

DH-IPC-HDPW5442G-ZE

4MP Pro AI IR Vari-focal Dome Network Camera



- 1/1.8" 4Megapixel progressive scan CMOS
- H.265 & H.264 triple-stream encoding
- 25/30 fps@2688 × 1520, 50/60 fps@1080P (1920 × 1080)
- WDR (140 dB), Day/Night (ICR), 3D DNR, AWB, AGC, BLC
- Multiple network monitoring: Web viewer, CMS (DSS/PSS) & DMSS
- 2.7 mm–12.0 mm motorized lens
- 1/1 Alarm in/out, 1/1 audio in/out
- Max. IR LEDs Length 40 m
- Micro SD memory



System Overview

Pro AI series contains Face Detection, Perimeter Protection and People Counting functions. Powered by deep-learning Artificial Intelligence algorithms, significantly improved accuracy. Meanwhile, the series features starlight and smart IR technology.

Functions

Face Detection

Face Detection is a software application that automatically captures faces from within a digital image or a video frame from a video source. Dahua cameras use advanced deep learning algorithms and are trained by a large number of face data sources, enabling the camera to locate faces quickly and accurately from the video source and capture facial images.

Face Attributes

Through the use of deep learning algorithms to analyze facial images, Dahua cameras can extract six facial attributes from each frame, including Age, Gender, Expression (Jolly/Surprise/Normal/Rage/Sad/Disgusted/Confused/Frightened), Glasses, Mouth Mask, Moustache & Beard. Customers can acquire data of interest via face attributes statistics.

Perimeter Protection

Dahua's Perimeter Protection functions significantly improved accuracy. Perimeter Protection reduces false alarms and decreases pixel count requirements for object detection. Perimeter Protection features custom tripwires based on object type for automation in limited access areas such as pedestrian or vehicle-only zones. This combination of advanced AI analytics and real-time alerts to a desktop or to a mobile client reduces system requirements and resources resulting in greater surveillance system efficiency.

People Counting

People Counting function uses advanced image processing technology to capture depth information from within images. The camera pairs this information with deep learning algorithms to analyze and detect human bodies and track target objects in real time. The camera provides statistics for separate individuals' entrance and exit with up to 95% counting accuracy.

Metadata

Metadata is feature attribute information extracted from a target object which can be used for data retrieval. Dahua face detection camera can extract six facial attributes and output the metadata for analysis.

ePoE technology

The ePoE technology of Dahua, designed internally, adopts advanced 2D-PAM3 coding modulation from physical layer, and realizes full duplex transmission over 800 meters at the speed of 10Mbps, or 300 meters at the speed of 100Mbps via Cat 5 or coaxial cable media. Besides, it supports PoE and PoC power supply technology which has greatly simplified construction and wiring. Dahua ePoE technology offer a new way to accomplish long distance transmission between IP camera and network switch. It allows more flexible surveillance system design, improves reliability and saves construction and wiring cost.

