DH-IPC-HDBW5541E-ZE

5MP IR Vari-focal Dome WizMind Network Camera



Launched by Dahua Technology, Dahua WizMind is a full portfolio of solutions composed of project-oriented products including IPC, NVR, PTZ, XVR, Thermal and software platform which adopts industry-leading deep learning algorithms. Focusing on customer's requirements, WizMind provides precise, reliable and comprehensive AI solutions for verticals.

Series Overview

With starlight solution and deep learning algorithm, Dahua WizMind 5 Series network camera has various intelligent functions, including face capture, perimeter protection and people counting, which greatly improve the accuracy of video analysis.

Functions

Face Detection

Dahua Face Detection technology can detect the face in the image. With deep learning algorithm, the technology supports detecting, tracking, capturing and selecting the best face image, and then outputs face snapshot.

Face Attributes

With deep learning algorithm, the network camera can recognize face attributes, such as gender, age, expression, glasses, mouth mask, and beard.

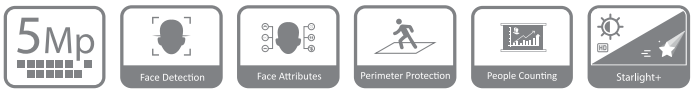
Perimeter Protection

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.

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 yearly/monthly/daily reports to meet your requirements.

- 5-MP 1/2.7" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 5MP (2592 × 1944)@20 fps , and supports 4MP (2688 × 1520)@25/30 fps
- Built-in IR LED, and the max. illumination distance is 40 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.
- Three switchable intelligent resources: IVS, face detection, and people counting.
- Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card.
- 24 VAC/12 VDC/PoE power supply, easy for installation.
- ePoE; IP67 and IK10 protection.
- SMD 3.0.



ePoE

Dahua's innovative ePoE technology offers a new solution to transmit power and data over long distances between cameras and network switch, allowing more flexible design of surveillance system, improving reliability, reducing installation time and saving money. ePoE technology encompasses pure network systems where a single CAT6 cable can carry signals up to 300 m (984 ft) at 100 Mbps, 800 m (2625 ft) at 10 Mbps.

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 works normal 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 6.5	1/2.7" CMOS
Max. Resolution 6.1	2592 (H) × 1944 (V)
ROM	128 MB
RAM	1 GB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination 6.4	0.005 lux@F1.5 (Color, 30 IRE) 0.0005 lux@F1.5 (B/W, 30 IRE) 0 lux (Illuminator on)
S/N Ratio	>56 dB
Illumination Distance	40 m (131.23 ft) (IR)
Illuminator On/Off Control	Auto
Illuminator Number	3 (IR LED)
Pan/Tilt/Rotation Range	Pan: 0°–355° Tilt: 0°–65° Rotation: 0°–355°

Lens

Lens Type	Motorized vari-focal
Lens Mount	ϕ14
Focal Length 6.6	2.7 mm–13.5 mm
Max. Aperture	F1.5
Field of View	Horizontal: 100°–28° Vertical: 72°–21° Diagonal: 133°–35°
Iris Control	Auto
Close Focus Distance	0.8 m (2.62 ft)

	Lens	Detect	Observe	Recognize	Identify
DORI Distance	W	64 m (209.97 ft)	25.6 m (83.99 ft)	12.8 m (41.99 ft)	6.4 m (21.00 ft)
	T	212 m (695.54 ft)	84.8 m (278.22 ft)	42.4 m (139.11 ft)	21.2 m (69.55 ft)

Smart Event

IVS 6.8	Abandoned object; missing object
Heat Map	Yes

Professional, intelligent

IVS (Perimeter Protection) 6.8	Intrusion, tripwire, fast moving (the three functions support the classification and accurate detection of vehicle and human); loitering detection, people gathering, and parking detection
SMD 3.0	Less false alarm, longer detection distance
Face Detection	Face detection; track; snapshot; snapshot optimization; optimal face snapshot upload; face enhancement; face exposure; face attributes extraction including 6 attributes (gender, age, glasses, expressions, mask, and beard) and 8 expressions (angry, sad, disgusted, scared, surprised, calm, happy, confused); face snapshot set as face or one-inch photo; snapshot strategies (real-time snapshot, quality priority and optimization snapshot); face angle filter; optimization time setting
People Counting	Support the counting of enter number, leave number and pass number, and displaying and outputting yearly/monthly/daily reports.Support the counting of number in area, and 4 rules configuration. Count number of people or stay time and link alarm.Support queue management, and 4 rules configuration. Count number of people or stay time and link alarm.
Smart Search	Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos

Video

Video Compression 6.12	H.265; H.264; H.264H; H.264B; MJPEG (Only supported by the sub stream)
Smart Codec	Smart H.265+; Smart H.264+
AI Coding	AI H.265; AI H.264
Video Frame Rate 6.2	Main stream: 2592 × 1944@(1-20 fps)/2688 × 1520@(1-25/30 fps) /1920 × 1080@(1-50/60 fps) Sub stream: D1@(1 fps–50/60 fps) Third stream: 1080p@(1 fps–50/60 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 6.10	3 streams
Resolution	2592 × 1944; 2688 × 1520; 2304 × 1296; 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–8192 kbps H.265: 32 kbps–8192 kbps
Day/Night 6.3	Auto(ICR)/Color/B/W
BLC	Yes
HLC	Yes
WDR 6.9	120 dB
Scene Self-adaptation (SSA)	Yes
White Balance	Auto; natural; street lamp; outdoor; manual; regional custom
Gain Control	Auto; manual
Noise Reduction	3D NR
Motion Detection 6.7	OFF/ON (4 areas, rectangular)
Region of Interest (RoI)	Yes (4 areas)
Image Stabilization	Electronic Image Stabilization (EIS)
Smart Illumination	Yes
Defog	Yes
Image Rotation	0°/90°/180°/270° (Support 90°/270° with 4M resolution and lower)
Mirror	Yes
Privacy Masking	8 areas

