

DH-IPC-HDW4431EM-ASE

4MP IR Eyeball Network Camera





System Overview

With upgraded H.265 encoding technology, Eco-savvy series brings high efficient video compression capability. It can save bandwidth and storage. Meanwhile, the series features starlight, smart IR technology and intelligent image analysis techniques. This series supports reminder function, meanwhile fully protected from dust and water, certified to IP67 and vandal resistant to IK10 standard.

Functions

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.

Wide Dynamic Range(WDR)

The camera achieves vivid images, even in the most intense contrast lighting conditions, using industry-leading wide dynamic range (WDR) technology. For applications with both bright and low lighting conditions that change quickly, true WDR (120 dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

Intelligent Video System (IVS)

IVS is a built-in video analytic algorithm that delivers intelligent functions to monitor a scene for Tripwire violations, intrusion detection, and abandoned or missing objects. A camera with IVS quickly and accurately responds to monitoring events in a specific area. In addition to scene analytics, the camera supports face detection to quickly capture a face and upload the image to a server. The camera also offers tamper detection by recognizing a dramatic scene change and generating a

- · 1/3" 4Megapixel progressive scan CMOS
- · H.265&H.264 triple-stream encoding
- · 25/30fps@4M(2688×1520)
- · Smart Detection supported
- · WDR(120dB), Day/Night(ICR), 3DNR, AWB, AGC, BLC
- · Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
- · 2.8mm fixed lens (3.6mm,6mm optional)
- · Built-in Mic
- · Max. IR LEDs Length 50m
- · Micro SD memory, IP67, PoE











warning message to inspect the camera.

Environmental

Dahua cameras operate in extreme temperature environments, rated for use in temperatures from-30 $^{\circ}$ C to +60 $^{\circ}$ C (-22 $^{\circ}$ F to +140 $^{\circ}$ F) with 95 $^{\circ}$ humidity, allowing the camera to operate in the harshest environments.

Protection(IP67, wide voltage)

The camera allows for ±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.

Smart H.265+

Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.



BLC Mode

BLC / HLC / WDR(120dB)

Technical Specification							White Balance	Auto/Natural/Street Lamp/Outdoor/Manual
Camera						Gain Control	Auto/Manual	
Image Sensor		1/3" 4Megapixel progressive scan CMOS					Noise Reduction	3D DNR
Effective Pixels		2688(H)x1520(V)					Motion Detetion	Off / On (4 Zone, Rectangle)
RAM/ROM		512MB/32MB					Region of Interest	Off / On (4 Zone)
Scanning System		Progressive					Electronic Image Stabilization	N/A
Electronic Shutter Speed		Auto/Manual, 1/3(4)~1/100000s					(EIS)	
		0.06Lux/F1.6(Color,1/3s,30IRE)					Smart IR	Support
Minimum Illumination		0.4Lux/F1.6(Color,1/30s,30IRE) 0Lux/F1.6(IR on)					Defog	N/A
S/N Ratio		More than 50dB					Digital Zoom	16x
IR Distance		Distance up to 50m (164ft)					Flip	0°/90°/180°/270°
IR On/Off Control		Auto/ Manual					Mirror	Off / On
IR LEDs		1					Privacy Masking	Off / On (4 Area, Rectangle)
Lens							-	on (47/10), nectangles
Lens Type		Fixed					Audio	
Mount Type		Board-in					Compression	G.711a/ G.711Mu/ AAC/ G.726
Focal Length		2.8mm (3.6mm, 6mm optional)					Network	
Max. Aperture		F1.6 (F1.6, F1.6)					Ethernet	RJ-45 (10/100Base-T)
Angle of View		H:104° (83°, 55°), V:58° (45°, 31°)						HTTP; HTTPs; TCP; ARP; RTSP; RTP; UDP; SMTP; FTP; DHCP; DNS; DDNS; PPPOE; IPv4/v6; QoS; UPnP;NTP; Bonjour; 802.1x; Multicast; ICMP; IGMP; SNMP
Optical Zoom		N/A	N/A				Protocol	
Focus Control		Fixed						
Close Focus Dis		1.1m (1.5m, 3.1m)					Interoperability	ONVIF, PSIA, CGI
	Lens	Detect	Observe	Recognize	Identify		Streaming Method	Unicast / Multicast
DORI Distance	2.8 mm 3.6 mm	56m(184ft) 80m(262ft)	22m(72ft) 32m(105ft)	11m(36ft) 16m(52ft)	6m(20ft) 8m(26ft)		Max. User Access	10 Users / 20 Users
	6.0 mm	. ,	. ,		12m(39ft)		Wall ose resess	
Pan/Tilt/Rotation		120m(394ft) 48m(157ft) 24m(79ft) 12m(39ft)				Edge Storage	NAS Local PC for instant recording Mirco SD card 128GB	
Pan/Tilt/Rotation Range		Pan:0°~360°; Tilt:0°~78°; Rotation:0°~360°					Web Viewer	IE, Chrome, Firefox, Safari
Intelligence							Management Software	Smart PSS, DSS, Easy4ip
IVS		Tripwire, Intrusion, Object Abandoned/Missing					Smart Phone	IOS, Android
Advanced Intel	ligent Functions	Face Detection					Certifications	100,000
Video							Certifications	CE /EN CO0E0,2000)
Compression		H.265+/H.265/H.264+/H.264					Certifications	CE (EN 60950:2000) UL:UL60950-1 ECC: ECC Part 15 Subport P
Streaming Capability		3 Streams					Interface	FCC: FCC Part 15 Subpart B
Resolution		4M(2688×1520)/3M(2304×1296)/ 1080P(1920×1080)/1.3M(1280×960)/ 720P(1280×720)/D1(704×576/704×480)/					Interface	
							Video Interface	N/A
Frame Rate		VGA(640×480)/CIF(352×288/352×240)					Audio Interface	Built-in Mic
		Main Stream: 4M(1~25/30fps)					RS485	N/A
		Sub Stream: D1(1~25/30fps)					Alarm	N/A
		Third Stream: 720P(1~25/10fps)					Electrical	
Bit Rate Control		CBR/VBR					Power Supply	DC12V, PoE (802.3af)(Class 0)
Bit Rate		H.264: 24K ~ 10240Kbps H.265: 14K ~ 9984Kbps						
Day/Night		Auto(ICR) / Color / B/W					Power Consumption <5.5W	NO.578V
PLC Mode		BLC / HLC / WDB/120dB)						

