	1920 (H) × 1080 (V)
ROM	128 MB
RAM	128 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	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	up to 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-focus
Lens Mount	M12
Focal Length	2.8 mm; 3.6 mm
Max. Aperture	F1.6
Max. Aperture	2.8 mm: H: 106°; V: 56°; D: 127° 3.6 mm: H: 88°; V: 44°; D: 105°
Iris Control	Fixed
Close Focus Distance	2.8 mm: 0.7 m (2.30 ft) 3.6 mm: 1.3 m (4.27 ft)

	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	43.9 m (144.03 ft)	17.5 m (57.41 ft)	8.8 m (28.87 ft)	8.8 m (28.87 ft)
	2.8 mm	8.8 m (28.87 ft)	8.8 m (28.87 ft)	8.8 m (28.87 ft)	8.8 m (28.87 ft)
DORI Distance					

	*DORI (Detect, Observe, Recognize, Identify) is a standard system (EN-62676-4) for defining the ability of a person viewing the video to distinguish persons or objects within a covered area. The numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and commissioning manual/ project design tool.

Intelligence

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 to the total encoding capacity
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°/90°/180°/270° (Support 90°/270° 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	Management Software
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; P2P
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI
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 certification;syslog;HTTPS;802.1x;Trusted boot;Trusted execution; Trusted upgrade
Certification	
Certifications	CE-LVD: EN 62368-1; CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU; FCC: 47 CFR FCC Part 15, Subpart B; UL/CUL: UL 62368-1 & CAN/CSA C22.2 No. 62368-1-14
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 Materia	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 Camera	DH-IPC-HDBW2241E-S	2MP IR Fixed-focal Dome Wiz Sense Network Camera
Accessories (Optional)	PFA136	Junction Box
	PFA136	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 1 A Power Adapter
	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

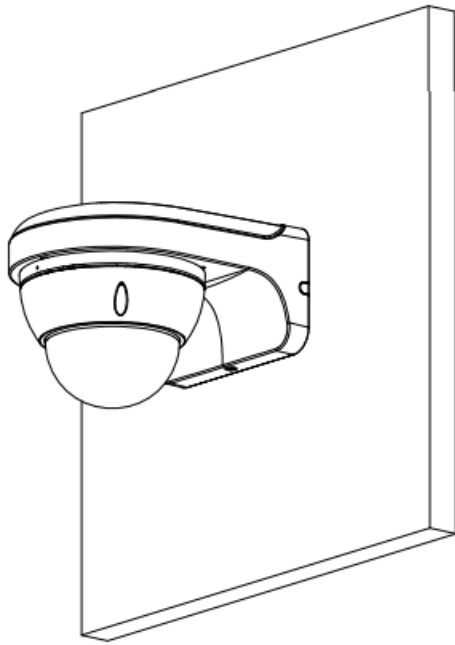
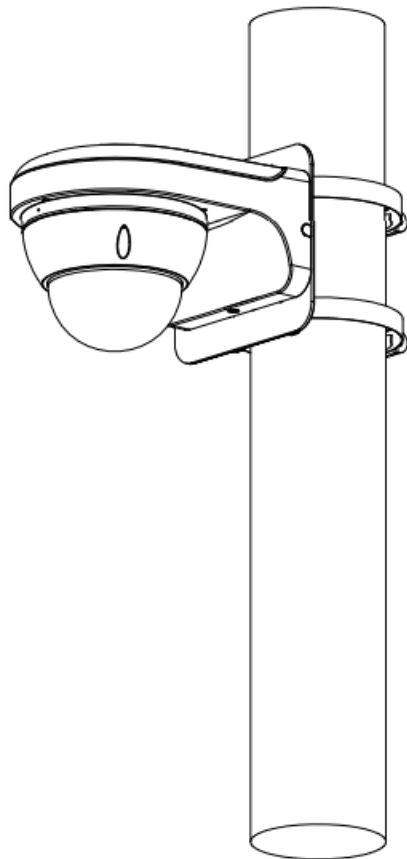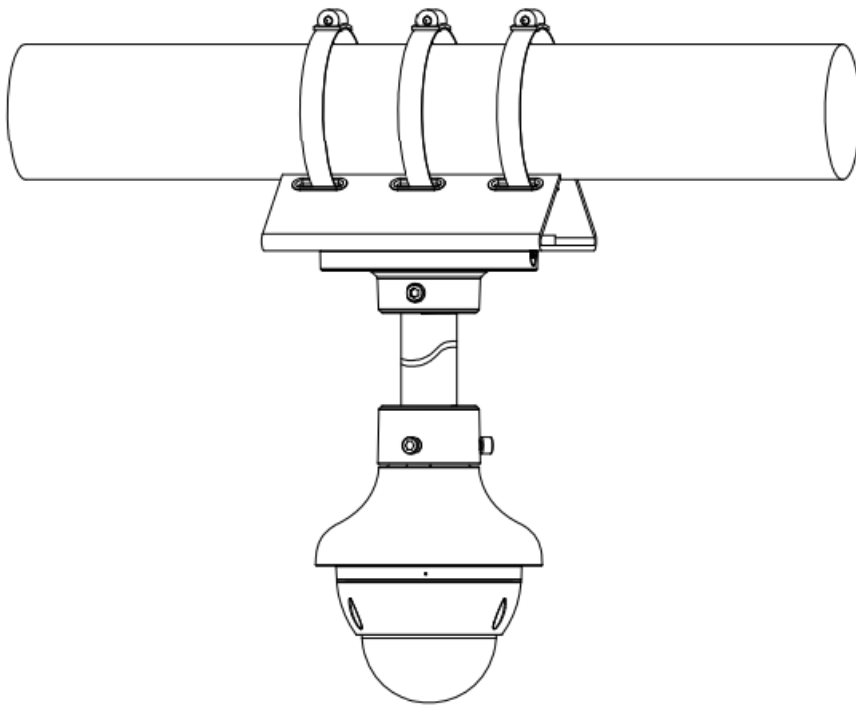**Installation**

