DH-IPC-HFS7443-Z-LI-D2

4MP Polar Light Bullet WizMind Network Camera

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

Equipped with dual-sensor construction and multispectral merging technology, Dahua Polar Light series network camera can realize color imaging in the environment of low illuminance to provide better experience. Based on deep learning algorithm, the camera supports various intelligent functions, such as precise classification of human, motor vehicle and non-motor vehicle, face recognition, and face detection, to meet different needs of customers. The camera has ultra-starlight night vision, ultra-low bit rate, complying to the standards of IP67.

Functions

Polar Light 2.0
With multispectral merging technology and image merging algorithm, Dahua Polar Light 2.0 technology can realize color imaging in the environment of ultra-low illuminance to provide better experience.

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 Light Fusion
Dahua Dual Light Fusion technology integrates the light sources of different waves. With good illumination, it meanwhile can minimize the light pollution to avoid dazzle problem. The camera provides multiple illumination solutions to satisfy different demands.

- Built-in GPU chip and deep learning algorithm, improve detection accuracy
- Five intelligent resources switchable: Video metadata, face recognition, face detection
- Two 4MP, 1/1.8" CMOS image sensors, one is for collecting black and white information, and the other is for collecting colorful information, and the camera will integrate the collected information
- With multi-spectrum fusion technology, the camera can guarantee the clarity of the image and color rendition in the environment of ultra-low illuminance; and it can provide colorful image with IR LED on
- Outputs max. 4MP (2688 × 1520) @25/30 fps
- H.265 codec, high compression rate, ultra-low bit rate
- Built-in illuminator of dual light fusion, and the max. illumination distance is 150 m
- ROI, SVC, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments
- Alarm: 3 in, 2 out; audio: 2 in, 1 out; RS-485; BNC; supports max. 256 G Micro SD card
- 12V DC power supply; 12V DC power output, and max. current 165mA; easy for installation
- P-Iris

Face Recognition
Dahua Face Recognition technology extracts the features of captured faces and compares them with that in face database to recognize the person identity.

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.

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 camera is equipped with a series of key security technologies, such as security authentication and authorization, access control, trusted protection, encrypted transmission, and encrypted storage, which improve its security defense and data protection, and prevent malicious programs from invading the device. With UL CAP Certification, TÜV Rheinland Protected Privacy IoT Product Certification, and ETSI EN 303645 Certification, Dahua network camera better meets the demands of cyber security and privacy protection.

Technical Specification

Camera

Image Sensor	1/1.8" CMOS
Max. Resolution	2688 (H) × 1520 (V)
ROM	4 GB
RAM	32 GB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.0002 Lux@F1.3
S/N Ratio	>56 dB
Illumination Distance	150 m (492.1 ft)
Illuminator On/Off Control	Auto/Manual/Zoomprio
Illuminator Number	6 (illuminator with dual light fusion)

Lens

Lens Type	Motorized vari-focal
Focal Length	12 mm–72 mm
Max. Aperture	F1.3
Field of View	Horizontal: 26°–7° Vertical: 14°–4° Diagonal: 30°–8°
Iris Control	Auto;P-Iris
Close Focus Distance	3 m (9.8 ft)

	Lens	Detect	Observe	Recognize	Identify
DORI Distance	W	220.6 m (723.8 ft)	88.2 m (289.4 ft)	44.1 m (144.7 ft)	22.0 m (72.2 f)
	T	827.5 m (2714.9 ft)	331 m (1086.0 ft)	165.5 m (543.0 ft)	82.7 m (271.3 ft)

Smart Event

IVS	Abandoned object; missing object

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; optimization; snapshot; report high quality picture; face enhancement; face exposure; face attribute extraction, 6 attributes and 8 expressions: Gender, age, glasses, expressions (anger, calm, happiness, sadness, disgust, surprise, confusion and fear), mouth mask, beard; face matting setting: face, single inch photo; three snapshot modes: Real-time snapshot, optimized snapshot, quality priority; face angle filter; optimization time setting
Face Recognition	Face detection; track; optimization; snapshot; report high quality picture; face enhancement; face exposure; face attribute extraction, 6 attributes and 8 expressions: Gender, age, glasses, expressions (anger, calm, happiness, sadness, disgust, surprise, confusion and fear), mouth mask, beard; face matting setting: face, single inch photo; two snapshot modes: Real-time snapshot and optimized snapshot; face angle filter; optimization time setting; support adding 5 groups of face database, registration and batch registration, similarity setting, and support face comparison with the face database containing up to 300 thousand face pictures
Crowd Distribution Map	Crowd map, global people counting; people counting in area; snapshot for crowd density exception
Video Metadata	Support detection of motor vehicle, non-motor vehicle, face and human body; track, motor vehicle priority; snapshot; report high quality captured picture Motor vehicle attributes (license plate, vehicle color, vehicle type, car logo, license plate color, vehicle Model, visor, seatbelt, smoke, ornament, inspection sticker) Non-motor vehicle attributes (vehicle type, vehicle color, occupancy, top color, top, hat) Human body attributes (gender, top, top color, bottom, bag, umbrella, hat) Face attributes (gender, age, glasses, expressions, mouth mask, beard)
Smart 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+: Yes Smart H.264+: Yes
Video Frame Rate	50Hz: Main stream: 2688 × 1520 @25 fps Sub stream: 704 × 576 @25 fps Third stream: 1920 × 1080 @25 fps 60Hz: Main stream: 2688 × 1520 @30 fps Sub stream: 704 × 480 @30 fps Third stream: 1920 × 1080 @30 fps
Stream Capability	3 streams
Resolution	4M (2688 × 1520); 3M (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: 3 kbps–17664 kbps H.265: 3 kbps–17664 kbps
Day/Night	Yes (Switchable between colorful channel and B/W channel)
BLC	Yes
HLC	Yes
WDR	140 dB

