

# DH-IPC-HFW5231E-Z5E

2MP WDR IR Bullet Network Camera

www.PadVokam.by





#### **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.

# Starlight Technology

For challenging low-light applications, Dahua's Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing color details in low light down to 0.006lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

# Wide Dynamic Range

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.

- · 1/2.8" 2Megapixel progressive scan STARVIS™ CMOS
- · H.265&H.264 triple-stream encoding
- ·50/60fps@1080(1920×1080)
- · Smart Detection supported
- · WDR(120dB), Day/Night(ICR), 3DNR, AWB, AGC, BLC
- · Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
- · 7mm ~35mm 5X zoom lens
- · 2/1 Alarm in/out, 1/1 audio in/out
- · Max. IR LEDs Length 100m
- · Micro SD memory, IP67, IK10, PoE















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 warning message to inspect the camera.

#### Protection(IP67, IK10, 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) and impact tests (IK10), 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.



Technical Sp	ecification				
Camera					
Image Sensor		1/2.8" 2Megapixel progressive scan CMOS			
Effective Pixels		1920(H) x 1080(V)			
RAM/ROM		256MB/32MB			
Scanning System		Progressive			
Electronic Shutter Speed		Auto/Manual, 1/3~1/100000s			
Minimum Illumination		0.006Lux/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 100m (328ft)			
IR On/Off Control		Auto/ Manual			
IR LEDs		4			
Lens					
Lens Type		Motorized/ Auto Iris(HALL)			
Mount Type		Board-in			
Focal Length		7mm~35mm			
Max. Aperture		F1.4			
Angle of View		H: 35°~12°, V:19°~7°			
Optical Zoom		5x			
Focus Control		Motorized			
Close Focus Dist	tance	0.3m			
2001	Lens	Detect	Observe	Recognize	Identify
DORI Distance	W	131m(429ft)	52m(170ft)	26m(85ft)	13m(42ft)
T		427m(1400ft)	171m(561ft)	85m(278ft)	42m(138ft)
Pan/Tilt/Rot		D. O'2CO' T	'll 0°00° D .	0*-250*	
Pan/Tilt/Rotation	ni Kalige	Pan:0°~360°; T	iit:0 <sup>-3</sup> 90 ; Rota	ition:0 ~360°	
Intelligence					
IVS	inant Francis	Tripwire, Intrusion, Object Abandoned/Missing			
	igent Functions	Face Detection			
Video		11.205 /11.205	h. 204 . // 2		
Compression	1.00	H.265+/H.265/H.264+/H.264			
Streaming Capa	bility	3 Streams			
Resolution		1080P(1920x1080)/1.3M(1280x960)/ 720P(1280×720)/D1(704×576/704×480)/ VGA(640×480)/CIF(352×288/352×240)			
Frame Rate		Main Stream: 1080P(1~50/60fps)			
		Sub Stream: D1(1~50/60fps)			
		Third Stream: 1080P(1~25/30fps)			
Bit Rate Control		CBR/VBR			
Bit Rate		H.264: 24~947	2Kbps		

Day/Night	Auto(ICR) / Color / B/W			
BLC Mode	BLC / HLC / WDR(120dB)			
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)	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			
Network				
Ethernet	RJ-45 (10/100Base-T)			
Protocol	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			
Interoperability	ONVIF, PSIA, CGI			
Streaming Method	Unicast / Multicast			
Max. User Access	10 Users /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, Easy4ip			
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	N/A			
Alarm	2 channel In: 5mA 5VDC 1 channel Out: 300mA 12VDC			
Electrical				
Power Supply	DC12V, PoE (802.3af)(Class 0)			
Power Consumption	<12.95W			

## 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	IK10

## Construction

Casing	Metal
Dimensions	273.2mm×95.0mm×95.0mm (10.76"×3.74"×3.74")
Net Weight	1.11Kg (2.44lb)
Gross Weight	1.51Kg (3.33lb)

Ordering Information				
Туре	Part Number	Description		
2MP camera	DH-IPC- HFW5231EP-Z5E	2MP IR Bullet Network Camera,WDR,PAL		
	DH-IPC- HFW5231EN-Z5E	2MP IR Bullet Network Camera,WDR,NTSC		
	IPC-HFW5231EP- Z5E	2MP IR Bullet Network Camera,WDR,PAL		
	IPC-HFW5231EN- Z5E	2MP IR Bullet Network Camera,WDR,NTSC		
Accessories (optional)	PFA121	Junction box		
	PFA152-E	Pole Mount		
	LR1002	ePoE Over Coax Converter		

# Accessories

# Optional:







PFA121 Junction box

PFA152-E Pole Mount

LR1002 ePoE Over Coax Converter

Junction Mount	Pole Mount
PFA121	PFB121 + PFA152