Audio

Audio Compression	PCM; G.711a; G.711Mu; 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; defocus detection; scene changing; tripwire; intrusion; abandoned object; missing object; fast moving; parking detection; loitering detection; people gathering; input error; intensity change; people counting; face detection; voltage detection; people counting in area; stay detection; people number error detection; queue management

Network

Network Port 6.14	RJ-45 (10/100 Enhancement Base-T)
SDK and API 6.17	Yes
Cyber Security 6.15	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
Network Protocol 6.13 6.15	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; Bonjour
Interoperability 6.11	ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone
User/Host	20 (Total bandwidth: 80 M)
Storage 6.16	FTP; SFTP; Micro SD card (support max. 256 GB); NAS
Browser	IE: IE8 and later Chrome Firefox
Management Software	Smart PSS, DSS, DMSS
Mobile Client	iOS; Android

Certification

Certifications 6.18	CE-LVD: EN 62368-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07

Port

Audio Input	1 channel (terminal)
Audio Output	1 channel (terminal)
Alarm Input	1 channels in: 5 mA 3 V–5 VDC
Alarm Output	1 channel out: 300 mA 12 VDC

Power

Power Supply	12 VDC (±25%)&24 VAC (±30%); PoE (802.3af); ePoE
Power Consumption	Basic: 4.9 W (12 VDC); 5.1 W (24 VAC); 5.2 W (PoE) Max. (max. stream + intelligence + IR on + focus): 12.4 W (12 VDC); 11.9 W (24 VAC); 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)
Protection	IP67; IK10

Structure

Casing	Metal + plastic
Product Dimensions	Φ159 mm × 117.9 mm (6.26" × 4.64")
Net Weight	950 g (2.09 lb)
Gross Weight	1200 g (2.65 lb)

Ordering Information

Type	Model	Description
5MP Camera	DH-IPC-HDBW5541EP-ZE	5MP IR Vari-focal Dome WizMind Network Camera, PAL
	DH-IPC-HDBW5541EN-ZE	5MP IR Vari-focal Dome WizMind Network Camera, NTSC
Accessories (Optional)	PFA138	Junction Box Bracket
	PFB211W	Wall Mount Bracket
	PFB300C	Ceiling Mount Bracket
	PFA152-E	Pole Mount Bracket
	PFB201C	In-ceiling Mount Bracket
	PFA101	Mount Adapter
	PFM321D	12 VDC 1A Power Adapter
	PFM900-E	Integrated Mount Tester
	TF-P100/256G	MicroSD Memory Card

Accessories

Optional:



PFA138
Junction Box
Bracket



PFB211W
Wall Mount
Bracket



PFB300C
Ceiling Mount
Bracket



PFA152-E
Pole Mount
Bracket



PFB201C
In-ceiling Mount
Bracket



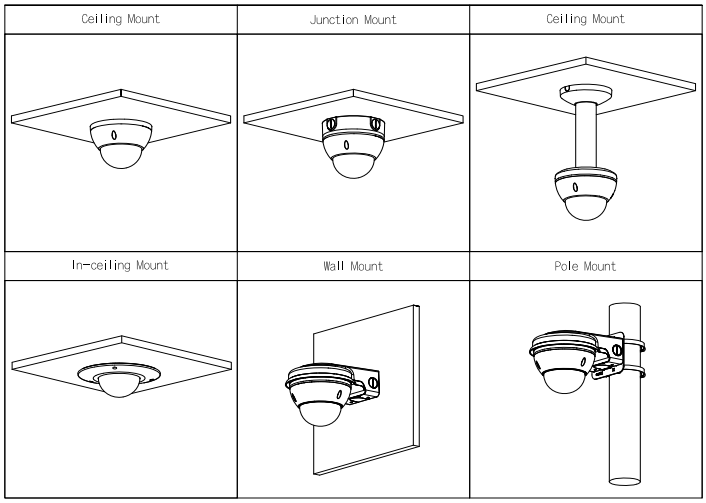
PFM321D
12 VDC 1A Power
Adapter



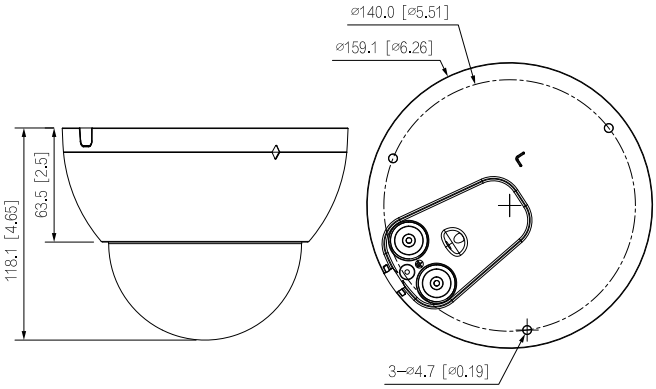
PFM900-E
Integrated
Mount Tester



TF-P100/256G
MicroSD
Memory Card



Dimensions (mm[inch])



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