DH-IPC-HFW5449T1-ASE-D2
4 MP Dual Lens Fixed-focal Bullet WizMind Full-color Network Camera

ePoE **WizMind**

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.

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.

Multi-spectrum Fusion
Dahua Multi-Spectrum Fusion technology extracts the details and brightness of the visible spectrum and infrared spectrum to make the fusion brightness close to the visible light brightness, so that the camera provides a better image.

· Dual AI sensors with multi-spectral imaging technology that produces colorful images in low illumination conditions.
· Outputs max. 4 MP (2688 × 1520)@25/30 fps.
· Built-in warm light/IR LED, with a maximum illumination distance of 50 m.
· ROI, SMART H.264+/H.265+, AI H.264/H.265, flexible coding, applicable to various bandwidth and storage environments.
· Rotation mode, DWDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes.
· Intelligent monitoring: Intrusion, tripwire, fast moving (the three functions support the classification and accurate detection of vehicle and human); abandoned object, missing object, loitering detection, people gathering, and parking detection.
· Face detection: Track, snapshot, snapshot optimization, optimal face snapshot upload, face enhancement, and face exposure.
· People counting: Queue management, people counting in area, entered/exited people counting, and generating and exporting report (day/month/year).
· 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.
· 12 VDC/PoE power supply.
· IP67 protection.

4Mp | Perimeter Protection | People Counting | Face Detection | IP67

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" + 1/1.8" CMOS
Max. Resolution	2688 (H) × 1520 (V)
ROM	128 MB
RAM	1 GB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.0002 lux @F1.0
S/N Ratio	>56 dB
Illumination Distance	50 m (164.04 ft)
Illuminator On/Off Control	Auto; manual
Illuminator Number	4 (IR light); 2 (warm light)
Pan/Tilt/Rotation Range	Pan: 0°–360° Tilt: 0°–90° Rotation: 0°–360°

Lens

Lens Type	Fixed-focal
Lens Mount	M16
Focal Length	2.8 mm; 3.6 mm; 6 mm
Max. Aperture	F1.0
Field of View	2.8 mm: Horizontal: 97°; Vertical: 48°; Diagonal: 115° 3.6 mm: Horizontal: 75°; Vertical: 39°; Diagonal: 87° 6 mm: Horizontal: 47°; Vertical: 25°; Diagonal: 56°
Iris Control	Fixed
Close Focus Distance	2.8 mm: 4 m (13.1 ft) 3.6 mm: 5 m (16.4 ft) 6 mm: 6 m (19.7 ft)

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	58.2 m (190.94 ft)	23.3 m (76.44 ft)	11.6 m (38.06 ft)	5.8 m (19.03 ft)
	3.6 mm	70.3 m (230.64 ft)	28.1 m (92.19 ft)	14.1 m (46.26 ft)	7.0 m (22.97 ft)
	6 mm	116.1 m (380.91 ft)	46.5 m (152.56 ft)	23.2 m (76.12 ft)	11.6 m (38.06 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

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 face attributes (gender, age, glasses, expressions, mask, and beard) and 8 expressions (angry, sad, disgusted, scared, surprised, calm, happy, confused); face snapshot set as face, one-inch photo or custom; 3 snapshot strategies (real-time snapshot, optimization snapshot and quality first); 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.
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.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	Main stream: 2688 × 1520@(1–25/30 fps) Sub stream: 704 × 576@(1–25 fps)/704 × 480@(1–30 fps) Third stream: 1920 × 1080@(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.
Stream Capability	3 streams
Resolution	4M (2688 × 1520); 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: 19 kbps–8192 kbps
Day/Night	Color/B/W
BLC	Yes
HLC	Yes
WDR	DWDR
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° (Support 90°/270° with 1080p resolution and lower)

Mirror	Yes
Privacy Masking	4 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; tripwire; intrusion; fast moving; abandoned object; missing object; loitering detection; people gathering; parking detection; scene changing; audio detection; voltage detection; face detection; people counting in area; stay detection; people counting; people number error detection; security exception; defocus detection; people number alarm; queue time alarm

Network

Network Port	RJ-45 (10/100 Enhancement Base-T)
SDK and API	Yes
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
Network Protocol	IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; SMTP; FTP; DHCP; DNS; NTP; Multicast; DDNS
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; Milestone; Genetec; P2P
Storage	FTP; SFTP; Micro SD card (support max. 256 G); NAS
Browser	IE: IE8, IE9, IE11 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: 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	1 channel in: 5 mA 3 V–5 VDC
Alarm Output	1 channel out: 300 mA 12 VDC

Power

Power Supply	12 VDC (±30%); PoE (802.3af); ePoE
Power Consumption	Basic: 3.4 W (12 VDC); 4.5 W (PoE) Max. (H.265+IR and Warm light on): 9.9 W (12 VDC); 11.8 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	Metal
Product Dimensions	288.4 mm × 94.4 mm × 84.7 mm (11.35" × 3.72" × 3.33") (L × W × H)
Net Weight	1.0 kg (2.20 lb)
Gross Weight	1.23 kg (2.71 lb)

Ordering Information

Type	Part Number	Description
4 MP Camera	DH-IPC-HFW5449T1P-ASE-D2-0280B	4 MP Dual Lens Fixed-focal Bullet WizMind Full-color Network Camera
	DH-IPC-HFW5449T1P-ASE-D2-0360B	4 MP Dual Lens Fixed-focal Bullet WizMind Full-color Network Camera
	DH-IPC-HFW5449T1P-ASE-D2-0600B	4 MP Dual Lens Fixed-focal Bullet WizMind Full-color Network Camera
	IPC-HFW5449T1P-ASE-D2-0280B	4 MP Dual Lens Fixed-focal Bullet WizMind Full-color Network Camera
	IPC-HFW5449T1P-ASE-D2-0360B	4 MP Dual Lens Fixed-focal Bullet WizMind Full-color Network Camera
	IPC-HFW5449T1P-ASE-D2-0600B	4 MP Dual Lens Fixed-focal Bullet WizMind Full-color Network Camera
Accessories (Optional)	PFA130-E	Junction Box
	PFA152-E	Pole Mount
	PFM321D	12 VDC 1A Power Adapter
	PFM900-E	Integrated Mount Tester
	TF-P100	MicroSD Memory Card

Accessories

Optional:

PFA130-E
Junction Box

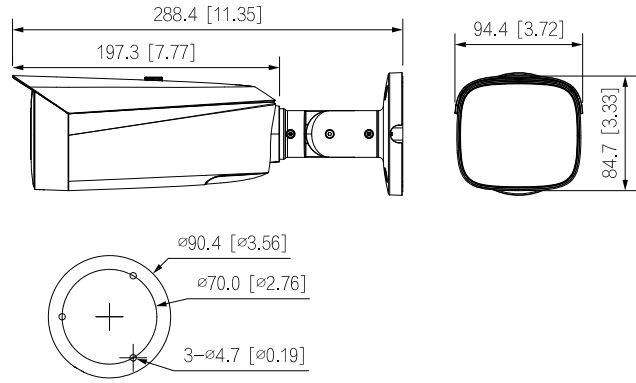PFA152-E
Pole Mount

PFM321D
12 VDC 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]