DH-IPC-HUM8441E-E1-L4

4MP Covert Pinhole WizMind Network Camera-KIT-L4



Launched by Dahua Technology, Dahua WizMind is a full portfolio of solutions composed of project-oriented products including IPC, IVSS,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

Dahua Pinhole series network camera includes one-in-all camera and separated camera. Separated camera can work with different lens to meet the requirements in different installation scenes. Pinhole Series camera is widely applied in hidden or small scenes such as banks and advertising screen.

Functions

AI Coding

Through Dahua AI Coding technology, the camera adopts advanced scene adaptive bit rate control algorithms to improve the efficiency of coding using H.265 and H.264 codecs. It offers the basic bit rate control technologies of constant bitrate (CBR) and variable bitrate (VBR), along with the new average bitrate (ABR). ABR allocates bit rate in each period more reasonably under expected storage conditions, and combines the advantages of CBR's maintenance of bit rate stability over the long term and VBR's prioritization of image quality over the short term.

* The parameters and datasheets below can only be applied to 8441-S3 series.

- 4-MP 1/2.7" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 4 MP (2688 × 1520) @50/60 fps.
- ROI, AI H.264 /H.265, flexible coding, applicable to various bandwidth and storage environments.
- LDC, rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes.
- With deep learning algorithm, it supports: Face detection, IVS, Smart object detection, People counting, Acupick, etc.
- Privacy Protection: Mosaics can be automatically placed over the face or body of a person to protect their privacy.
- Alarm: 2 in, 2 out; audio: 1 in, 1 out; max. 512 G Micro SD card.
- 12 VDC/PoE power supply, easy for installation.
- The Network Camera Main Box connects to the lens through the included 8 m coaxial cable.
- Supports dual power backup.



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.

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.

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.

Technical Specification

Camera

Image Sensor	1/2.7" CMOS
Max. Resolution	2688 (H) × 1520 (V)
ROM	256 MB
RAM	1 GB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.005 lux@F2.0 (Color, 30 IRE) 0.0005 lux@F2.0 (B/W, 30 IRE)
S/N Ratio	>56 dB

Lens

Lens Type	Fixed-focal
Lens Mount	M12
Focal Length	2.8 mm
Max. Aperture	F2.0
Field of View	H: 100°; V: 57°; D: 114°
Iris Control	Fixed
Close Focus Distance	0.8 m (2.62 ft)

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	61.0 m (200.13 ft)	24.4 m (80.05 ft)	12.2 m (40.03 ft)	6.1 m (20.01 ft)

*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 numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and commissioning manual/project design tool.

Intelligence

IVS (Perimeter Protection)	Tripwire, intrusion, fast moving (the three functions support the classification and accurate detection of vehicle and human); loitering detection, people gathering, and parking detection.
Smart Object Detection	Smart abandoned object; smart missing object
AcuPick	Uses deep learning algorithms and works with back-end devices to accurately match targets, such as people, animal and motor vehicles, and search through live and recorded videos to quickly locate targets.
Face Detection	Face detection; snapshot; snapshot optimization; optimal face snapshot upload; face exposure; face attributes extraction including 6 attributes and 8 expressions; 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	Tripwire people counting and people counting in area; generating and exporting report (day/month/year); queue management; 4 rules can be set for tripwire, people counting in area and queue management.
Privacy Protection	Mosaics can be automatically placed over the face or body of a person to protect their privacy
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 sub stream)
AI Coding	AI H.265; AI H.264
Video Frame Rate	Main stream: 2688 × 1520@(1–50/60 fps) sub stream: 1920 × 1080@(1–25/30 fps) third stream: 1920 × 1080@(1–25/30 fps) *High frame rate of main stream is supported under monitoring mode only Note: AI/WDR cannot be enabled at the same time as high frame rate.
Streaming Capability	3 streams
Resolution	4M (2688 × 1520/2560 × 1440); 3M (2048 × 1536); 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	VBR;CBR;ABR
Video Bit Rate	H.264: 3 kbps–16384 kbps; H.265: 3 kbps–16384 kbps
Day/Night	Color/B/W
BLC	Yes
HLC	Yes
WDR	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	OFF/ON (4 areas, rectangular)
Region of Interest (RoI)	Yes (4 areas)
Defog	Yes
Image Rotation	0°/90°/180°/270° (Support 90°/270° with 2688 × 1520 resolution and lower)
Mirror	Yes
Privacy Masking	4 areas
LDC	Yes

