

# IR Megapixel Fixed Bullet

## 2MP Bullet Network Camera



- Max 30 fps at 2 MP (1920×1080)
- True WDR (120 dB)
- True Day/Night
- Fixed Lens Options: 3.6 mm, 6 mm
- Smart IR 40 m (130 ft)
- Outdoor Rated IP67
- Intelligent Video System (IVS)
- Five-year Warranty



### System Overview

The IR Megapixel Fixed Bullet camera delivers 2MP resolution with a choice of 3.6mm or 6mm 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.

### 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 infrared illumination provides high performance in extreme low-light environments up to 40m (130ft).

#### 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 intelligent video analytics, the camera has the ability to detect and analyze moving objects for improved video surveillance. The camera provides standard intelligence 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.

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. Multiple streaming enables bandwidth-efficient viewing and recording. Depending on the resolution and frame rate selected on the first stream, the second and third 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

<b>Image Sensor</b>	1/2.7" CMOS
<b>Effective Pixels</b>	1920(H) x 1080(V)
<b>ROM / RAM</b>	16MB / 256MB
<b>Scanning System</b>	Progressive
<b>Electronic Shutter Speed</b>	1/3(4) ~ 1/100,000s
<b>Minimum Illumination</b>	Color: 0.01Lux@F2.0; B/W: 0.001Lux@F2.0; 0 Lux (IR On)
<b>S/N Ratio</b>	More than 50dB
<b>IR Distance</b>	Distance Up to 40m (130ft)
<b>IR On/Off Control</b>	Auto / Manual
<b>IR LEDs</b>	4

### Lens

<b>Lens Type</b>	Fixed
<b>Mount Type</b>	Board-in
<b>Focal Length</b>	3.6mm/6mm
<b>Max Aperture</b>	F2.0/F2.0
<b>Angle of View</b>	H: 93°/63°
<b>Focus Control</b>	Fixed

### PTZ

<b>Pan/Tilt Range</b>	Pan: 0° ~ 360°; Tilt: 0° ~ 78°, Rotation: 0° ~ 360°
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### Video

<b>Compression</b>	Smart H.264+ / MJPEG
<b>Streaming Capability</b>	3 Streams
<b>Resolution</b>	1080p (1920×1080) / 720p (1280×720) / D1 (704×576/704×480) / CIF (352×288/352×240)
<b>Frame Rate</b>	Main Stream 2MP (1 ~ 30fps) Sub Stream 1 D1/CIF (1 ~ 30fps) Sub Stream 2 720p (1 ~ 20fps)
<b>Bit Rate Control</b>	CBR / VBR
<b>Bit Rate</b>	H.264: 4K ~ 10Mbps
<b>Day/Night</b>	Auto (ICR) / Color / B/W
<b>BLC Mode</b>	BLC / HLC / WDR (120dB)
<b>White Balance</b>	Auto/Sunny/Night/Outdoor/Customized
<b>Gain Control</b>	Auto / Manual
<b>Noise Reduction</b>	3D DNR
<b>Motion Detetion</b>	Off / On (4 Zone, Rectangle)
<b>Region of Interest</b>	Off / On (4 Zone)
<b>Smart IR</b>	Support
<b>Digital Zoom</b>	16x
<b>Flip</b>	0°/90°/180°/270°
<b>Mirror</b>	Off / On
<b>Privacy Masking</b>	Off / On (4 Area, Rectangle)

### Network

<b>Ethernet</b>	RJ-45 (10/100Base-T)
<b>Protocol</b>	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
<b>Interoperability</b>	ONVIF, PSIA, CGI
<b>Streaming method</b>	Unicast / Multicast
<b>Max. User Access</b>	20
<b>Web Viewer</b>	IE 10, Firefox, Safari
<b>Management Software</b>	Smart PSS, DSS
<b>Smart Phone</b>	Android, ios

## Certifications

Certifications	FCC (SEFD1504142-A ) UL (E234884-A63-UL)
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## Electrical

Power Supply	12V DC $\pm 25\%$ , PoE (af Class 0)
Power Consumption	Max. 6.0W (12V DC, IR On)

## 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	70mm×70mm×180mm (2.76" x 2.76" x 7.08")
Net Weight	0.41 kg (0.90lb)
Gross Weight	0.53 kg (1.17lb)

## Intelligence

IVS triggers an alarm and takes a defined action for the following events:

<b>Standard Features</b>	Tampering with the camera. Camera loses or changes focus drastically. Error writing to an onboard Micro SD card. Error sending or receiving data over the network. Unauthorized access to the camera.
<b>Premium Features</b>	
<b>Motion</b>	An object moves through any part of the scene.
<b>Tripwire</b>	A target crosses a user-defined line.
<b>Intrusion</b>	A target enters or exits a defined perimeter.
<b>Scene Change</b>	A person or object moves the camera to change the scene or covers the camera to obscure the scene.
<b>Abandoned/Missing Object</b>	A target leaves an object in designated area, or a target removes an object from the same designated area.
<b>Advanced Features</b>	
<b>Facial Detection</b>	Detects and captures a snapshot of a human face in a defined area within a scene.

## Accessories

Optional:



PFA121  
Junction box



PFA152  
Pole mount



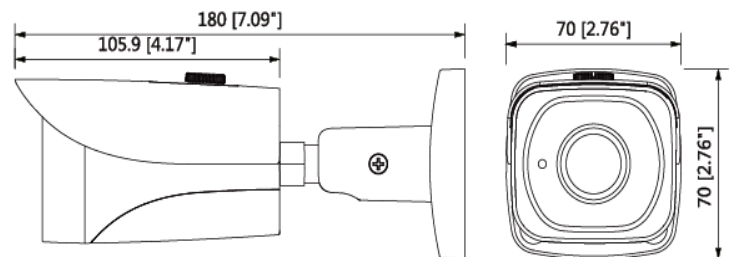
PFA150  
Pole mount



PFA151  
Corner mount

Junction Mount	Pole Mount
<b>PFA121</b>	<b>PFA152+PFA121</b>

## Dimensions (mm/inch)



## Ordering Information

Type	Part Number	Description
2MP Camera	DH-IPC-HFW42A1EN	2MP, 3.6mm, True D/N, True WDR, IP67, IR: up to 40m (130ft), PoE, IVS
	DH-IPC-HFW42A1EN	2MP, 6mm, True D/N, True WDR, IP67, IR: up to 40m (130ft), PoE, IVS
Accessories	PFA121	Junction Box
	PFA152	Pole Mount Bracket
	PFA150	Pole Mount Bracket
	PFA151	Corner Mount Bracket