IR Megapixel Vari-focal Bullet

2MP Network Camera



- Max 30fps@2MP (1920×1080)
- True WDR (120dB)
- True Day/Night
- 2.7mm ~ 12mm motorized lens
- Smart IR 50m (165ft)
- 2/1 Alarm in/out, 1/1 audio in/out
- Outdoor Rated IP67
- Intelligent Video System (optional)
- Onboard Storage



System Overview

The IR Megapixel Vari-focal Bullet camera delivers 2MP resolution with 2.7mm~12mm motorized 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.

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
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 prevents IR LEDS from whiting out images as they come closer to the camera. The camera's integrated IR illumination provides high performance in extreme low-light environments up to 50m (165ft).

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.

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.

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

Protection
The camera's outstanding reliability is unsurpassed due to its rugged design. The camera is protected against water and dust to IP67 standards, making it suitable for indoor or outdoor environments. With its IK10 rated impact resistant design, the camera provides maximum durability against vandals making it capable of withstanding the equivalent of 55 kg (120lbs) of force.

Supporting ±25% input voltage tolerance, this camera suits even the most unstable conditions for outdoor applications. Its 8KV lightning rating provides protection against the camera and its structure from the effects of lightning.

Streaming
With a choice of unicast or multicast streaming, bandwidth-efficient viewing, recording and third-party video management can easily be achieved. Dual streaming enables bandwidth-efficient viewing and recording. Depending on the resolution and frame rate selected on the first stream, the second stream provides a copy at a lower resolution.

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.

Technical Specification

Camera

Image Sensor	1/2.7" CMOS
Effective Pixels	1920(H) x 1080(V)
ROM / RAM	128MB /256MB
Scanning System	Progressive
Electronic Shutter Speed	1/3(4) ~ 1/100,000s
Minimum Illumination	Color: 0.01 Lux@F1.4; B/W: 0.001 Lux@F1.4; 0 Lux (IR on)
S/N Ratio	More than 50dB
IR Distance	Distance Up to 50m (165ft)
IR On/Off Control	Auto / Manual
IR LEDs	4

Lens

Lens Type	Motorized/ Auto Iris (DC)
Mount Type	Board-in
Focal Length	2.7mm~12mm
Max Aperture	F1.4
Angle of View	H: 99°~34°
Focus Control	Motorized

Pan/Tilt/Rotation

Pan/Tilt Range	Pan: 0° ~ 355°; Tilt: 0° ~ 65°, Rotation：0° ~ 355°

Alarm and Audio

Alarm In/Out	2/1
Audio In/Out	1/1

Video

Compression	Smart H.264+ / MJPEG
Streaming Capability	3 Streams
Resolution	1080p (1920×1080) / 720p (1280×720) / D1(704×576/704×480)/CIF (352×288/352×240)
Frame Rate	Main Stream 1080p/720p (1 ~ 30fps) Sub Stream 1 D1/CIF (1 ~ 30fps) Sub Stream 2 720p (1 ~ 14fps)
Bit Rate Control	CBR / VBR
Bit Rate	H.264: 32K ~ 10Mbps
Day/Night	Auto (ICR) / Color / B/W
BLC Mode	BLC / HLC / WDR (120dB)
White Balance	Auto / Sunny / Night / Outdoor / Customized
Gain Control	Auto / Manual
Noise Reduction	3D DNR
Motion Detetion	Off / On (4 Zone, Rectangle)
Region of Interest	Off / On (4 Zone)
Smart IR	Support
Digital Zoom	16x
Flip	0°/90°/180°/270°
Mirror	Off / On
Privacy Masking	Off / On (4 Area, Rectangle)

Intelligent Function

IVS (optional)	Tripwire, Intrusion, Abandoned Object Detection, Missing Object Detection, Face Detection

Network

Ethernet	RJ-45 (10/100Base-T)
Protocol	IPv4/ IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, SMTP, NTP, DHCP, DNS, PPPOE, DDNS, FTP, IP Filter, QoS, Bonjour, 802.1x
Interoperability	ONVIF, PSIA, CGI
Streaming Method	Unicast / Multicast
Max. User Access	20
Edge Storage	NAS (Network Attached Storage), Local PC for instant recording, Micro SD 128GB
Web Viewer	IE10....
Management Software	Smart PSS, DSS
Smart Phone	Android, Ios

Certifications

Certifications	FCC (SEFD1504142-A) UL (E234884-A66-UL)

Electrical

Power Supply	DC12V (AC24V optional), ±25%, PoE (af Class 0)
Power Consumption	Max. 11.5W (12V DC, with IR on, motorized lens working)

Environmental

Operating Conditions	-30°C ~ +60°C (-22°F ~ +140°F) / Less than 90% RH
Storage Conditions	-30°C ~ +60°C (-22°F ~ +140°F) / Less than 90% RH
Ingress Protection	IP67

Construction

Casing	Metal+Plastic
Dimensions	272.9 mm × 94.9mm× 94.9mm (10.74" x 3.73" x 3.73")
Net Weight	1.2Kg (2.65lb)
Gross Weight	1.4Kg (3.09lb)

Ordering Information

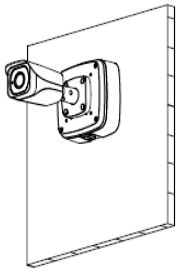
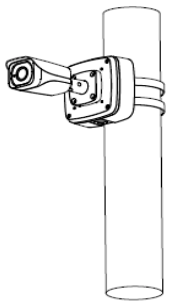
Type	Part Number	Description
2MP Camera	DH-IPC-HFW52A1EN-Z	2MP, 2.7mm~12mm, True D/N, True WDR, IP67, IR: up to 50m (165ft), PoE, Smart H.264+
	DH-IPC-HFW52A1EN-ZI	2MP, 2.7mm~12mm, True D/N, True WDR, IP67, IR: up to 50m (165ft), PoE, IVS, Smart H.264+
Accessories	PFA121	Junction Box
	PFA152	Pole Mount Bracket
	PFA150	Pole Mount Bracket
	PFA151	Corner Mount Bracket

Accessories

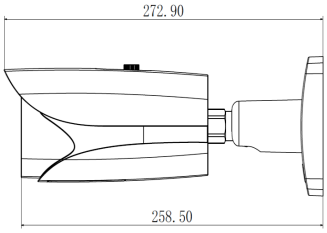
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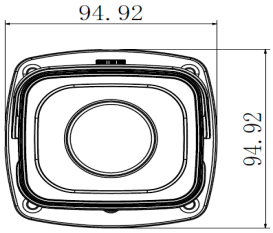


PFA121 Junction box | PFA152 Pole mount | PFA150 Pole mount | PFA151 Corner mount

Junction Mount	Pole Mount
PFA121	**PFA152+PFA121**
	

Dimensions (mm/inch)





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