

DH-IPC-HFW4431R-Z

4MP Motorized Varifocal IR Bullet Network Camera



System Overview

The varifocal Bullet camera delivers 4MP resolution with a motorized 2.7mm – 12mm 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 with the Smart IR technology and intelligent image analysis techniques. The H.265 encoding technology brings high efficient video compression and saves bandwidth and storage, energy-saving design to enhance the monitoring system.

Functions

True Day/Night

A day/night mechanical IR cut filter makes this camera ideal for applications with fluctuating lighting conditions, delivering color images during the day and automatically switching to monochrome as the scene darkens

Smart IR

With IR illumination, detailed images can be captured in low light or total darkness. The camera's Smart IR technology adjusts to the intensity of camera's infrared LEDs to compensate for 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).

- 1/3" 4 Megapixel progressive scan CMOS
- H.265 & H.264 triple-stream encoding
- 20fps@4M(2560x1440) & 25/30fps@3M (2304x1296)
- Smart Detection supported
- WDR(120dB), Day/Night(ICR), 3DNR, AWB, AGC, BLC
- Multiple network monitoring: Web viewer, CMS (DSS/PSS) & DMSS
- 2.7-12mm motorized varifocal lens
- Max. IR LEDs Length 50m
- IP67, PoE



Protection

Supporting $\pm 30\%$ input voltage tolerance, this camera suits even the most unstable conditions for outdoor applications. Its 4KV lightning rating provides protection against the camera and its structure from the effects of lightning.

Intelligent Video System (IVS)

With built-in intelligent video analytics, the camera has the ability to detect and analyze moving objects for improved video surveillance. The camera provides optional standard intelligence at the edge allowing detection of multiple object behaviours such as abandoned or missing objects. IVS also supports Tripwire analytics, allowing the camera to detect when a pre-determined line has been crossed, ideal for business intelligence, and Facial Detection, for searching or identification of individuals.

HEVC (H.265)

H.265 ITU-T VCEG is a new video coding standard. H.265 Following standard developed around the existing video coding standard H.264, some retain the original technology, while some of the relevant technology to improve the new technology uses advanced technology to improve the relationship between the code stream, encoding quality, and the delay between algorithm complexity, optimize settings specific contents include: Improve compression efficiency, improve the robustness and error recovery capabilities, real-time to reduce the delay, reduce channel acquisition time and a random

Technical Specifications

Camera

Image Sensor	1/3" 4Megapixel progressive scan CMOS
Effective Pixels	2560(H)x1440(V)
RAM/ROM	512MB/32MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual, 1/3(4)~1/100000s
Minimum Illumination	0.08Lux/F2.0(Color,1/3s,30IRE) 0.3Lux/2.0(Color,1/30s,30IRE) 0Lux/F2.0(IR on)
S/N Ratio	More than 50dB
IR Distance	50m (164ft)
IR On/Off Control	Auto/ Manual
IR LEDs	4

Lens

Lens Type	Motorized(-ZS),Manual(-VFS)
Mount Type	Board-in
Focal Length	2.7mm~12mm
Max. Aperture	F1.4
Angle of View	H:100°~35°, V:54°~20°
Focal Control	Auto (-ZS),Fixed(-VFS)
Close Focus Distance	0.3m

Pan/Tilt/Rotation

Pan/Tilt/Rotation Range	Pan:0°~360°; Tilt:0°~90°; Rotation: 0°~360° (manual)
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Intelligence

IVS	Tripwire, Intrusion, Object Abandoned/ Missing
Advanced Intelligent Functions	Face Detection

Video

Compression	H.265+/H.265/H.264+/H.264
Streaming Capability	3 Streams
Resolution	4M(2560×1440)/3M(2304×1296)/ 1080P(1920×1080)/1.3M(1280×960)/ 720P(1280×720)/D1(704×576/704×480)/ VGA(640×480)/CIF(352×288/352×240)
Frame Rate	Main Stream: 4M(1~25/30fps) Sub Stream: D1(1~25/30fps) Third Stream: 720P(1~25/10fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 24~10240Kbps H.265: 14~9984Kbps

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
Digital Zoom	16x
Flip	0°/90°/180°/270°
Mirror	Off/On
Privacy Masking	Off / On (4 Area, Rectangle)

Audio

Compression	N/A
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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
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	Smart PSS, DSS, Easy4ip
Smart Phone	iOS, Android

Certifications

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

Audio Interface	N/A
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Electrical

Power Supply	DC12V, PoE (802.3af)(Class 0)
Power Consumption	<13W

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

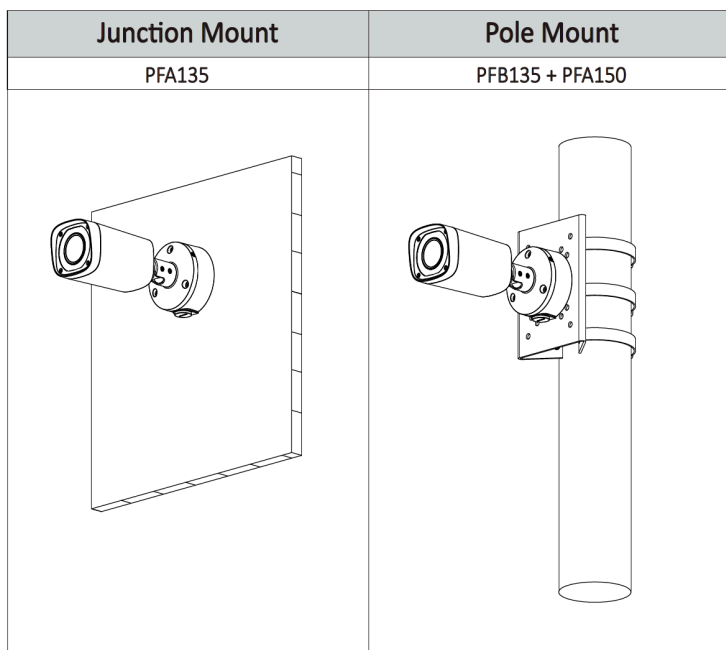
Casing	Metal
Dimensions	72mm×80mm×212.8mm ((2.8" x 3.1" x 8.4"))
Net Weight	0.685Kg (1.51lb)
Gross Weight	0.86Kg (1.90lb)

Ordering Information

Type	Part Number	Description
4MP Camera	DH-IPC-HFW4431R-Z	4MP Motorized Varifocal IR Bullet Network Camera

Accessories

Optional:



Dimensions (mm/inch)