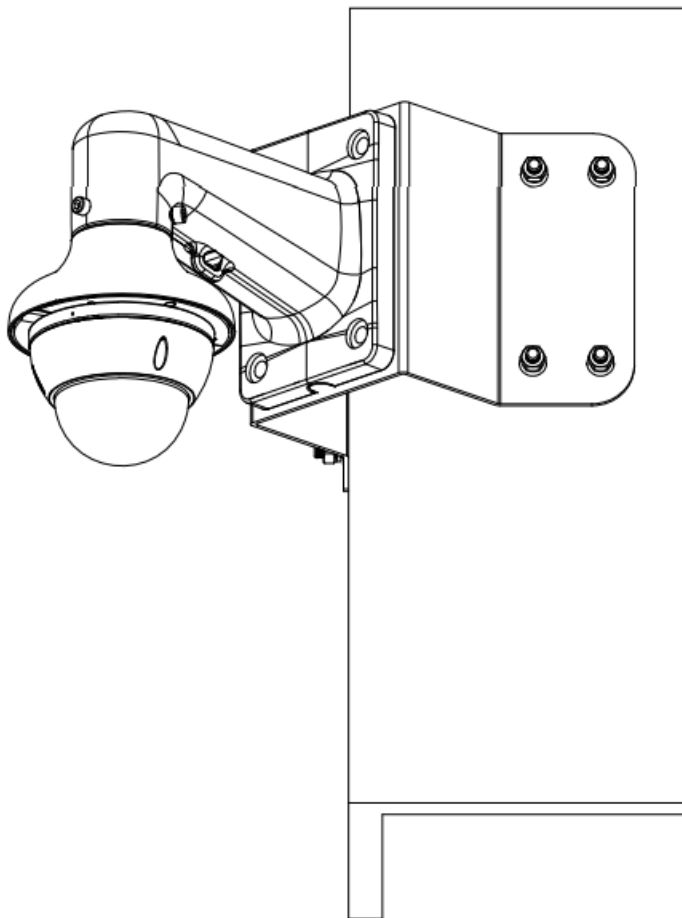- Ceiling Mount
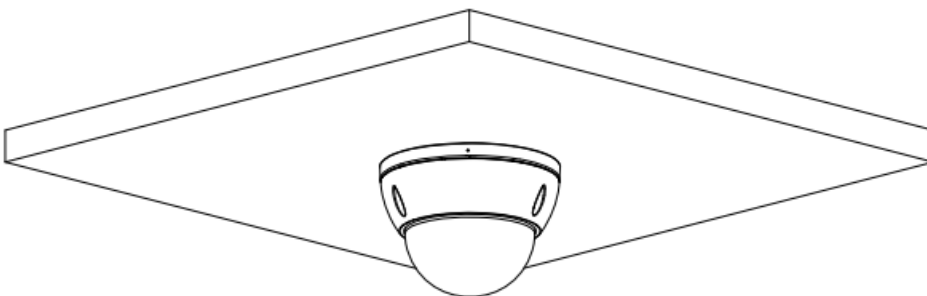
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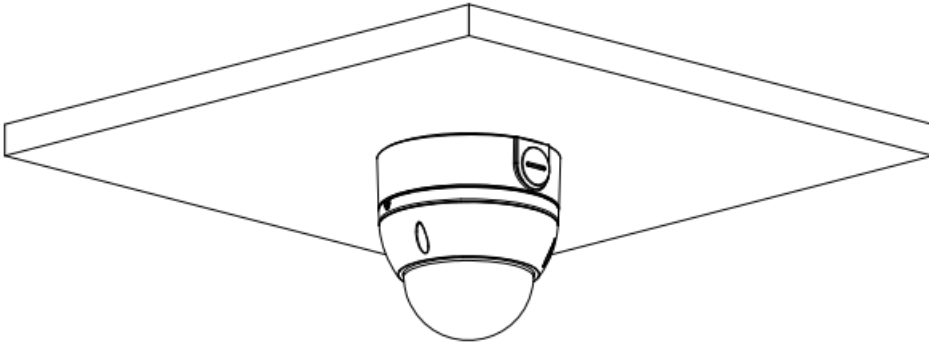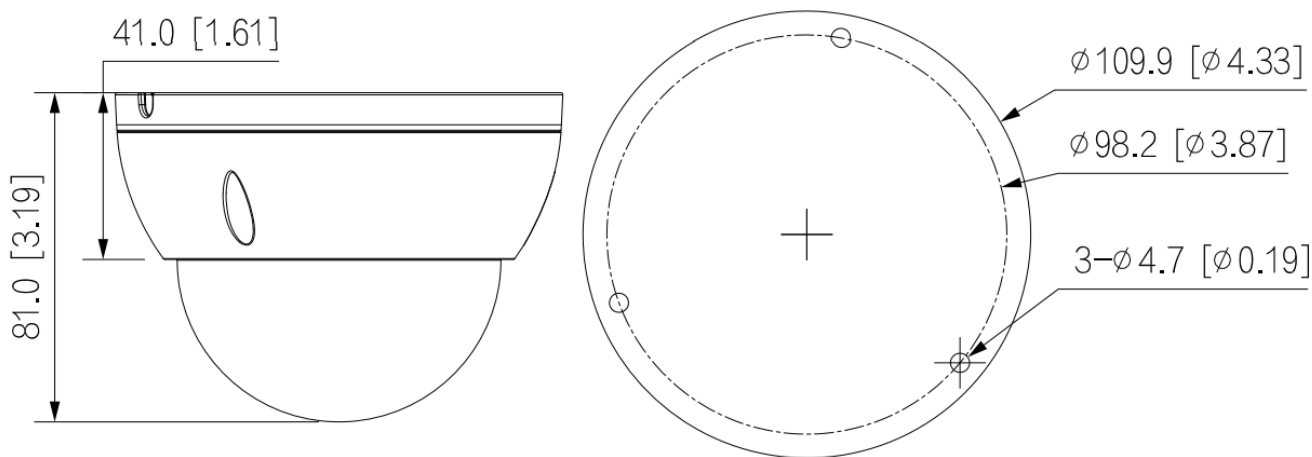
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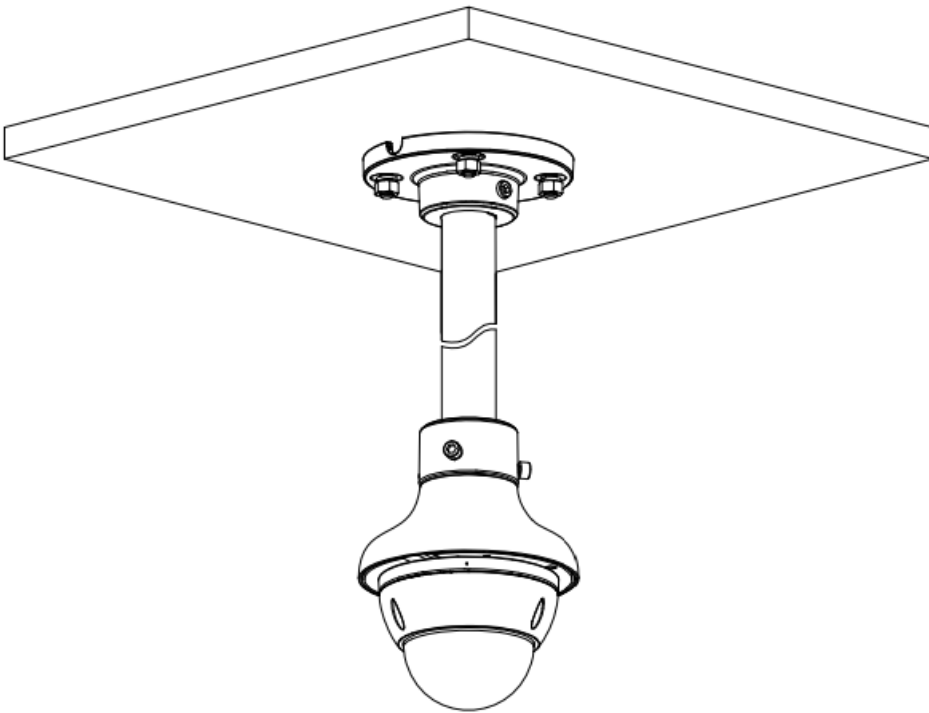
- Wall Mount

- Pole Mount(Vertical)

- Pole Mount(Horizontal)

- Corner Mount

Dimensions (mm[inch])

41.0 [1.61]

81.0 [3.19]

⌀109.9 [⌀4.33]

⌀98.2 [⌀3.87]

3-⌀4.7 [⌀0.19]

Customer Support

Documents / Resources

	Wiz Sence DH-IPC-HDBW2241E-S 2MP IR Fixed-focal Dome WizSense Network Camera [pdf] Owner's Manual DH-IPC-HDBW2241E-S 2MP IR Fixed-focal Dome Wiz Sense Network Camera, DH-IPC-HDBW2241E-S 2MP, IR Fixed-focal Dome Wiz Sense Network Camera, Dome Wiz Sense Network Camera, Sense Network Camera, Network Camera, Camera

References

- **Dahua Technology - World Leading Video-Centric AIoT Solution & Service Provider**
- **User Manual**

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