

DH-IPC-HDW5541H-AS-PV

5MP WDR IR Eyeball AI Network Camera



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. This series fully protected from dust and water, certified to IP67 standard.

Functions

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.

- 1/2.7" 5Megapixel progressive scan CMOS
- H.265 & H.264 triple-stream encoding
- 20 fps@2592 × 1944, 50/60 fps@1080P (1920 × 1080)
- WDR (120 dB), Day/Night (ICR), 3D DNR, AWB, AGC, BLC
- Multiple network monitoring: Web viewer, CMS (DSS/PSS) & DMSS
- 2.8 mm fixed lens (3.6 mm, 6.0 mm optional)
- 1/1 Alarm in/out, 1/1 audio in/out (Built-in MIC, Built-in Speaker)
- Max. IR LEDs Length 50 m
- Micro SD memory, IP67



Active Deterrence

Active deterrence is to warn off intruders actively with white light and siren even before users are aware of the incidence. Once an intrusion is detected, the white light will turn on and the siren will buzz to alert the intruder. The white light can be set to Normally on or Flash, the content of siren is configurable.

Protection(IP67, wide voltage)

The camera allows for $\pm 30\%$ input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 6KV lightning rating provides effective protection for both the camera and its structure against lightning. Subjected and certified to rigorous dust and immersion tests (IP67), the camera is the choice for installation in even the most unforgiving environments.

Technical Specification						
Camera						
Image Sensor		1/2.7" 5Megapixel progressive scan CMOS				
Effective Pixels		2592 (H) × 1944 (V)				
RAM/ROM		512 MB/128 MB				
Scanning System		Progressive				
Electronic Shutter Speed		Auto/Manual, 1/3 s–1/100000 s				
Minimum Illumination		0.005 Lux@F1.6				
IR Distance		Distance up to 50 m (164ft)				
IR On/Off Control		Auto/Manual				
IR LEDs		1 IR, 1 LED				
Lens						
Lens Type		Fixed-focal				
Mount Type		Board-in				
Focal Length		2.8 mm, 3.6 mm, 6.0 mm				
Max. Aperture		F1.6				
Angle of View		H: 102°, V: 71°/H: 84°, V: 58°/H: 51°, V: 37°				
Aperture Type		Fixed				
Close Focus Distance		0.9 m (2.95 ft)/1.6 m (5.25 ft)/3.1 m (10.17 ft)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify	
	2.8mm	56m(184ft)	22m(72ft)	11m(36ft)	6m(20ft)	
	3.6mm	80m(262ft)	32m(105ft)	16m(52ft)	8m(26ft)	
	6.0mm	120m(394ft)	48m(157ft)	24m(79ft)	12m(39ft)	
Pan/Tilt/Rotation						
Pan/Tilt/Rotation Range		Pan: 0°–360°; Tilt: 0°–78°; Rotation: 0°–360°				
Artificial Intelligence						
Perimeter Protection		Tripwire, intrusion (Recognition of vehicle and people), fast moving, loitering detection, parking detection and people gathering				
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				
Heat Map		Yes				
Video						
Compression		H.265,H.264,H.264B,H.264H, MJPEG (sub stream)				
Smart Codec		Yes				

Streaming Capability		3 Streams	
Resolution		2592 × 1944/2688 × 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)	
Frame Rate		Main Stream: 2592 × 1944 (1 fps–20 fps) 2560 × 1440 (1 fps–25/30 fps) 1920 × 1080 (1 fps–50/60 fps)	
		Sub Stream: D1 (1 fps–20/30 fps) D1 (1 fps–50 fps)	
		Third Stream: 1080P (1 fps–17 fps)	
Bit Rate Control		CBR/VBR	
Bit Rate		H.264: 32 Kbps–8192 Kbps H.265: 19 Kbps–8192 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 Detection		Off/On (4 Zone, Rectangle)	
Region of Interest		Off/On (4 Zone)	
Electronic Image Stabilization (EIS)		N/A	
Smart IR		Yes	
Defog		Yes	
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		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	
Interoperability		ONVIF (Profile S/Profile G/Profile T), CGI, Milstone, Genetec, P2P	
Streaming Method		Unicast/Multicast	
Max. User Access		20 Users	
Edge Storage		NAS;FTP;SFTP 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, DMSS	
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
 UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07

Interface

Audio Interface	1/1 channel In/Out, Built-in MIC, Built-in Speaker
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	<7.2W

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)
Ingress Protection	IP67

Construction

Casing	Metal, plastic
Dimensions	$\Phi 122$ mm $\times$ 113.5 mm (4.80" $\times$ 4.47")
Net Weight	0.49 kg (1.08 lb)
Gross Weight	0.65 kg (1.43 lb)

Ordering Information

Type	Part Number	Description
5MP camera	DH-IPC-HDW5541HP-AS-PV	5MP WDR IR Eyeball AI Network Camera, WDR, PAL
	DH-IPC-HDW5541HN-AS-PV	5MP WDR IR Eyeball AI Network Camera, WDR, NTSC
	IPC-HDW5541HP-AS-PV	5MP WDR IR Eyeball AI Network Camera, WDR, PAL
	IPC-HDW5541HN-AS-PV	5MP WDR IR Eyeball AI Network Camera, WDR, NTSC
Accessories (optional)	PFA130-E	Junction box
	PFA151	Corner Mount
	PFB203W	Wall Mount
	PFA106	Mount Adapter
	PFB220C	Ceiling Mount
	PFA152-E	Pole Mount

Accessories

Optional:



PFA130-E
Junction box



PFA151
Corner Mount



PFB203W
Wall Mount



PFA106
Mount Adapter



PFB220C
Ceiling Mount



PFA152-E
Pole Mount

Junction Mount	Corner Mount
PFA130-E	PFA151+PFB203W
Wall Mount	Ceiling Mount
PFB203W	PFA106+PFB220C
Ceiling Mount	Pole Mount
	PFB203W + PFA152-E

Dimensions (mm[inch])

