ahua TECHNOLOGY

DH-IPC-HDBW8241E-Z

2MP IR AI Dome Network Camera

· 1/2.8" 2Megapixel progressive scan CMOS
· H.265&H.264 triple-stream encoding
· 50/60fps@1080P(1920×1080)
· WDR(140dB), Day/Night(ICR), 3DNR,AWB,AGC,BLC
· Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
· 2.7mm ~13.5mm motorized lens
· Micro SD memory, PoE+
· Max. IR LEDs Length 50m

| 2Mp | H. 265+ | Perimeter | People Counting | WDR |

By adopting the latest technology, Dahua Cameras can provide an amazing dynamic range up to140dB.

Smart Codec (H.265+ & H.264+)

Smart Codec is the optimized implementation of standard video compression (H.265 & H.264) 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 Codec technology reduces bit rate and storage requirements by up to 70% when compared to the standard video compression.

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 series 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

Powered by deep-learning Artificial Intelligence algorithms, Dahua's Perimeter Protection and People counting 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 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

Functions

Starlight Technology

Featuring Dahua's Starlight Technology, this camera is ideal for applications with challenging lighting conditions. Its low-light performance delivers usable video with minimal ambient light. Even in extreme low-light conditions, Starlight Technology is capable of delivering color images in near complete darkness .

Ultra WDR

Standard WDR/HDR camera can provide 120dB dynamic range,However, for some scenes with wider contrast range, 120dB is slightly insufficient.

Onvif

Technical Specification

Camera

Image Sensor	1/2.8" 2Megapixel progressive scan CMOS
Effective Pixels	1920(H)x1080(V)
RAM/ROM	1024MB/4096MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual, 1/3~1/100000s
Minimum Illumination	0.006Lux/F1.6 (Color,1/3s,30IRE) 0.05Lux/F1.6(Color,1/30s,30IRE) 0Lux/F1.6(IR on)
S/N Ratio	Less than 50dB
IR Distance	Distance up to 50m(164ft)
IR On/Off Control	Auto/Manual
IR LEDs	3

Lens

Lens Type	Motorized
Mount Type	Board-in
Focal Length	2.7~13.5mm motorized
Max. Aperture	F1.6
Angle of View	H: 107.17° ~ 31.82°, V: 56.47° ~ 17.62°
Optical Zoom	5x
Focus Control	Motorized
Close Focus Distance	0.3m(0.98ft)

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	W	44m(144ft)	18m(59ft)	9m(29ft)	4m(13ft)
	T	153m(502ft)	61m(200ft)	31m(102ft)	15m(49ft)

Pan/Tilt/Rotation

Pan/Tilt/Rotation Range	Pan:0°~355°; Tilt:0°~65°; Rotation:0°~355°

Artificial Intelligence

People Counting	Line crossing people counting, Region people counting, Loitering filter
Perimeter Protection	Tripwire, Intrusion(Human&Vehicle classification)

General Intelligence

Event Trigger	Motion detection, Video tampering , Scene changing, Network disconnection , IP address conflict, Illegal Access,Storage anomaly
General Intelligence	N/A

Video

Compression	H.265/H.264/H.264B/H.264H/MJPEG(sub stream)
Smart Codec	Support H.265+/H.264+
Streaming Capability	3 Streams
Resolution	1080P(1920×1080)/ 1.3M(1280x960)/ 720P(1280x720)/ D1(704×576/704x480)/ VGA(640x480)

Frame Rate	Main Stream: 1080P(1~50/60fps)
	Sub Stream: D1 (1 ~ 50/60fps)
	Third Stream: 1080P(1~19/29fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 24~ 10240Kbps H.265: 14~ 6144Kbps
Day/Night	Auto(ICR) / Color / B/W
BLC Mode	BLC / HLC / WDR(140dB)/ SSA
White Balance	Auto/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)	Support
Smart IR	Support
Defog	Support
Digital Zoom	16x
Flip	0°/90°/180°/270°
Mirror	Off / On
Privacy Masking	Off / On (4 Area, Rectangle)

Audio

Compression	G.711a/ G.711Mu/ AAC/ G.726

Network

Ethernet	RJ-45 (100/1000Base-T)
Protocol	HTTP;HTTPs;TCP;ARP;RTSP;RTP;UDP;RTCP;SMTP; FTP;DHCP;DNS;DDNS;PPPOE;IPv4/v6;QoS;UPnP; NTP;Bonjour;IEEE 802.1x;Multicast;ICMP;IGMP;S NMP;TLS
Interoperability	ONVIF Profile S&G, API
Streaming Method	Unicast / Multicast
Max. User Access	10 Users/20 Users
Edge Storage	NAS Local PC for instant recording Micro SD card 128GB
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	Smart PSS, DSS, DMSS
Smart Phone	IOS, Android

Certifications

Certifications	CE (EN 60950:2000) UL:UL60950-1 FCC: FCC Part 15 Subpart B

Interface

Video Interface	1 Port(For adjustment only)
Audio Interface	1/1 channel In/Out
RS485	1 port
Alarm	1 channel In: 5mA 5VDC 1 channel Out: 1A 30VDC / 0.5A 50VAC

Electrical

Power Supply	DC12V, AC24V, PoE(802.3at)(Class 4)
Power Consumption	DC12V:5.8W 16.4W(IR on) PoE:5.3W 14.7W(IR on)

Environmental

Operating Conditions	-30° C ~ +60° C (-22° F ~ +140° F) / Less than 95% RH
Storage Conditions	-30° C ~ +60° C (-22° F ~ +140° F) / Less than 95% RH
Ingress Protection	IP67
Vandal Resistance	IK10

Construction

Casing	Metal
Dimensions	Φ159.1mm*117.9mm
Net Weight	1.06Kg (2.34lb)
Gross Weight	1.28Kg (2.82lb)

Ordering Information

Type	Part Number	Description
2MP camera	DH-IPC-HDBW8241EP-Z-27135	2MP IR AI Dome Network Camera
	IPC-HDBW8241EP-Z-27135	2MP IR AI Dome Network Camera
Accessories (included)	PFA138	Junction Box
Accessories (optional)	PFB210W	Wall mount
	PFB201C	In-ceiling mount
	PFB300C	Ceiling mount
	PFA152-E	Pole mount
	PFA101	Mount adapter

Accessories

Optional:

PFA138
Junction box

PFB210W
Wall mount

PFA152-E
Pole mount

PFA101
Mount adapter

PFB300C
Ceiling mount

PFB201C
In-ceiling mount

In-ceiling Mount	Junction Mount	Pole Mount
PFB201C	PFA138	PFB210W+PFA152-E
Ceiling Mount	**Wall Mount**	
PFA101+PFB300C	PFB210W (Indoor)	PFB210W (Outdoor)

Dimensions (mm/inch)

159.1 [6.26"]
117.9 [4.64"]
∅159.1 [∅6.26"]
∅140.0 [∅5.51"]
3-∅4.7 [∅0.19"]