DH-IPC-HFW5449T1-ZE-LED

4MP Full-color Vari-focal Warm LED Bullet 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. The series camera supports dust-proof function, waterproof function and vandal-proof function, complying with the standards of IP67 and IK10 (Supported by some select models).

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.

· 4MP 1/1.8" CMOS image sensor, low illuminance, high image definition.

· Outputs max. 4MP (2688 × 1520) @30 fps.

· Built-in warm illuminator, and the max. illumination distance is 70 m.

· ROI, SVC, SMART H.264 +/H.265+, AI 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.

· Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card, built-in Mic and speaker, support two-way talk.

· 12V DC/PoE power supply.

· ePoE, IP67 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 yearly/monthly/daily reports to meet your requirements.

Full-color

With high-performance sensor and large aperture lens, Dahua Full-color technology can display clear colorful image in the environment of ultra-low illuminance. With this photosensitivity technology, the camera can capture more available light, and display more colorful image details.

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, 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.
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	1/1.8" CMOS
Max. Resolution	2688 (H) × 1520 (V)
ROM	128 MB
RAM	512 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.0005 Lux@F1.0
S/N Ratio	> 56 dB
Illumination Distance	70 m (229.66 ft)
Illuminator On/Off Control	Auto; Manual; Zoomprio
Illuminator Number	4 (Warm light)
Pan/Tilt/Rotation Range	Pan: 0°–360° Tilt: -20°–90° Rotation:0°–360°

Lens

Lens Type	Motorized vari-focal
Mount Type	φ16
Focal Length	2.7 mm–12 mm
Max. Aperture	F1.0
Field of View	Horizontal: 115°–48° Vertical: 59°–27° Diagonal: 142°–55°
Iris Type	Auto
Close Focus Distance	1.75m(5.74 ft)

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	W	60.4 m (198.2 ft)	24.1 m (79.1 ft)	12 m (39.4 ft)	6 m (19.7 ft)
	T	128.6 m (421.9 ft)	51.4 m (168.6 ft)	25.7 m (84.3 ft)	12.8 m (42.0 ft)

Smart event

IVS	Abandoned object; missing object
Heat Map	Yes

Professional, intelligent

IVS (Perimeter Protection)	Tripwire; intrusion; fast moving (the three functions support the classification and accurate detection of vehicle and human); loitering detection; people gathering; parking detection
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/weekly/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 Support queue management, and 4 rules configuration. Count number of people or stay time and link alarm.
Intelligent Search	Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos.

Video

Video Compression	H.265; H.264; H.264H; H.264B; MJPEG (only supported by the sub stream)
Smart Codec	Smart H.265+/Smart H.264+
Video Frame Rate	Main stream: 2688 × 1520 (1 fps–25/30 fps) /1920 × 1080 (1 fps–50/60 fps) Sub stream: D1 (1 fps–25/30 fps) Third stream: 1080p (1 fps–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.
Stream Capability	3 streams
Resolution	4M (2688 × 1520); 4M (2560 × 1440); 3M (2304 × 1296); 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (354 × 288/354 × 240)
Bit Rate Control	CBR/VBR
Video Bit Rate	H.264: 3 kbps–20480 kbps H.265: 3 kbps–20480 kbps
Day/Night	Color/B/W
BLC	Yes
HLC	Yes
WDR	140 dB
Defog	Yes
White Balance	Auto/natural/street lamp/outdoor/manual/regional custom
Gain Control	Auto/Manual
Noise Reduction	3D NR
Motion Detection	OFF/ON (4 areas, rectangular)
Region of Interest (RoI)	Yes (4 areas)
Image Rotation	0°/90°/180°/270°
Mirror	Yes
Privacy Masking	8 areas

Audio

Built-in MIC	Yes
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; scene changing; intrusion; tripwire; abandoned object; missing object; fast moving; parking detection; loitering detection; people gathering; input abnormal detection; intensity change detection; people counting; face detection; people counting in area; stay alarm; people No. exception detection; queue management

Network

Network	RJ-45 (10/100 Base-T)
SDK and API	Yes
Network Protocol	IPv4; IPv6; HTTP; HTTPS; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; 802.1x; SNMP
Cyber Security	Video encryption; configuration encryption; Digest; WSSE; account lockout; security logs; generation and importing of X.509 certification; HTTPS; trusted boot; trusted execution; trusted upgrade
Interoperability	ONVIF(Profile S/Profile G/Profile T); CGI; Milestone; P2P
User/Host	20 (Total bandwidth: 80 M)
Storage	FTP; SFTP; Micro SD card (support max. 256 G); NAS
Browser	IE: IE8 and later Chrome Firefox
Management Software	Smart PSS; DSS; DMSS
Mobile Client	IOS; Android

Certification

Certifications	CE-LVD: EN62368-1 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 (RCA port)
Audio Output	1 channel (RCA port)
Alarm Input	1 channel in: 5mA 3V–5V DC
Alarm Output	1 channel out: 300mA 12V DC

Power

Power Supply	12V DC (±30%)/PoE (802.3af)/ePoE
Power Consumption	Basic: 2.4 W (12 VDC); 3.4 W (PoE) Max. (H.265 + 3 streams + intelligence + LED): 7.6 W (12 VDC); 9.3 W (PoE)

Environment

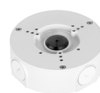|	
Operating Conditions	−30°C to +60°C (−22°F to +140°F)/Less than 95% RH
Storage Conditions	−40°C to +60°C (−40°F to +140°F)
Protection Grade	IP67

Structure

Casing	Metal
Dimensions	288.4 mm × 94.4 mm × 84.7 mm (11.4" × 3.7" × 3.3") (L × W × H)
Net Weight	1.0 kg (2.2 lb)
Gross Weight	1.23 kg (2.7 lb)

Ordering Information

Type	Part Number	Description
4MP Camera	DH-IPC-HFW5449T1P-ZE-LED-2712	4MP Full-color Vari-focal Warm LED Bullet WizMind Network Camera, PAL
	IPC-HFW5449T1P-ZE-LED-2712	4MP Full-color Vari-focal Warm LED Bullet WizMind Network Camera, PAL
Accessories (optional)	PFA130-E	Junction Box
	PFA152-E	Pole Mount
	PFM321D	12V DC 1A Power Adapter
	PFM900-E	Integrated Mount Tester
	TF-P100	MicroSD Memory Card

Accessories

Optional:

PFA130-E
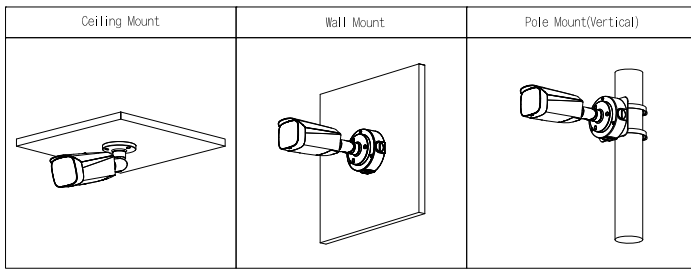Junction Box

PFA152-E
Pole Mount

PFM321D
12V DC 1A Power Adapter

PFM900-E
Integrated Mount Tester

TF-P100
MicroSD Memory Card

Ceiling Mount	Wall Mount	Pole Mount(Vertical)

Dimensions (mm[inch])

288.4 [11.35]

197.3 [7.77]

94.4 [3.72]

84.7 [3.33]

⌀90.4 [⌀3.56]

⌀70.0 [⌀2.76]

3-⌀4.7 [⌀0.19]