Technical Specification							Smart Codec		Yes
Camera							Streaming Capability		3 Streams
Image Sensor		1/1.8” 4Megapixel progressive scan CMOS					Resolution	2688 × 1520/2560 × 1440/2304 × 1296/1080P (1920 × 1080)/1.3M (1280 × 960)/720P (1280 × 720)/D1 (704 × 576/704 × 480)/VGA (640 × 480)/CIF (352 × 288/352 × 240)	
Effective Pixels		2688 (H) × 1520 (V)						Main Stream: 2688 × 1520 (1 fps–25/30 fps) 2560 × 1440 (1 fps–25/30 fps) 1920 × 1080 (1 fps–50/60 fps)	
RAM/ROM		1 GB/128 MB						Sub Stream: D1 (1 fps–25/30 fps) D1 (1 fps–50/60 fps)	
Scanning System		Progressive						Third Stream: 1080P (1 fps–16 fps)	
Electronic Shutter Speed		Auto/Manual, 1/3 s–1/100000 s					Bit Rate Control		CBR/VBR
Minimum Illumination		0.003 Lux@F1.8					Bit Rate		H.264: 32 Kbps–8192 Kbps H.265: 19 Kbps–8192 Kbps
IR Distance		Distance up to 40 m (131 ft)					Day/Night		Auto(ICR)/Color/B/W
IR On/Off Control		Auto/Manual					BLC Mode		BLC/HLC/WDR (140 dB)
IR LEDs		3					White Balance		Auto/Natural/Street Lamp/Outdoor/Manual
Lens							Gain Control		Auto/Manual
Lens Type		Motorized vari-focal					Noise Reduction		3D DNR
Mount Type		Board-in					Motion Detection		Off/On (4 Zone, Rectangle)
Focal Length		2.7 mm–12.0 mm					Region of Interest		Off/On (4 Zone)
Max. Aperture		F1.8					Electronic Image Stabilization (EIS)		Yes
Angle of View		H: 114°–47°, V: 62°–26°					Smart IR		Yes
Aperture Type		Auto					Defog		Yes
Close Focus Distance		1.2 m (3.94 ft)					Flip		0°/90°/180°/270°
	Lens	Detect	Observe	Recognize	Identify	Mirror		Off/On	
	W	58m(190ft)	23m(75ft)	12m(39ft)	6m(20ft)	Privacy Masking		Off/On (4 Area, Rectangle)	
	T	131m(430ft)	52m(171ft)	26m(85ft)	13m(43ft)				
Pan/Tilt/Rotation							Audio		
Pan/Tilt/Rotation Range		Pan: 0°–355°; Tilt: 0°–75°; Rotation: 0°–355°					Compression		G.711a, G.711Mu, G.726, AAC, G.723
Artificial Intelligence							Network		
Face Detection		Support face image capture					Ethernet		RJ-45 (10/100 Base-T)
Face Attributes		Support 6 kinds of face attributes extraction: Age, Gender, Expression(Jolly, Surprise, Normal, Rage, Sad, Disgusted, Confused, Frightened), Glasses,Mouth Mask, Moustache & Beard					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;PPPoE;802.1x;SNMP
Perimeter Protection		Tripwire, intrusion (Recognition of vehicle and people), fast moving, loitering detection, parking detection and people gathering					Interoperability		ONVIF (Profile S/Profile G/Profile T), CGI, Milstone, Genetec, P2P
People Counting		Support Line crossing/Region/Queueing people counting; Support 4 accesses independent detection, 4 areas independent detection					Streaming Method		Unicast/Multicast
General Intelligence							Max. User Access		20 Users
Event Trigger		Motion detection, Video tampering , Scene changing, Network disconnection , IP address conflict, Illegal Access,Storage anomaly					Edge Storage		NAS;FTP;SFTP;Micro SD card 256 GB
General Intelligence		Object Abandoned/Missing					Web Viewer		IE (versions newer than IE8), Chrome, Firefox, Safari (versions newer than Safari 12)
Heat Map		Yes					Management Software		Smart PSS, DSS, DMSS
Video							Smart Phone		iOS, Android
Compression		H.265,H.264,H.264B,H.264H, MJPEG (sub stream)					Certifications		
							Certifications		CE-LVD: EN60950-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B

Interface

Audio Interface	1/1 channel In/Out
RS485	N/A
Alarm	1 channel In: 5mA 5V DC 1 channel Out: 300mA 12V DC

Electrical

Power Supply	DC 12V ($\pm 30\%$), PoE (802.3af) (Class 0)
Power Consumption	<11W

Environmental

Operating Conditions	-30° C to +60° C (-22° F to +140° F)/Less than 95% RH
Storage Conditions	-30° C to +60° C (-22° F to +140° F)

Construction

Casing	plastic
Dimensions	$\Phi 180.5$ mm $\times$ 131.4 mm (7.11" $\times$ 5.17")
Net Weight	0.51 kg (1.12 lb)
Gross Weight	0.73 kg (1.61 lb)

Ordering Information

Type	Part Number	Description
4MP camera	DH-IPC-HDPW5442GP-ZE	4MP Pro AI IR Vari-focal Dome Network Camera, PAL
	DH-IPC-HDPW5442GN-ZE	4MP Pro AI IR Vari-focal Dome Network Camera, NTSC
	IPC-HDPW5442GP-ZE	4MP Pro AI IR Vari-focal Dome Network Camera, PAL
	IPC-HDPW5442GN-ZE	4MP Pro AI IR Vari-focal Dome Network Camera, NTSC
Accessories (optional)	PFA701	Junction Box

Accessories

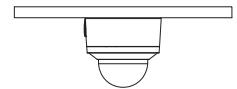
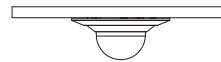
Optional:

PFA701
Junction BoxLR1002
ePoE Over Coax
Converter

In-ceiling Mount

Ceiling Mount

PFA701



Dimensions (mm[inch])

