

# DH-IPC-HDPW5241G-Z

2MP WDR IR Dome AI Network Camera



- 1/2.8" 2Megapixel progressive scan STARVIS™ CMOS
- H.265 & H.264 triple-stream encoding
- 25/30 fps@1080P (1920 × 1080)
- WDR (120 dB), Day/Night (ICR), 3D DNR, AWB, AGC, BLC
- Multiple network monitoring: Web viewer, CMS (DSS/PSS) & DMSS
- 2.7 mm–13.5 mm motorized lens
- 1/1 Alarm in/out, 1/1 audio in/out
- Max. IR LEDs Length 40 m
- Micro SD memory



Dahua AI series products adopt the most advanced AI technologies, including deep learning algorithms that primarily target people and vehicles, which provides higher flexibility and accuracy for end-users. This enables the Dahua AI series to offer various advanced applications such as Face Recognition, ANPR, Metadata, People Counting, traffic data statistics, etc. The complete lineup of Dahua AI includes network (PTZ) cameras, network video recorders, servers, and platform management products. Beyond seeing the world, the power of AI allows devices to perceive the environment and understand the world in a better way.

## System Overview

Pro AI series contains Face Capture, 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 Capture

Face capture 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.

Technical Specification						
Camera						
Image Sensor		1/2.8” 2Megapixel progressive scan STARVIS™ CMOS				
Effective Pixels		1920 (H) × 1080 (V)				
RAM/ROM		512 MB/128 MB				
Scanning System		Progressive				
Electronic Shutter Speed		Auto/Manual, 1/3 s–1/100000 s				
Minimum Illumination		0.002 Lux@F1.5				
IR Distance		Distance up to 40 m (131 ft)				
IR On/Off Control		Auto/Manual				
IR LEDs		3				
Lens						
Lens Type		Motorized				
Mount Type		Board-in				
Focal Length		2.7 mm–13.5 mm				
Max. Aperture		F1.5				
Angle of View		H: 109°–30°, V: 57°–17°				
Optical Zoom		5x				
Aperture Type		Auto				
Close Focus Distance		0.8 m (2.62 ft)				
	Lens	Detect	Observe	Recognize	Identify	
DORI Distance	W	44m(144ft)	18m(59ft)	9m(30ft)	4m(13ft)	
	T	146m(479ft)	58m(190ft)	29m(95ft)	15m(49ft)	
Pan/Tilt/Rotation						
Pan/Tilt/Rotation Range		Pan: 0°–355°; Tilt: 0°–75°; Rotation: 0°–355°				
Artificial Intelligence						
Face Capture		Support face image capture				
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				
Perimeter Protection		Tripwire, Intrusion (Human & Vehicle classification)				
People Counting		Support Line crossing/Region/Queueing people counting; Support 4 accesses independent detection, 4 areas independent detection				
General Intelligence						
Event Trigger		Motion detection, Video tampering , Scene changing, Network disconnection , IP address conflict, Illegal Access, Storage anomaly				
General Intelligence		Object Abandoned/Missing				
Video						
Compression		H.265+, H.265, H.264+, H.264, H.264B, H.264H, MJPEG (sub stream)				
Streaming Capability		3 Streams				

Resolution	1080P (1920 × 1080)/1.3M (1280 × 960)/720P (1280 × 720)/D1 (704 × 576/704 × 480)/VGA (640 × 480)/CIF (352 × 288/352 × 240)
Frame Rate	Main Stream: 1080P (1 fps–25/30 fps)
	Sub Stream: D1 (1 fps–25/30 fps)
	Third Stream: 1080P (1 fps–6 fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 32 Kbps–8192 Kbps H.265: 19 Kbps–7424 Kbps
Day/Night	Auto(ICR)/Color/B/W
BLC Mode	BLC/HLC/WDR (120 dB)
White Balance	Auto/Natural/Street Lamp/Outdoor/Manual
Gain Control	Auto/Manual
Noise Reduction	3D DNR
Motion Detetion	Off/On (4 Zone, Rectangle)
Region of Interest	Off/On (4 Zone)
Electronic Image Stabilization (EIS)	Support
Smart IR	Support
Defog	Support
Digital Zoom	N/A
Flip	0°/90°/180°/270°
Mirror	Off/On
Privacy Masking	Off/On (4 Area, Rectangle)
Audio	
Compression	G.711a, G.711Mu, G.726, AAC, G.723
Network	
Ethernet	RJ-45 (10/100 Base-T)
Protocol	HTTP, TCP, ARP, RTSP, RTP, UDP, RTCP, SMTP, FTP, DHCP, DNS, DDNS, PPPoE, IPv4/v6, SNMP, QoS, UPnP, NTP, ICMP, HTTPS, IGMP, 802.1x
Interoperability	ONVIF (Profile S/Profile G), CGI, Milstone, Genetec, P2P
Streaming Method	Unicast/Multicast
Max. User Access	20 Users
Edge Storage	NAS FTP Micro SD card 256 GB
Web Viewer	IE (versions newer than IE8), Chrome, Firefox, Safari (versions newer than Safari 12)
Management Software	Smart PSS, DSS, P2P
Smart Phone	iOS, Android
Certifications	
Certifications	CE-LVD: EN60950-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B

## Interface

Video Interface	N/A
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	<10.6W

## Environmental

Operating Conditions	-30° C to +60° C (-22° F to +140° F)/10%RH–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
2MP camera	DH-IPC-HDPW5241GP-Z	2MP WDR IR Dome AI Network Camera, PAL
	DH-IPC-HDPW5241GN-Z	2MP WDR IR Dome AI Network Camera, NTSC
	IPC-HDPW5241GP-Z	2MP WDR IR Dome AI Network Camera, PAL
	IPC-HDPW5241GN-Z	2MP WDR IR Dome AI Network Camera, NTSC
Accessories (optional)	PFA701	Junction Box

## Accessories

## Optional:

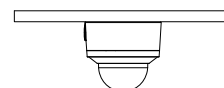


PFA701  
Junction Box

## In-ceiling Mount

## Ceiling Mount

PFA701



## Dimensions (mm[inch])

