DH-IPC-HFW1831E

8MP WDR IR Mini Bullet Network Camera

- 1/2” 8Megapixel progressive scan CMOS
- H. 265&H.264 dual-stream encoding
- 25/30fps@8MP(3840×2160)
- WDR(120dB), Day/Night(ICR), 3DNR, AWB, AGC, BLC
- Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
- 2.8mm fixed lens (4mm, 6mm optional)
- Max. IR LEDs Length 50m
- IP67, PoE

System Overview

The IR Megapixel Fixed camera delivers 8MP resolution with a motorized 2.8/4.0/6.0mm fixed lens.The camera's elegant blend of aesthetics combined with a range of easy mounting solutions provides an excellent choice for a variety of small to mid-size applications at an affordable price.

Functions

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.

4K Technology

4K technology as a revolutionary breakthrough in image, which enhance the expressive image of essence, allowing users to experience the best picture quality brought about by the visual feast . For the purposes of 4K surveillance with four times the 1080P resolution, presented to the user with more details . Under the same scenario by raising the pixels , reduce the camera cost.

Intelligent Video Analysis (IVS)

Dahua camera is equipped with a built-in intelligent analytic algorithm based on video, which can realize intelligent functions like Tripwire and Intrusion, to quickly and accurately respond to monitoring events in specific area, It can enhance monitoring efficiency. In addition, the camera supports intelligent tamper detection, which is to generate warning message via detecting dramatic scene change and to guarantee effective video surveillance.

Wide Dynamic Range (WDR)

Embeded with industry leading wide dynamic range (WDR) technology, vivid picutures 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 IR Technology

With IR illumination, detailed images can be captured in low light or total darkness. The camera's Smart IR technology adjusts the intensity of camera's infrared LEDs to compensate the distance of an object. Smart IR technology prevents IR LEDs from whitening out images as they come closer to the camera. The camera's integrated infrared illumination provides high performance in extreme low-light environments up to 50m (164ft).

Protection (IP67, wide voltage)

The camera allows for ±25% input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 2KV 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.

Environmental

Dahua cameras operate in extreme temperature environments, rated for use in temperatures from-30° C to +60° C (-22° F to +140° F) with 95% humidity.

Interoperability

The camera conforms to the ONVIF (Open Network Video Interface Forum) specifications, ensuring interoperability between network video products regardless of manufacturer.

Technical Specification

Camera

Image Sensor	1/2” 8Megapixel progressive scan CMOS
Effective Pixels	3840(H) x 2160(V)
RAM/ROM	512MB/128MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual, 1/3(4)~1/100000s
Minimum Illumination	0.003Lux/F1.6(Color,1/3s,30IRE) 0.08Lux/F1.6(Color,1/30s,30IRE) 0Lux/F1.6(IR on)
S/N Ratio	More than 50dB
IR Distance	Distance up to 50m (164ft)
IR On/Off Control	Auto/ Manual
IR LEDs	2

Lens

Lens Type	Fixed
Mount Type	Board-in
Focal Length	2.8mm (4mm, 6mm optional)
Max. Aperture	F1.6
Angle of View	H: 131° (102°, 64°), V: 111° (87°, 55°)
Optical Zoom	N/A
Focus Control	Fixed
Close Focus Distance	1.5m (16.4ft)

	Lens	Detect	Observe	Recognize	Identify
DORI Distance	2.8mm	84m(276ft)	34m(112ft)	17m(56ft)	8m(26ft)
	4.0 mm	104m(341ft)	42m(138ft)	21m(69ft)	10m(33ft)
	6.0 mm	164m(538ft)	66m(217ft)	33m(108ft)	16m(53ft)

PTZ

Pan/Tilt/Rotation Range	Pan:0˚~355˚; Tilt:-20˚~70˚; Rotation:0˚~355˚

Intelligence

Event Trigger	Motion detection, Video tampering, Scene changing, Network disconnection, IP address conflict, Illegal access, Storage anomaly
IVS	Tripwire, Intrusion

