Dahua
TECHNOLOGY

DH-IPC-HFW2221R-ZS/VFS-IRE6
2MP WDR IR Bullet Network Camera

· 1/2.7" 2Megapixel progressive CMOS
· H.264+ & H.264 dual-stream encoding
· 25/30fps@2M(1920×1080)
· WDR(120dB), Day/Night(ICR), 3DNR, AWB, AGC, BLC
· Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
· Micro SD card slot, up to 128GB
· 2.7~12mm varifocal lens
· Max IR LEDs Length 60m
· IP67, PoE

2Mp | H.264+ | WDR | 60m IR | IP67

System Overview

The IR Megapixel Vari-focal Bullet camera delivers 2MP resolution with a motorized 2.7mm – 12mm varifocal 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

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

Regions of interest
Regions of Interest (ROI) is a user defined feature that allows the operator to monitor specific areas of a scene while still maintaining overall situational awareness of less important areas

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 whiting 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 60m (197ft).

Wide Dynamic Range
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.

ladder, or spending time away from the office

Image flip
Capturing unnecessary data such as surrounding hallway walls can increase storage requirements without any added value. The image flip feature allows the camera's image to be rotated in 90° increments for better video optimization.

Protection
Supporting ±10% input voltage tolerance, this camera suits even the most unstable conditions for outdoor applications. Its 6KV lightning rating provides protectection against the camera and its structure from the effects of lightning.

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

Smart H.264+
Delivering high quality video without straining the network, Smart H.264+ is the optimized implementation of H.264. The Smart H.264+ encoding platform includes a scene adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction, providing a savings of up to 70% of bandwidth and storage when compared with standard H.264.

ONVIF PSIA

Technical Specification

Camera

Image Sensor	1/2.7" 2Megapixel progressive CMOS
Effective Pixels	1920(H) x1080(V)
RAM/ROM	256MB/16MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual, 1/3(4)~1/100000s
Minimum Illumination	0.1Lux/F1.4(Color), 0Lux/F1.4(IR on)
S/N Ratio	More than 50dB
IR Distance	Distance up to 60m(197ft)
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:99°~37°, V:52°~21°
Focus Control	Motorized (-ZS),Manual(-VFS)
Close Focus Distance	0.3m

	Lens	Detect	Observe	Recognize	Identify
DORI Distance	W	47m(154ft)	19m(62ft)	9m(30ft)	5m(16ft)
	T	129m(423ft)	51m(167ft)	26m(85ft)	13m(43ft)

PTZ

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

Video

Compression	H.264+/H.264
Streaming Capability	2 Streams
Resolution	1080P(1920x1080)/1.3M(1280x960)/720P(1280×720)/D1(704×576/704×480)/CIF(352×288/352×240)
Frame Rate	2M (1 ~ 25/30fps)
	D1/CIF(1 ~ 25/30fps)
Bit Rate Control	CBR/VBR
Bit Rate	H264:24K ~ 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 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

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;
Interoperability	ONVIF, PSIA, CGI
Streaming Method	Unicast / Multicast
Max. User Access	10 Users/20 Users
Edge Storage	NAS(Network Attached Storage) Local PC for instant recording Micro 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	N/A
Audio Interface	N/A
RS485	N/A
Alarm	N/A

Electrical

Power Supply	DC12V PoE (802.3af)(Class 0)
Power Consumption	<12.95W

Environmental

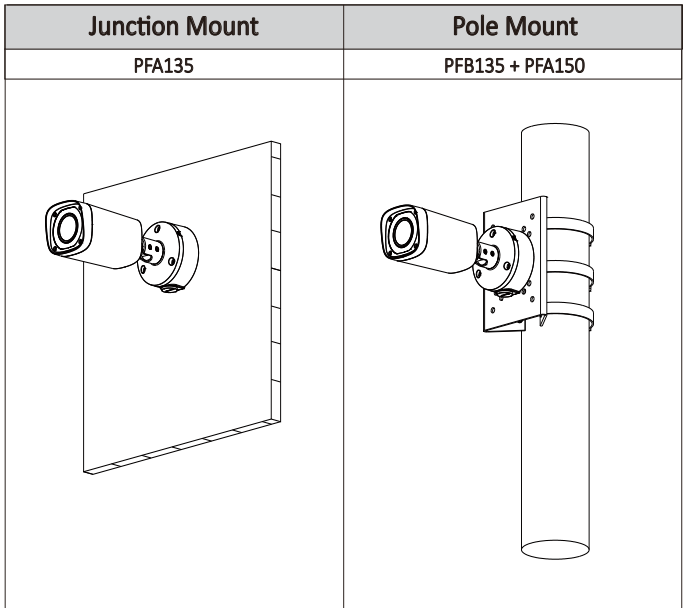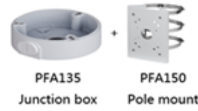|	
Operating Conditions	-30° C ~ +60° C (-22° F ~ +140° F) / Less than 95% RH
Strorage Conditions	-30° C ~ +60° C (-22° F ~ +140° F) / Less than 95% RH
Ingress Protection	IP67
Vandal Resistance	N/A

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
2MP camera	DH-IPC-HFW2221RP-ZS-IRE6	2MP WDR IR Bullet Network Camera, PAL
	DH-IPC-HFW2221RN-ZS-IRE6	2MP WDR IR Bullet Network Camera, NTSC
	IPC-HFW2221RP-ZS-IRE6	2MP WDR IR Bullet Network Camera, PAL
	IPC-HFW2221RN-ZS-IRE6	2MP WDR IR Bullet Network Camera, NTSC
	DH-IPC-HFW2221RP-VFS-IRE6	2MP WDR IR Bullet Network Camera, PAL
	DH-IPC-HFW2221RN-VFS-IRE6	2MP WDR IR Bullet Network Camera, NTSC
	IPC-HFW2221RP-VFS-IRE6	2MP WDR IR Bullet Network Camera, PAL
	IPC-HFW2221RN-VFS-IRE6	2MP WDR IR Bullet Network Camera, NTSC
Accessories (optional)	PFA135	Junction box
	PFA150	Pole mount

Accessories

Optional:

PFA135 Junction box + PFA150 Pole mount

Junction Mount	Pole Mount
PFA135	PFB135 + PFA150

Dimensions (mm/inch)

213.0 [8.39"]
133.1 [5.24"]
90.4 [3.56"]
90.4 [3.56"]