



DH-IPC-HDW2441T-S

4MP IR Fixed-focal Eyeball 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.

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.

- 4-MP 1/2.9" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 4 MP (2688×1520)@20 fps, and supports 2560×1440 @25/30 fps.
- · Support Triple Stream
- 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.
- IP67 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

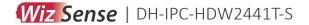
Dahua network cameras employ a series of security technologies, including security authentication and authorization, access control protocols, trusted protection, encrypted transmission and encrypted storage. These technologies improve the camera's defense against external cyber threats and prevent malicious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

Protection (IP67, 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.

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.

Max. Resolution 2688 (H) x 1520 (V)	Technical Specification		on				Stream Capability	3 streams
Mask Resolution							4M (2688 × 1520); 4M (2560 × 1440); 3M (2304 × 1296) 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280	
Bit Rate Control CBR/VBR RAM 128 MS Video Bit Rate Video Bit Rate H254.72 https://datableps. H254.72 https://datable	Image Sensor		1/2.9" CMOS				Resolution	× 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF
Video Bit Rate	Max. Resolution		2688 (H) × 1520 (V)				Bit Rate Control	,
RAM	ROM		128 MB				Video Bit Rate	· · · · · · · · · · · · · · · · · · ·
Electronic Shutter Speed	RAM		128 MB					· · · · · · · · · · · · · · · · · · ·
Electronic Shutter Speed	Scanning System		Progressive					
Min. Illumination	Electronic Shutter Speed		Auto/Manual 1/3 s-1/100,000 s					
Illumination Distance 30 m (98.43 ft) (IR LED) Gain Control Auto; manual	Min. Illuminati	ion	0.0006 lux@F1.6 (B/W, 30IRE)					
Illuminator On/Off Control Illuminator Number 1 (IR LED) Pan/Titt/Rotation Range Pan/Titt/Rotation Range Pan/Titt/Rotation Range Pan/Titt/Rotation Range Pan-0"-360" Titt: 0"-78" Rotation: 0"-360" Titti: 0"-78" Rotation: 0"-78" Rotation: 0"-790"/1807/270" (support 90"/270" wresolution and lower) Titti: 0"-78" Titti	S/N Ratio						White Balance	Auto; natural; street lamp; outdoor; manual; regional custom
Illuminator Number 1 (IR LED) Motion Detection OFF/ON (4 areas, rectangular) Pan: 0"-360" Tilt: 0"-78" Rotation: 0"-360" Illicor -780" Region of Interest (RoI) Ves (4 areas) Lens Lens Type Fixed-focal Mirror Ves Lens Mount M12 Audio Focal Length 2.8 mm; 3.6 mm Max. Aperture F1.6 Built-in MIC Ves 2.8 mm; 3.6 mm: H: 78"; V: 41"; 0: 94" Audio Compression G.711a; G.711Mu; PCM; G.726 Field of View 3.6 mm: H: 78"; V: 41"; 0: 94" Alarm Iris Control Fixed Close Focus Distance 2.8 mm; 0.9 m (2.95 ft) 3.6 mm: 1.6 m (5.25 ft) DORI Distance 7.8 mm; 0.9 m (2.95 ft) 3.6 mm: 1.6 m (5.25 ft) DORI 2.8 mm (2.8 mm; 0.9 m (2.95 ft) (2.0.99 ft) (2.0.90 f	Illumination Di	istance	30 m (98.43 ft) (IR LED)				Gain Control	
Pan/Tilt/Rotation Range Pan: 0"-360" Tilt: 0"-78" Rotation: 0"-360" Lens Lens Type Fixed-focal Lens Mount M12 Lens Mount M2 Lens Mount M32 Lens Mount M34. Aperture F1.6 Field of View 2.8 mm; 3.6 mm Max. Aperture F1.6 Fixed Close Focus Distance 2.8 mm: H: 78"; V: 52"; D: 114" 3.6 mm: H: 78"; V: 41"; D: 94" Alarm Event Alarm Event Alarm Event Alarm Event Mo SD card; SD card full; SD card error; disconnectors; if conflict, lifegal acceleration; delection; video tampering, tinpwire; ire voltage detectors; security exception DORI Distance 3.6 mm 2.8 mm (280.6 ft) (28.3 st) (41.6 ft) (29.9 ft) (41.6 ft) (20.9 ft) (11.2.20 ft) (56.10 ft) (57.8 st) Network Protocol Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human) Video Video Firefox Firefox Firefox Fixed Alarm Event Alarm Event Alarm Event No SD card; SD card full; SD card error; disconnectors; if conflict, lifegal acceleration; video tampering, tinpwire; ire voltage detectors; video tampering, tinpwire; ire voltage tampering, tinpwire; ire voltage tampering, tinpwire; ire voltage t	Illuminator On	n/Off Control	Auto; manua	I			Noise Reduction	3D NR
Pan/Tilt/Rotation Range Region of Interest (Rol) Regious and Secults of Privacy (Region Or Privacy (As Tan As Addio Region of Interest (Rol) Regious and Region (Privacy (As Tan As Addio Regious and Region (Privacy (As Tan As Addio Region of Interest (Rol) Regious and Region (Privacy (As Tan As Addio Regious and Region (Roll) Regious	Illuminator Nu	umber	1 (IR LED)				Motion Detection	OFF/ON (4 areas, rectangular)
Lens Lens Type Fixed-focal Lens Mount M12 Focal Length 2.8 mm; H: 95°; V: 52°; D: 114° 3.6 mm; H: 78°; V: 41°; D: 94° Iris Control Fixed Lens Len	Pan/Tilt/Rotat	ion Range					Region of Interest (RoI)	Yes (4 areas)
Lens Type Fixed focal Fixed focal							Image Rotation	$0^{\circ}/90^{\circ}/180^{\circ}/270^{\circ}$ (Support $90^{\circ}/270^{\circ}$ with 2688×1520 resolution and lower)
Lens Mount M12 Frivacy Masking 4 areas			Fixed-focal				Mirror	Yes
Focal Length Ax. Aperture F1.6 Max. Aperture F1.6 Audio Compression G.711a; G.711Mu; PCM; G.726 Alarm Alarm Iris Control Fixed Close Focus Distance Lens Detect Observe Recognize Lens Detect Observe Recognize Identify Alarm Event Alarm Event Alarm Event No SD card; SD card full; SD card error; disconnecton; IP conflict; illegal access detecton; video tampering; tripwire; in voltage detecton; security excepton Network Network Network Network Network Port RJ-45 (10/100 Base-T) SDK and API Yes Intelligence Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human) Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos Video Wideo Browser Built-in MIC Audio Compression G.711a; G.711Mu; PCM; G.726 Alarm Alarm No SD card; SD card full; SD card error; disconnecton; IP conflict; illegal access detecton, video tampering; tripwire; in voltage detecton; security excepton Network Network Network Port RJ-45 (10/100 Base-T) SDK and API Yes Network Protocol Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human) User/Host 6 (Total bandwidth: 36 M) Storage FTP; SFTP; Micro SD card (support max) Video							Privacy Masking	4 areas