Video

Compression	H.265/H.264H/MJPEG(Sub Stream)
Smart Codec	Support H.265+/H.264+
Streaming Capability	2 Streams
Resolution	4K(3840×2160)/6M(3072×2048)/5M(2560×1920)/ 3M(2048x1536)/3M(2304×1296)/ 1080P(1920×1080)/1.3M(1280x960)/ 720P(1280×720)/D1(704×576/704×480) / VGA(640×480)/CIF(352×288/352×240)
Frame Rate	Main Stream: 4K (1~25/30fps)
	Sub Stream: D1(1~25/30fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264:24K ~ 8192Kbps H.265:32K~ 8192Kbps
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 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	N/A

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; Bonjou;IEEE 802.1X;Multicast;ICMP;IGMP;TLS;NF S;SSH
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
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	N/A
Audio Interface	N/A
RS485	N/A
Alarm	N/A

Electrical

Power Supply	DC12V, PoE (IEEE802.3af)(Class 0)
Power Consumption	<7.8W

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	N/A

Construction

Casing	Metal
Dimensions	180mm×70mm×70mm (7.09”×2.76”×2.76”)
Net Weight	0.48kg (1.06lb)
Gross Weight	0.51 kg (1.12lb)

Ordering Information

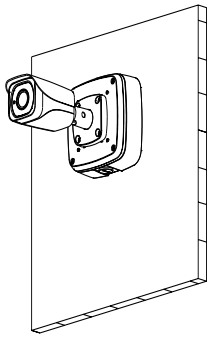
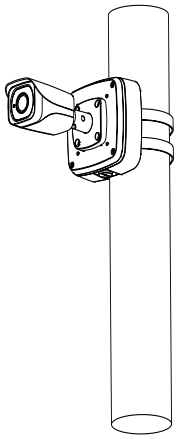
Type	Part Number	Description
8MP camera	DH-IPC-HFW1831EP-0280B	8MP IR Mini Bullet Network Camera, WDR, PAL
	DH-IPC-HFW1831EN-0280B	8MP IR Mini Bullet Network Camera, WDR,NTSC
	IPC-HFW1831EP-0280B	8MP IR Mini Bullet Network Camera, WDR, PAL
	IPC-HFW1831EN-0280B	8MP IR Mini Bullet Network Camera, WDR,NTSC
	DH-IPC-HFW1831EP-0400B	8MP IR Mini Bullet Network Camera, WDR, PAL
	DH-IPC-HFW1831EN-0400B	8MP IR Mini Bullet Network Camera, WDR,NTSC
	IPC-HFW1831EP-0400B	8MP IR Mini Bullet Network Camera, WDR,PAL
	IPC-HFW1831EN-0400B	8MP IR Mini Bullet Network Camera, WDR,NTSC
	DH-IPC-HFW1831EP-0600B	8MP IR Mini Bullet Network Camera, WDR, PAL
	DH-IPC-HFW1831EN-0600B	8MP IR Mini Bullet Network Camera, WDR,NTSC
	IPC-HFW1831EP-0600B	8MP IR Mini Bullet Network Camera, WDR,PAL
	IPC-HFW1831EN-0600B	8MP IR Mini Bullet Network Camera, WDR,NTSC
Accessories (optional)	PFA121	Junction box
	PFA152-E	Pole Mount

Accessories

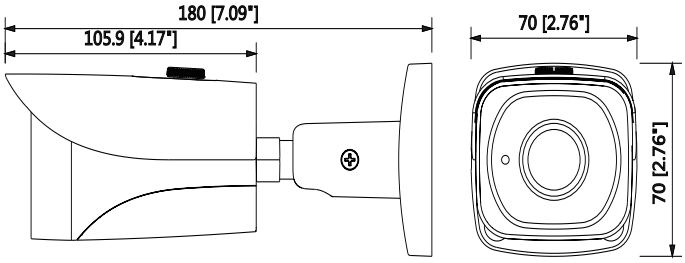
Optional:

PFA121
Junction box

PFA152-E
Pole Mount

Junction Mount	Pole Mount
PFA121	PFB121 + PFA152-E
	

Dimensions (mm/inch)



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