

DH-IPC-HDBW2841E-S

8MP IR Fixed-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.

Series 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.

- 8-MP 1/2.7" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 8 MP (3840 × 2160) @20 fps, and supports 2688 × 1520 (2688 × 1520) @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).
- 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.
- · Supports max. 256 G Micro SD card; built in MIC.
- 12 VDC/PoE power supply, easy for installation.
- IP67, 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 $\pm 30\%$ (for some power supplies) input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

Transpage Service S	Technical	Specification	on						Main stream: 3840 × 2160@(1–20 fps)/2688 × 1520@
Make Repolation	Camera								
Mat.	Image Sensor		1/2.7" CMOS					Video Frame Rate	*The values above are the max. frame rates of each
SAM									
25 Miles	ROM		128 MB					Stream Capability	2 streams
Resolution Propressive	RAM		256 MB					Resolution	3072 × 1728 (3072 × 1728); 2880 × 1620 (2880 × 1620); 2688 × 1520 (2688 × 1520); 3M (2048 × 1536); 2304 ×
	Scanning Sys	tem	Progressive						
Min. Illumination 0.0000 LukeP.20 (ptW, 20 lbtP) 0.10 km 0.0000 LukeP.20 (ptW, 20 lbtP) 0.10 km 0.0000 0.10 km 0.10	Electronic Shutter Speed		Auto/Manual	1/3 s-1/100,0	000 s				
S/N Ratio > 56 r/B Illumination Distance 30 rm (96.43 rm) (98] Illuminator On/Off Control Auto; Manual Illuminator On/Off Control 30 rm (96.43 rm) (98] Illuminator Number 3 (78.11D) Pan/Till/Rotation Range Tit: 0"-65" Rotation; 0"-355" Lens Type Fised-focal Note Reduction 3D NR Lens Mount M12 Motion Detection OFF, Note Reduction 3D NR Lens Mount M12 Motion Detection OFF, Note Reduction OFF, Note	Min. Illumination		0.0009 lux@f	2.0 (B/W, 30 II	,			Bit Rate Control	
Blumination Distance Bluminator On/Off Control Auto; Manual Bluminator Number Blumina	S/N Patio							Video Bit Rate	·
BLC Yes		Dieteres						Day/Night	Auto(ICR)/Color/B/W
HLC Yes								BLC	Yes
Pan/Titl/Rotation Range			Auto; Manual					HLC	Yes
PanyTitlyRotation Range Rotation: 0"-355" Rotati	Illuminator N	lumber						WDR	120 dB
Lens Mount M12 Lens Mount M12 Focal Length 2.8 mm; 3.6 mm Max. Aperture F2.0 Field of View 2.8 mm; 1.6 mm; 1.1 mm (4.27 ft) 3.6 mm; 1.9 mm (6.23 ft) Lens Detect Observe Recognize Identify (2.88 mm) 1.3 mm (4.27 ft) 3.6 mm; 1.9 mm (6.23 ft) DORI Distance 1.6 mm (2.88.71 ft) (115.4 mm) (115.4	Pan/Tilt/Rotation Range		Tilt: 0°-65°					White Balance	
Lens Mount M12 Focal Length 2.8 mm; 3.6 mm Max. Aperture F2.0 Field of View 3.6 mm; H: 88°; V: 46°; D: 125° 3.6 mm; H: 88°; V: 46°; D: 104° Iris Control Faxed Mirror Ves Lens Detect Observe Recognize Identify (28.87 ft) (28.87	Lens							Gain Control	Auto; Manual
Focal Length 2.8 mm; 3.6 mm Max. Aperture F2.0 Field of View 2.8 mm; H: 105; V: 56°; D: 125° 3.6 mm; H: 88°; V: 46°; D: 104° Iris Control Fixed Mirror Ves Lens Detect Observe Recognize Identify (28.87 ft) 3.6 mm; 1.9 m (6.23 ft) Lens Detect Observe Recognize Identify (28.87 ft) (115.49 ft) (57.74 ft) (28.87 ft) DORI Distance (16.N-62.67-6.4) 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 manually project design tool. Intelligence Intelligence Network Port Ri-45 (10/100 Base-T) Smart Illumination Ves Mirror Ves Mirror Ves Mirror Ves Multio Ves Audio Built-in MIC Ves Audio Compression G.711a; G.711Mu; PCM; G.726 Alarm No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access, motion detection, video tampering; tripwire; intrusion; audio detection, video tampering; tripwire; intrus	Lens Type		Fixed-focal					Noise Reduction	3D NR
Max. Aperture Field of View 2.8 mm: H: 106°; V: 56°; D: 125° 3.6 mm: H: 88°; V: 46°; D: 104° Iris Control Fixed Mirror Yes Mirror Yes Lens Detect Detect Detect Observe Recognize Identify 1.16 m (28.8.7 th) (115.49 th) (57.74 th) (28.87 th) (63.5.0 th) (140.09 th) (69.88 th) (63.5.0 th) (140.09 th) (69.88 th) (185.00 th) (185.	Lens Mount		M12					Motion Detection	OFF/ON (4 areas, rectangular)
Field of View 2.8 mm: H: 106°; V: 56°; D: 125° 3.6 mm: H: 88°; V: 46°; D: 104° Iris Control Fixed Close Focus Distance 2.8 mm: 1.3 m (4.27 ft) 3.6 mm: 1.9 m (6.23 ft) Lens Detect Detect 105, 77.4 ft) 2.8 mm 106, 7m 105, 7m 105, 7m 106, 7m 106, 7m 107, 7m 107, 7m 108, 8m 108, 7m 1	Focal Length		2.8 mm; 3.6 mm					Region of Interest (RoI)	Yes (4 areas)
Iris Control Fixed Mirror Yes Mirror Yes Mirror Yes	Max. Apertu	re	F2.0					Smart Illumination	Yes
Close Focus Distance 2.8 mm: 1.3 m (4.27 ft) 3.6 mm: 1.9 m (6.23 ft) Lens Detect Observe Recognize Identify 2.8 mm Recognize Identify 2.8 mm Recognize Identify 2.8 mm Recognize Identify Recognize	Field of View							Image Rotation	
Lens Detect Observe Recognize Identify 2.8 mm 88.0 m 35.2 m 17.6 m 8.8 m (28.87 ft) (115.49 ft) (57.74 ft) (28.87 ft) DORI Distance 3.6 mm 106.7 m 42.7 m 21.3 m 10.7 m (35.0.07 ft) (140.09 ft) (69.88 ft) (35.10 ft) *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, refer to installation and commissioning manual/ project design tool. Intelligence IVS (Perimeter Protection) Work together with Smart NVR to perform refine intelligents search, event extraction and merging to event videos Video Video Compression Lens Detect Observe, Recognize Identify) is a standard system (28.8 m to 4.2 m 2.1 m 10.7 m 1	Iris Control		Fixed					Mirror	Yes