Max. Aperture F1.6 Built-in MIC Audio Compression G.711a; G.711Mu; PCM; G.726 Alarm Alarm Iris Control Fixed Close Focus Distance 2.8 mm: 0.9 m (2.95 ft) 3.6 mm: 1.6 m (5.25 ft) DORI Distance 2.8 mm 63.6 m (25.4 m (208.66 ft) (83.33 ft) (41.67 ft) (20.99 ft) 3.6 mm 3.6 mm 85.4 m (280.18 ft) (112.20 ft) (56.10 ft) 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 Wideo Built-in MIC Audio Compression G.711a; G.711Mu; PCM; G.726 Alarm No SD card; SD card full; SD card error; disconnecton; IP conflict; illegal access detection; video tampering; tripwire; ir voltage detecton; security excepton Network Network Network Network Port SDK and API Yes Network Protocol 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 FIP; SFTP; Micro SD card (support max) Video							Audio	
Field of View 2.8 mm: H: 95°; V: 52°; D: 114° 3.6 mm: H: 78°, V: 41°; D: 94° Alarm							Built-in MIC	Yes
Iris Control Fixed Alarm Event Alarm Even							Audio Compression	G.711a; G.711Mu; PCM; G.726
Close Focus Distance 2.8 mm; 0.9 m (2.95 ft) 3.6 mm; 1.6 m (5.25 ft) Lens Detect Observe Recognize Identify Network Network Network Network Network Port SDK and API Yes 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 Alarm Event disconnecton; IP conflict; illegal access detecton; video tampering; tripwire; ir voltage detecton; video tampering; tripwire; ir voltage detecton; video tampering; tripwire; ir voltage detecton; security exception Network Network Port RJ-45 (10/100 Base-T) SDK and API Yes Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human) Interoperability Onvie (Profile S/Profile T); CGI; P2P; M User/Host 6 (Total bandwidth: 36 M) Storage FTP; SFTP; Micro SD card (support max) Video	Field of View						Alarm	
Lens Detect Observe Recognize Identify Network Network Port RJ-45 (10/100 Base-T) RJ-45 (10/100 Base-T) RJ-45 (10/100 Base-T) RJ-45 (10/100 Base-T) Network Port RJ-45 (10/100 Base-T) Network Po			2.8 mm: 0.9 m (2.95 ft)				Alarm Event	No SD card; SD card full; SD card error; network disconnecton; IP conflict; illegal access; moton detecton; video tampering; tripwire; intrusion; SMD; voltage detecton; security excepton
DORI Distance 2.8 mm 63.6 m (208.66 ft) 3.6 mm 85.4 m (280.18 ft) 12.7 m (41.67 ft) (20.99 ft) 3.6 mm 85.4 m (280.18 ft) 112.20 f	Lens			,	Recognize	Identify	Network	, , ,
Distance (208.66 ft) (83.33 ft) (41.67 ft) (20.99 ft) 3.6 mm 85.4 m (280.18 ft) (112.20 ft) (56.10 ft) (27.89 ft) Intelligence IVS (Perimeter Protection) Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos Video SDK and API Yes IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; N (CMP; IGMP) Interoperability ONVIF (Profile S/Profile T); CGI; P2P; M (CMP) Storage FTP; SFTP; Micro SD card (support max) Video	DORI	2.8 mm						RJ-45 (10/100 Base-T)
Intelligence Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human) Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos Video Network Protocol Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human) User/Host Storage FTP; SFTP; Micro SD card (support max Storage)		2.011111						
Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human) Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos Video Interoperability User/Host 6 (Total bandwidth: 36 M) Storage FTP; SFTP; Micro SD card (support max browser) Video	3.6 mm							IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP
Interoperability ONVIF (Profile S/Profile T); CGI; P2P; Months Smart Search Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos Video Interoperability ONVIF (Profile S/Profile T); CGI; P2P; Months S/Profile T); CGI	Intelligence						Network Protocol	SMTP; FTP; SFTP; DHCP; DNS; DDNS; NTP; Multicast; ICMP; IGMP
Smart Search intelligent search, event extraction and merging to event videos Storage FTP; SFTP; Micro SD card (support max Video Browser IE; Chrome; Firefox	IVS (Perimeter Protection)		classification	,			Interoperability	ONVIF (Profile S/Profile T); CGI; P2P; Milestone
videos Storage FTP; SFTP; Micro SD card (support max) Video Browser IE; Chrome; Firefox	Smart Search		-				User/Host	6 (Total bandwidth: 36 M)
District Lead Hoose Hoose August 1			-	aren, event ext	action and me	18118 to event	Storage	FTP; SFTP; Micro SD card (support max. 256 GB)
U 26/H; U 265; U 26/; U 26/R; MIDEC (Only supported	Video						Browser	IE; Chrome; Firefox
Video Compression Video Compression H.264H; H.264B; MJPEG (Only supported by the sub stream) Management Software DSS; DMSS	Video Compression		H.264H; H.265; H.264; H.264B; MJPEG (Only supported by the sub stream)				Management Software	DSS; DMSS
Smart Codec Smart H.265+; Smart H.264+ iOS; Android	Smart Codec						Mobile Client	iOS; Android
(1–25/30 Tps) Sub-stream: 704 x 576@ (1–25 fps)/704 x 480@ (1–30	Video Frame Rate		Main stream: 2688 × 1520@ (1–20 fps)/2560 × 1440@ (1–25/30 fps) Sub stream: 704 × 576@ (1–25 fps)/704 × 480@ (1–30 fps) Third stream: CIF@1fp *The values above are the max. frame rates of each				Cyber Security	execution;Digest;Security logs;WSSE;Account lockout;syslog;Video encryption;802.1x;IP/MAC filtering;HTTPS;Trusted upgrade;Trusted boot;Generation



