



# DH-IPC-HFW5241E-Z5E

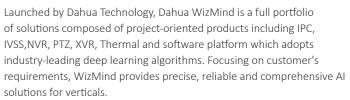
2MP IR Vari-focal Bullet WizMind Network Camera











### **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.

## 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							AISSA	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
S/N Ratio	S/N Ratio							Motor vehicle, non-motor vehicle, face, human body detection; track; snapshot; snapshot optimization; optimal face snapshot upload.
Illumination Distance		Up to 120 m (393.70 ft) (IR)						Motor vehicle attributes: vehicle type, vehicle color, vehicle logo and other attributes : seatbelt, smoking,
Illuminator C	Illuminator On/Off Control		rio; Manual				Video Metadata	calling.  Non-motor vehicle attributes: type, color, number of
Illuminator N	lumber	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	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	Lens Mount		Module				Video	
Focal Length	Focal Length		n				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	Field of View		/: 17°–6°; D: 35	°-13°			Al Coding	AI H.265; AI H.264
Iris Control		Auto						Main stream: 1080p@(1–25/30 fps) Sub stream: D1@(1–25/30 fps) Third stream: 1080p@(1–25/30 fps)
Close Focus I	Distance	1.5 m (4.92 ft)						
	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
	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)			stream; for multiple streams, the values will be subjected to the total encoding capacity.
5.051	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 video to distinguish persons or objects within a covered area. 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	this table do n	ot reflect inte	lligent function	on distances.		Bit Rate Control	CBR/VBR
		nt function distances, refer to installation and ing manual/project design tool.					Video Bit Rate	H.264: 32 kbps–12032 kbps; H.265: 12 kbps–7424 kbps
Intelligence						Day/Night	Auto(ICR)/Color/B/W	
IVS (Perimeter Protection)		Intrusion, tripwire, fast moving (the three functions support the classification and accurate detection of					BLC	Yes
		vehicle, animal and human); loitering detection, people gathering, parking detection. Supports long-distance					HLC	Yes
Smart Object Detection		mode. Supports self-learning, it filters out false alarms.  Smart abandoned object; smart missing object					WDR	120 dB
SMD		SMD 3.0					Scene Self-adaptation (SSA)	Yes
AcuBick		Uses deep learning algorithms and works with back-end devices to accurately match targets, such as people animal and motor vehicles, and search					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	
Security	Trusted execution; Digest; Security logs; WSSE; Account lockout; Syslog; 802.1x; IP/MAC filtering; HTTPS; Trusted upgrade; Trusted boot; 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 $\times$ 95.0 mm $\times$ 95.0 mm (10.76" $\times$ 3.74" $\times$ 3.74") (L $\times$ W $\times$ 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:



PFA121 Water-proof Junction Box



PFA156 Pole Mount Bracket



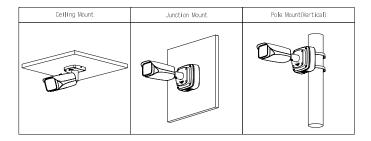
PFM321D 12 VDC 1 A Power Adapter



PFM900-E Integrated Mount Tester



TF-P100 MicroSD Memory Card



# Dimensions (mm[inch])

