



DH-IPC-HFW5241E-Z5E

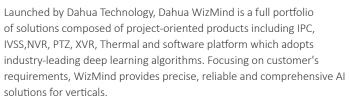
2MP IR Vari-focal Bullet WizMind Network Camera











Series Overview

Driven by deep learning algorithms, Dahua WizMind S Series network camera offers a variety of intelligent functions that greatly improve the accuracy of audio and video analysis. It supports video metadata, smart sound detection, face detection, perimeter protection, people counting and more. The camera also adopts advanced image processing Al ISP technology and has the Deeplight night vision effect. The camera is dustproof, waterproof and vandal-proof, and is certified as IP67 and IK10 (the type of protection varies depending on the model).

Functions

AI-ISP

With AI ISP technology, the camera is able to easily adapt to scenes, producing high quality images that reveal the fine details of targets.

Self-Learning

Empowered by deep learning technology, the device recognizes different types of targets and their statuses through learning and analyzing target features to detect targets and filter out false alarms.

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, fast moving, parking detection, loitering detection and gathering detection) are largely reduced.

AcuPick

This industry-leading search technology effectively utilizes both frontend and back-end intelligence to help with searching through massive video data to quickly and conveniently locate targets with greater precision.

* The parameters and datasheets below can only be applied to 5241-Z-S3 series.

- 2-MP 1/2.8" CMOS image sensor, low luminance, and high definition image.
- · Outputs max. 2MP (1920×1080) @25/30 fps.
- Built-in IR LED, and the max. illumination distance is 120 m.
- ROI, SVC, SMART H.264+/H.265+, AI H.264/H.265, encoding after filter, flexible coding, applicable to various bandwidth and storage environments.
- · Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes.
- · With deep learning algorithm, it supports: video metadata, smart sound detection, IVS, face detection, smart object detection, and people counting, etc.
- · Alarm: 2 in, 1 out; audio: 1 in, 1 out; supports max. 1 TB Micro SD card, built-in MIC.
- 12 VDC/PoE power supply; ePoE.
- IP67 and IK10 protection.
- SMD 3.0.













People Counting

With deep learning algorithm, Dahua People Counting technology can track and process moving human body targets to realize the accurate statistics of enter No., leave No., and In Area No. Working with management platform, it outputs reports to meet your requirements.

Video Metadata

With deep learning algorithm, Dahua Video Metadata technology can detect, track, capture vehicle, non-motor vehicle and people, and select the best images, and extract attributes.

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.

AcuPick

Technical Specification							AI SSA	Yes
Camera								Face detection; track; snapshot; snapshot optimization;
Image Sensor		1/2.8" CMOS					Face Detection	optimal face snapshot upload; face enhancement; face exposure; face attributes extraction including 6 attributes and 8 expressions; face snapshot set as face, one-inch photo or custom; snapshot strategies (real-time snapshot, quality priority and optimization snapshot); face angle filter; optimization time setting.
Max. Resolution		1920 (H) × 1080 (V)						
ROM		4 GB						
RAM		1 GB					People Counting	Tripwire people counting, generating and exporting report (day/week/month/year); people counting in area and queue management; generating and exporting report (day/week/month); 4 rules can be set for tripwire, people counting in area and queue management.
Scanning System		Progressive						
Electronic Shutter Speed		Auto/Manual 1/3 s-1/100,000 s						
Min. Illumination		0.0007 lux@F1.6 (Color, 30 IRE) 0.0004 lux@F1.6 (B/W, 30 IRE) 0 lux (Illuminator on)					Heat Map	Yes Motor vehicle, non-motor vehicle, face, human body
S/N Ratio		>56dB						detection; track; snapshot; snapshot optimization; optimal face snapshot upload.
Illumination	Illumination Distance		(393.70 ft) (IR)					Motor vehicle attributes: vehicle type, vehicle color,
Illuminator On/Off Control		Auto; Zoomprio; Manual					Video Metadata	vehicle logo and other attributes : seatbelt, smoking, calling. Non-motor vehicle attributes: type, color, number of
Illuminator N	umber	4 (IR LED)						people, top type and color, hat. Human body attributes: gender, top/bottom type and
Angle Adjustment		Pan: 0°–360° Tilt: 0°–90° Rotation: 0°–360°						color, bag, hat and umbrella. Face attributes: gender, age, expressions, glasses, face mask and beard.
Lens							Smart Search	Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos
Lens Type		Motorized vari-focal					Smart Sound Detection	Yes
Lens Mount		Module					Video	
Focal Length		7 mm-35 mm					Video Compression	H.265; H.264; H.264H; H.264B; MJPEG (Only supported by the sub stream)
Max. Aperture		F1.6					Smart Codec	Smart H.265+; Smart H.264+
Field of View		H: 30°-11°; V: 17°-6°; D: 35°-13°					Al Coding	AI H.265; AI H.264
Iris Control		Auto						Main stream: 1080p@(1–25/30 fps)
Close Focus Distance		1.5 m (4.92 ft)						Sub stream: D1@(1-25/30 fps) Third stream: 1080p@(1-25/30 fps)
	Lens	Detect	Observe	Recognize	Identify		Video Frame Rate	Fourth stream: 720p@(1–25/30 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.
	W	147.3 m (483.27 ft)	58.9 m (193.24 ft)	29.5 m (96.78 ft)	14.7 m (48.23 ft)			
	Т	395.0 m (1295.93 ft)	158.0 m (518.37 ft)	79.0 m (259.19 ft)	39.5 m (129.59 ft)		Stream Capability	4 streams
DORI Distance	*DORI (Detect, Observe, Recognize, Identify) is a standard system (EN-62676-4) for defining the ability of a person viewing the						Resolution	1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)
	numbers in t	video to distinguish persons or objects within a covered area. The numbers in this table do not reflect intelligent function distances.					Bit Rate Control	CBR/VBR
· ·		nt function distances, refer to installation and ng manual/project design tool.					Video Bit Rate	H.264: 32 kbps–12032 kbps; H.265: 12 kbps–7424 kbps
Intelligend	ce						Day/Night	Auto(ICR)/Color/B/W
IVS (Perimeter Protection)		Intrusion, tripwire, fast moving (the three functons support the classification and accurate detection of					BLC	Yes
		vehicle, animal and human); loitering detecton, people gathering, parking detecton. Supports long- distance mode. Supports self-learning, it filters out false alarms.					HLC	Yes
Smart Object Detection		Smart abandoned object; smart missing object					WDR	120 dB
SMD		SMD 3.0					Scene Self-adaptation (SSA)	Yes
4 8:1		Uses deep learning algorithms and works with back-end devices to accurately match targets, such					White Balance	Auto; natural; street lamp; outdoor; manual; regional custom