Audio

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; missing object; abandoned object; parking detection; loitering detection; people gathering; scene changing; audio detection; voltage detection; external alarm; face detection; people counting; people number error detection; security exception

Network

Network Port	RJ-45 (10/100 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; Bonjour; Auto Registration
Interoperability	ONVIF (Profile S & Profile G & Profile T); CGI; P2P; Milestone; Genetec
User/Host	20 (Total bandwidth: 64 M)
Storage	FTP; SFTP; Micro SD card (Support max. 512 G); NAS
Browser	IE: IE8, IE9, and IE11; Chrome; Firefox
Management Software	Smart PSS; DSS; DMSS; DoLynk Care
Mobile Client	iOS;Android
Security	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;Session security;Security warning

Certification

Certifications	CE-LVD: EN62368-1; CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU;

Port

Audio Input	1 channel (3.5mm JACK port)
Audio Output	1 channel (3.5mm JACK port)
Alarm Input	2 channels in: wet contact, 5 mA 3–5 VDC
Alarm Output	2 channels out: dry contact, 1,000 mA 30 VDC/500 mA 50 VAC

Power

Power Supply	12 VDC; PoE (802.3af)
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: 4.28 W (12 VDC); 6 W (PoE) Max.: 6.7 W (12 VDC); 8.6 W (PoE) (High frame rate + Intelligence on + WDR)

Environment

Operating Temperature	–40 °C to +60 °C (–40 °F to +140 °F)
Operating Humidity	≤95% (RH), non-condensing
Storage Temperature	–40 °C to +60 °C (–40 °F to +140 °F)
Storage Humidity	≤95% (RH), non-condensing

Structure

Casing Material	Metal
Product Dimensions	E1: 110 mm × 83 mm × 24 mm (4.33" × 3.27" × 0.94") L4: 35 mm × 35 mm × 26.7 mm (1.38" × 1.38" × 1.05")
Net Weight	511 g (1.13 lb)
Gross Weight	646 g (1.42 lb)

Ordering Information

Type	Model	Description
IP CAMERA	DH-IPC-HUM8441E-E1-L4	4MP Covert Pinhole WizMind Network Camera-KIT-L4
Accessories (Optional)	DH-PFM321-EN	DC12V1A power adapter
	DH-PFM320D-EN	DC12V2A power adapter
	PFM900-E	Integrated Mount Tester
	DHI-TF-P100/512GB	MicroSD Card

Accessories

Optional:



DH-PFM320D-EN
DC12V2A power adapter



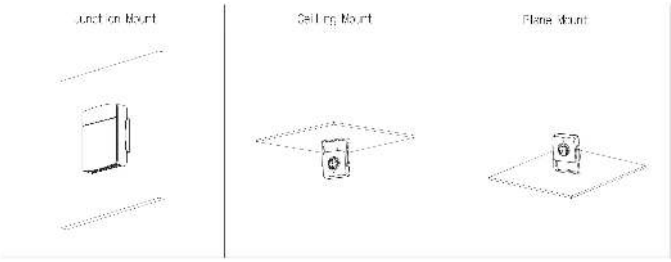
DH-PFM321-EN
DC12V1A power adapter



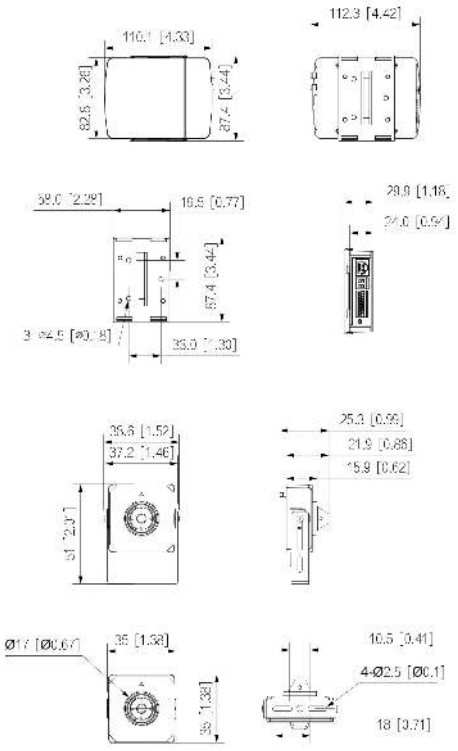
DHI-TF-P100/512GB
MicroSD Card



PFM900-E
Integrated Mount Tester



Dimensions (mm[inch])



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