2.8 mm (288.0 m) (28.71 ft) (115.49 ft) (57.74 ft) (28.87 ft) DORI Distance 3.6 mm (350.07 ft) (140.09 ft) (69.88 ft) (35.10 ft) **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, refer to installation and commissioning manual/ project design tool. Intrelligence IVS (Perimeter Protection) Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos Video Video Compression ### ABS.0 m (28.87 ft) (115.49 ft) (157.74 ft) (28.87 f	Close Focus I	Distance	, ,					Privacy Masking	4 areas
2.8 mm (288.71 ft) (115.49 ft) (57.74 ft) (28.87 ft) DORI DISTANCE 106.7 m (350.07 ft) (140.09 ft) (69.88 ft) (35.10 ft) POORI (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) Smart Search 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 Video Compression Lack Spiral Alack H. L264H; H.264H; MJPEG (Only supported by the sub stream) Smart Codes Smart Codes Smart Alack H.265 H.264 H.264H; H.264H; MJPEG (Only supported by the sub stream) Lack Spiral Alack H.265 H.264 H.264 H.264 H.264 H.264 H.264 H.264 H.265 H.264 H.264 H.265 H		Lens	Detect	Observe	Recognize	Identify		Audio	
DORI Distance 3.6 mm		2.8 mm						Built-in MIC	Yes
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, refer to installation and commissioning manual/ project design tool. Intelligence								Audio Compression	G.711a; G.711Mu; PCM; G.726
(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, refer to installation and commissioning manual/ project design tool. Intelligence 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 Compression (EN-62676-4) for defining the ability of a person viewing the video to distinct in this table do not reflect intelligent a covery acree in the light access; motion detection; video adapting; idea to support the classification and commissioning manual/ project design tool. Network Network Port SDK and API Yes Network Protocol Interval (10/100 Base-T) SDK and API Yes Network Protocol Interval (19-45; H76; HTTP; TCP; UDP; ARP; RTSP; RTSP; RTSP; RTMP; SMTP; FTF; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; PPPoE; Boujour Video Compression H.265; H.264; H.264H; H.264B; MJPEG (Only supported by the sub stream) Smart Codes Smart H. 265 is Smart H. 2654.								Alarm	
Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human) Smart Search Video Video Compression Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human) SDK and API Yes Network Port SDK and API Yes Network Protocol IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; PPPoE; Boujour Video Compression Network Protocol Interoperability ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone User/Host Onvideo Compression Smart Fodes Smart H 365 is Smart H 364 is Smart H 365 is Smart H 364 is Smart H 365 is Smart H 365 is Smart H 365 is Smart H 364 is Smart H 364 is Smart H 364 is Smart H 364 is Smart H 365 is Smart H 365 is Smart H 365 is Smart H 364 is Smart H 3	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/				he video to numbers in intelligent		Alarm Event	disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; audio
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 Video Compression Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human) SDK and API Yes IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; PPPoE; Boujour Video Compression H.265; H.264; H.264H; H.264B; MJPEG (Only supported by the sub stream) Smart Codes Smart H.365 is Smart H.364 is Smart H.364 is Smart H.364 is Smart H.364 is Smart H.365 is Smart H.364 is Smart H.365 is Smart H.36							Network		
human) Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos Network Protocol				ort the		Network Port	RJ-45 (10/100 Base-T)		
Smart Search intelligent search, event extraction and merging to event videos Network Protocol SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; PPPoE; Boujour ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone Video Compression H.265; H.264; H.264B; MJPEG (Only supported by the sub stream) Smart Codes Smart H.36E is Smart H.36E.	IVS (Perimeter Protection)		classification and accurate detection of vehicle and					SDK and API	Yes
Video Compression H.265; H.264; H.264B; MJPEG (Only supported by the sub stream) User/Host ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone User/Host 20 (Total bandwidth: 48 M)			intelligent search, event extraction and merging to event					Network Protocol	SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP;
by the sub stream) User/Host 20 (Total bandwidth: 48 M)	Video							Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone
Smart Codec Smart H.265+; Smart H.264+ Storage FTP; SFTP; Micro SD card (support max. 256 GB); NAS	Video Compression						User/Host	20 (Total bandwidth: 48 M)	
	Smart Codec		Smart H.265+; Smart H.264+				Storage	FTP; SFTP; Micro SD card (support max. 256 GB); NAS	

