

# DH-IPC-HFW3241E-Z

## 2MP IR Starlight Bullet Network Camera



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

Powered by deep-learning Artificial Intelligence algorithms, Dahua's DeepIVS significantly reduces false alarms and decreases pixel count requirements for object detection. DeepIVS 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.

### 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.

#### Wide dynamic range (WDR)

Embedded with industry leading wide dynamic range (WDR) technology, vivid pictures are achieved even in the most intense contrast lighting conditions. For applications with both bright and low lighting conditions that change quickly, True WDR (120dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

#### 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

- 1/2.8" 2Megapixel progressive scan CMOS
- H.265&H.264 triple-stream encoding
- 25/30fps@1080P(1920×1080)
- WDR(120dB), Day/Night(ICR), 3DNR,AWB,AGC,BLC
- Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
- 2.7mm ~13.5mm motorized lens
- Max. IR LEDs Length 50m
- Micro SD memory, PoE+



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.

### Technical Specification

#### Camera

Image Sensor	1/2.8 2Megapixel progressive scan CMOS
Effective Pixels	1920(H)x1080(V)
RAM/ROM	1024MB/128MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual, 1/3~1/100000s
Minimum Illumination	0.005Lux/F1.4 ( Color,1/3s,30IRE) 0.05Lux/F1.4 ( Color,1/30s,30IRE) 0Lux/F1.4(IR on)
S/N Ratio	More than 50dB
IR Distance	Distance up to 50m(164ft)
IR On/Off Control	Auto/Manual
IR LEDs	4

#### Lens

Lens Type	Motorized				
Mount Type	Board-in				
Focal Length	2.7mm~13.5mm				
Max. Aperture	F1.4				
Angle of View	H: 110° ~31° , V: 57°~17.7°				
Optical Zoom	5x				
Focus Control	Motorized				
Close Focus Distance	0.3m(0.98ft)				
DORI Distance	Lens	Detece	Observe	Recognize	Identify
	W	44m(144ft)	18m(59ft)	9m(29ft)	4m(13ft)
	T	143m(469ft)	57m(187ft)	29m(95ft)	14m(46ft)

#### Pan/Tilt/Rotation

Pan/Tilt/Rotation Range	Pan:0°~360°; Tilt:0°~90°; Rotation:0°~360°
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#### Artificial Intelligence

Deep IVS	Tripwire, Intrusion(Human&Vehicle classification)
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#### 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(1920x1080)/ 1.3M(1280x960)/ 720P(1280x720)/ D1(704x576/704x480)/ CIF(352x288/352x240)
Frame Rate	Main Stream: 1080P(1~25/30fps)
	Sub Stream: D1 (1 ~ 25/30fps)
	Third Stream: 1080P(1~25/30fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264H:32Kbps ~ 8192Kbps H.265:16Kbps~ 6144Kbps

Day/Night	Auto(ICR) / Color / B/W
BLC Mode	BLC / HLC / WDR(120dB)
White Balance	Auto/Natural/Street Lamp/Outdoor/Manual
Gain Control	Auto
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	Support
Defog	N/A
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
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#### Network

Ethernet	RJ-45 (10/100/1000Base-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	10Users/20 Users
Edge Storage	NAS Local PC for instant recording Mirco 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
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Interface

Video Interface	1 Port(For adjustment only)
Audio Interface	1/1 channel In/Out
RS485	N/A
Alarm	2 channel In: 5mA 5VDC 1 channel Out: 300mA 12VDC

Electrical

Power Supply	DC12V, PoE(802.3at)(Class 4)
Power Consumption	DC 12V: 4.48W 14.5W(IR on) PoE: 7.28W 19.6W(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	273.2mm×95.0mm×96.4mm (10.76"×3.74"×3.79")
Net Weight	1.12Kg (2.47lb)
Gross Weight	1.52Kg (3.35lb)

Ordering Information

Type	Part Number	Description
2MP camera	DH-IPC-HFW3241EP-Z-27135	2MP IR Starlight Bullet Network Camera, PAL
	DH-IPC-HFW3241EN-Z-27135	2MP IR Starlight Bullet Network Camera, NTSC
	IPC-HFW3241EP-Z-27135	2MP IR Starlight Bullet Network Camera, PAL
	IPC-HFW3241EN-Z-27135	2MP IR Starlight Bullet Network Camera, NTSC
Accessories (optional)	PFA121	Junction box
	PFA152-E	Pole Mount

Accessories

Optional:



PFA121  
Junction box



PFA152-E  
Pole mount