Scene Self-adaptation	Yes
Scene Self-adaptation	Auto/natural/street lamp/outdoor/manual/regional custom
Gain Control	Auto/Manual
Noise Reduction	3D NR
Motion Detection	OFF/ON (4 areas)
Region of Interest (RoI)	Yes (4 areas)
Smart Illumination	Yes
Defog	Yes
Image Rotation	0°/90°/180°/270° (Support 90°/270° with 1080p resolution and lower)
Mirror	Yes
Privacy Masking	4 areas

Audio

Audio Compression	PCM; G.711a; G.711Mu; G726; MPEG2-Layer2; G722.1; G729; 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; input abnormal detection; intensity change detection; tripwire; intrusion; fast moving; abandoned object; missing object; loitering detection; people gathering; parking detection; face recognition; face detection; crowd distribution map; video metadata; external alarm

Network

Network Port	RJ-45 (10/100/1000 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
Cyber Security	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
Interoperability	ONVIF(Profile S/Profile G/Profile T); CGI; Milestone; RTMP; P2P
User/Host	20(Total bandwidth: 133M)
Storage	FTP; SFTP; Micro SD card (support max. 256 G); NAS
Browser	IE: IE9 and later Chrome: 41.0 and later Firefox: 50.0 and later Safari: 10.0 and later
Management Software	Smart PSS; DSS; DMSS
Mobile Client	IOS; Android

Certification

Certification	CE-LVD: EN62368-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15

Port

RS-485	1 (baud rate range: 1,200 bps–115,200 bps)
Audio Input	2 channels (RCA port)
Audio Output	1 channel (RCA port)
Alarm Input	3 channels in: 5mA 3V–5V DC
Alarm Output	2 channels out: 1,000mA 30V DC/500mA 50V DC

Power

Power Supply	12V DC
Power Consumption	Basic power consumption: 8.6W (12V DC) Max. power consumption (illuminator on): 26.6W

Environment

Operating Conditions	–30°C to +60°C (–22°F to +140°F)
Strorage Conditions	≤95%
Protection Grade	IP67

Structure

Casing	Metal + Plastic
Product Dimensions	404.3 mm × 163.8 mm × 211.8 mm (15.9" × 6.4" × 8.3") (L × W × H)
Net Weight	4040 g (8.9 lb)
Gross Weight	4940 g (10.9 lb)

Ordering Information

Type	Model	Description
4MP Camera	DH-IPC-HFS7443P-Z-LI-D2-1272	4MP Polar Light Bullet WizMind Network Camera, PAL
	DH-IPC-HFS7443N-Z-LI-D2-1272	4MP Polar Light Bullet WizMind Network Camera, NTSC
Accessories (optional)	PFA150-SG	Pole Mount
	PFA162-SG	Plane Mount
	PFB605W-SG	Wall Mount

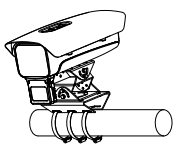
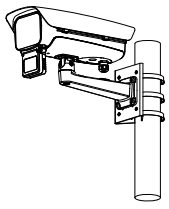
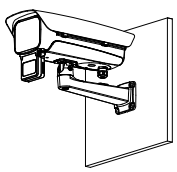
Accessories

Optional:

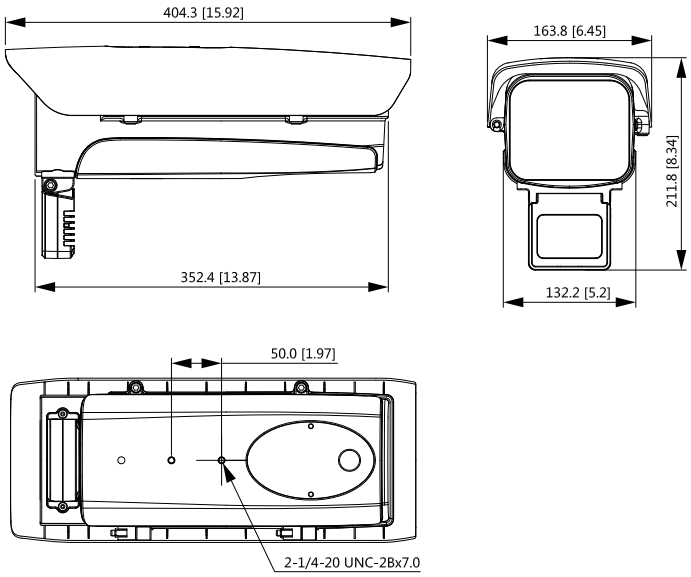
PFA150-SG
Pole Mount

PFA162-SG
Plane Mount

PFB605W-SG
Wall Mount

Pole Mount(Horizontal)	Pole Mount(Vertical)	Wall Mount
		

Dimensions (mm[inch])



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