Environmental

Operating Conditions	-30° C $^{\sim}$ +60° C (-22° F $^{\sim}$ +140° F) / Less than 95% RH
Strorage Conditions	-30° C ~ +60° C (-22° F ~ +140° F) / Less than 95% RH
Ingress Protection	IP67
Vandal Resistance	N/A

Construction

Casing	Metal
Dimensions	Ф106mm×93.7mm (4.17"×3.69")
Net Weight	0.47Kg (1.04lb)
Gross Weight	0.65Kg (1.43lb)

Ordering In	formation			
Туре	Part Number	Description		
	DH-IPC- HDW4431EMP-ASE- 0360B	4MP IR Eyeball Network Camera, PAL		
	DH-IPC- HDW4431EMN-ASE- 0360B	4MP IR Eyeball Network Camera, NTSC		
	IPC-HDW4431EMP- ASE-0360B	4MP IR Eyeball Network Camera, PAL		
	IPC-HDW4431EMN- ASE-0360B	4MP IR Eyeball Network Camera, NTSC		
	DH-IPC- HDW4431EMP-ASE- 0280B	4MP IR Eyeball Network Camera, PAL		
	DH-IPC- HDW4431EMN-ASE- 0280B	4MP IR Eyeball Network Camera, NTSC		
4MP camera	IPC-HDW4431EMP- ASE-0280B	4MP IR Eyeball Network Camera, PAL		
	IPC-HDW4431EMN- ASE-0280B	4MP IR Eyeball Network Camera, NTSC		
	DH-IPC- HDW4431EMP-ASE- 0600B	4MP IR Eyeball Network Camera, PAL		
	DH-IPC- HDW4431EMN-ASE- 0600B	4MP IR Eyeball Network Camera, NTSC		
	IPC-HDW4431EMP- ASE-0600B	4MP IR Eyeball Network Camera, PAL		
	IPC-HDW4431EMN- ASE-0600B	4MP IR Eyeball Network Camera, NTSC		
	PFB204W	Wall mount		
Accessories	PFA130-E	Junction box		
(optional)	PFA152-E	Pole Mount		
	LR1002	ePoE Over Coax Converter		

Accessories

Optional:









PFA130-E Junction Box

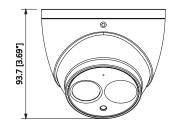
PFB204W Wall Mount

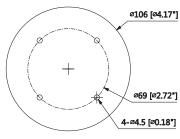
PFA152-E Pole Mount

LR1002 ePoE Over Coax Converter

Junction Mount	Pole Mount
PFA130-E	PFB204W + PFA152-E
Wall Mount	
PFB204W	

Dimensions (mm/inch)





Rev 001.001© 2017 Dahua. All rights reserved. Design and specifications are subject to change without notice.