Browser	IE Chrome Firefox
Management Software	Smart PSS; DSS; DMSS
Mobile Client	iOS; Android
Cyber Security	Configuration encryption; trusted execution; Digest; security logs; WSSE; account lockout; syslog; Video encryption; 802.1x; IP/MAC filtering; HTTPS; trusted upgrade; trusted boot; firmware encryption; generation and importing of X.509 certification

Certification

	CE-LVD: EN62368-1; CE-EMC: Electromagnetic Compatibility Directive
Certifications	2014/30/EU;
	FCC: 47 CFR FCC Part 15, Subpart B;
	UL/CUL: UL62368-1 & CAN/CSA C22.2 No. 62368-1-14

Power

Power Supply	12 VDC/PoE (802.3af)
Power Consumption	Basic: 2.6 W (12 VDC); 3.3 W (PoE) Max. (H.265+ max. resolution + max. stream+ WDR + IR intensity + IVS): 5.4 W (12 VDC); 6.4 W (PoE)

Environment

Operating Temperature	-40 °C to +60 °C (-40 °F to +140 °F)		
Operating Humidity	≤95%		
Storage Temperature	-40 °C to +60 °C (-40 °F to +140 °F)		
Storage 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				
Туре	Model	Description		
8MP Camera	DH-IPC-HDBW2841E-S	8MP IR Fixed-focal Dome WizSense Network Camera		
	PFA136	Junction Box		
	PFB203W	Wall Mount Bracket		
	PFA109	Mount Adapter		
	PFB220C	Ceiling Mount Bracket		
Accessories	PFA152-E	Pole Mount Bracket		
(Optional)	PFA150	Pole Mount Bracket		
	PFA200W	Rain Shade		
	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



PFA200W Rain Shade



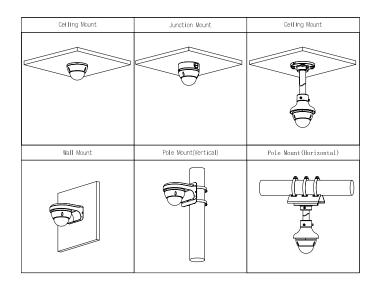
PFM321D 12 VDC 1A Power Adapter



PFM900-E Integrated Mount Tester



TF-P100 MicroSD Memory Card



Dimensions (mm[inch])