Gain Control

Auto

as people, animal, and motor vehicles, and search

through live and recorded videos to quickly locate

Noise Reduction	3D NR			
Motion Detection	OFF/ON (4 areas, rectangular)			
Region of Interest (RoI)	Yes (4 areas)			
Image Stabilization	Electronic Image Stabilization (EIS)			
Defog	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	8 areas			
Audio				
Built-in MIC	Yes			
Audio Compression	G.711a; G.711Mu; PCM; G.726; G.723			
Alarm				
Alarm Event	No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; fast moving; abandoned object; missing object; loitering detection; people gathering; parking detection; scene changing; audio detection; voltage detection; external alarm; face detection; video metadata; SMD; people counting in area; stay detection; people counting; people number error detection; queue people number alarm; queue time alarm; security exception; defocus detection			
Network				
Network Port	RJ-45 (10/100 Enhancement Base-T)			
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; SAMBA; PPPoE; SNMP; P2P; Auto Register			
Interoperability	ONVIF (Profile S/Profile G/Profile T/Profile M); CGI			
User/Host	20 (Total bandwidth: 80 M)			
Storage	FTP; SFTP; Micro SD card (support max. 1 TB); NAS			
Browser	IE: IE 9 and later Chrome: Chrome 102 and later Firefox: Firefox 88 and later			
Management Software	SmartPSS Lite; 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				
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			
Port				
Audio Input	1 channel (RCA port)			
Audio Output	1 channel (RCA port)			

Alarm Input	2 channels in: wet contact, 5mA 3V–5V DC		
Alarm Output	1 channel out: wet contact, 300mA 12V DC		
Power			
Power Supply	12 VDC/PoE (802.3af)/ePoE		
Dual Power Backup	When the power adapter and PoE provide power at the same time, disconnect one of them. The device will continue to work, but will not restart.		
Power Consumption	Basic: 3.4 W (12 VDC); 4.5 W (PoE) Max. (H.265+ WDR+ Intelligence on+IR on): 9.3 W (12 VDC); 11.6 W (PoE)		
Environment			
Operating Temperature	−30 °C to +60 °C (−22 °F to +140 °F)		
Operating Humidity	≤95%		
Storage Temperature	-40 °C to +60 °C (-40 °F to +140 °F)		
Storage Humidity	10%–95% (RH), non-condensing		
Protection	IP67; IK10		
Structure			
Casing Material	Metal		
Product Dimensions	273.2 mm × 95.0 mm × 95.0 mm (10.76" × 3.74" × 3.74" (L × W × H)		
Net Weight	1.13 kg (2.49 lb)		

Ordering Information					
Туре	Model	Description			
2MP	DH-IPC-HFW5241E-Z5E	2MP IR Vari-focal Bullet WizMind Network Camera			
Camera	IPC-HFW5241E-Z5E	2MP IR Vari-focal Bullet WizMind Network Camera			
	PFA121	Water-proof Junction Box			
	PFA156	Pole Mount Bracket			
Accessories (Optional)	PFM321D	12 VDC 1 A Power Adapter			
	PFM900-E	Integrated Mount Tester			
	TF-P100	MicroSD Memory Card			

1.68 kg (3.70 lb)

Gross Weight

Accessories

Optional:

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PFA121 Water-proof Junction Box



PFA156 Pole Mount Bracket



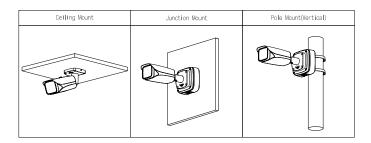
PFM321D 12 VDC 1 A Power Adapter



PFM900-E Integrated Mount Tester



TF-P100 MicroSD Memory Card



Dimensions (mm[inch])