Certification

Certifications	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

Power

Power Supply	12 VDC/PoE (802.3af)		
Power Consumption	Basic: 2.5 W (12 VDC); 3.3 W (PoE); Max. (ICR + H.265 + max. resolution + main stream + IR intensity + WDR + IVS): 4.2 W (12 VDC); 5.1 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)
Protection	IP67

Structure

Casing Material	Inner core: Metal Cover: Plastic	
Product Dimensions	100.9 mm × Φ109.9 mm (3.97" × Φ4.33")	
Net Weight	0.37 kg (0.82 lb)	
Gross Weight	0.56 kg (1.23 lb)	

Ordering Information					
Туре	Model	Description			
4MP Camera	DH-IPC-HDW2441T-S	4MP IR Fixed-focal Eyeball WizSense Network Camera			
	PFA13G	Junction Box			
	PFB205W-E	Wall Mount Bracket			
	PFA152-E	Pole Mount Bracket			
Accessories	PFA109	Mount Adapter			
(Optional)	PFB220C	Ceiling Mount Bracket			
	PFM321D	12V DC 1A Power Adapter			
	PFM900-E	Integrated Mount Tester			
	P100	MicroSD Memory Card			

Accessories

Optional:



PFA13G Junction Box



PFB205W-E Wall Mount Bracket



PFA152-E Pole Mount Bracket



PFA109 Mount Adapter



PFB220C Ceiling Mount



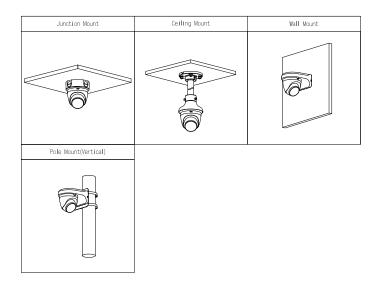
PFM321D 12 VDC 1 A Power Adapter



PFM900-E Integrated Mount Tester



TF-P100 MicroSD Memory Card



Dimensions (mm[inch])

