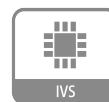


IR Megapixel Vari-focal Bullet

3MP Starlight Network Camera



- Max 30 fps at 3 MP (2048 x 1536)
- Starlight Technology for Dark Environments
- Ultra WDR (140 dB)
- True Day/Night
- 2.7 mm to 12 mm Motorized Lens
- Smart IR 50 m (165 ft)
- 2/1 Alarm in/out, 1/1 Audio in/out
- Outdoor Rated IP67
- Intelligent Video System (IVS)
- Onboard Storage
- Five-year Warranty



System Overview

The IR Megapixel Vari-focal Bullet camera delivers 3MP 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.

Starlight Technology

For challenging low-light applications, Dahua's Starlight models offer best-in-class light sensitivity capturing color details in low light down to 0.005 lux. These cameras overcome challenging lighting conditions by using a judicious selection of optical parameters to balance light throughout the image process. The result is stunningly clear images in very dark environments.

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).

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, Ultra WDR (140dB) 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, People Counting, ideal for business intelligence, Facial Detection, for searching or identification of individuals, and Heat map for exporting the daily or hours report that shows the hottest area.

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

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 $\pm 25\%$ 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.

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.

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.

Technical Specification

Camera

| | |
|--------------------------|--|
| Image Sensor | 1/2.8-in. CMOS |
| Effective Pixels | 2048(H) x 1536(V) |
| ROM / RAM | 128MB / 256MB |
| Scanning System | Progressive |
| Electronic Shutter Speed | 1/3 ~ 1/100,000s |
| Minimum Illumination | Color: 0.005 Lux at F1.4; 0 Lux at F1.4 (IR on) |
| S/N Ratio | More than 50dB |
| IR Distance | Distance Up to 50 m (165 ft) |
| IR On/Off Control | Auto / Manual |
| IR LEDs | 4 |
| Vedio Output | 1 |

Lens

| | |
|---------------|---------------------------|
| Lens Type | Motorized/ Auto Iris (DC) |
| Mount Type | Board-in |
| Focal Length | 2.7 mm to 12 mm |
| Max Aperture | F1.4 |
| Angle of View | H: 94° to 33° |
| Focus Control | Motorized |

Pan/Tilt/Rotation

| | |
|----------------|---|
| Pan/Tilt Range | Pan: 0° to 355°; Tilt: 0° to 65°, Rotation: 0° to 355° |
|----------------|---|

Alarm and Audio

| | |
|--------------|-----|
| Alarm In/Out | 2/1 |
| Audio In/Out | 1/1 |

Video

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|----------------------|---|
| Compression | H.265 / H.264 / MJPEG |
| Streaming Capability | 3 Streams |
| Resolution | 3 MP (2048 × 1536), 1080p (1920 × 1080), 720p (1280 × 720), D1 (704 × 576), CIF (352 × 288) |
| Frame Rate | Main Stream 3 MP at 30 fps Sub Stream 1 D1/CIF at 30 fps Sub Stream 2 1080p/720p/D1 at 30 fps |
| Bit Rate Control | CBR / VBR |
| Bit Rate | H.264: 40K ~ 10Mbps |
| Day/Night | Auto (ICR) / Color / B/W |
| BLC Mode | BLC / HLC / Ultra WDR (140dB) |
| White Balance | Auto / Sunny / Night / Outdoor / Customized |
| Gain Control | Auto / Manual |
| Noise Reduction | 3D DNR |
| Motion Detection | 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) |
| EIS | Support |
| Ultra Defog | Support |

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 | IE 10, Firefox, Safari |
| Management Software | Smart PSS, DSS |
| Smart Phone | Android, IOS |

Certifications

| | |
|-----------------------|--|
| Certifications | FCC (SEFD1507095-A) UL (E234884-A79-UL) |
|-----------------------|--|

Electrical

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|--------------------------|--|
| Power Supply | 12 VDC, $\pm 25\%$, PoE (af Class 0) |
| Power Consumption | Max. 11 W (12 VDC, with IR on, motorized lens working) |

Environmental

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

Construction

| | |
|---------------------|---|
| Casing | Metal |
| Dimensions | 272.90 mm \times 94.90 mm \times 94.90 mm (10.74 in. \times 3.73 in. \times 3.73 in) |
| Net Weight | 1.20 kg (2.65 lb) |
| Gross Weight | 1.40 kg (3.09 lb) |

Intelligence

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

| | |
|--------------------------|---|
| Standard Features | 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. |
|--------------------------|---|

Premium Features

| | |
|---------------------------------|--|
| Motion | An object moves through any part of the scene. |
| Tripwire | A target crosses a user-defined line. |
| Intrusion | A target enters or exits a defined perimeter. |
| Scene Change | A person or object moves the camera to change the scene or covers the camera to obscure the scene. |
| Abandoned/Missing Object | A target leaves an object in designated area, or a target removes an object from the same designated area. |

Advanced Features

| | |
|-------------------------|---|
| Facial Detection | Detects and captures a snapshot of a human face in a defined area within a scene. |
| People Counting | Measure the number of customers, visitors or passengers in a surveillance scene. |
| Heat Map | Generates a visual representation of data. |

Accessories

Optional:



PFA121
Junction box



PFA152
Pole mount



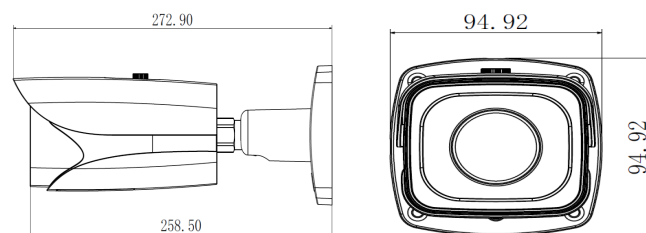
PFA150
Pole mount



PFA151
Corner mount

| Junction Mount | Pole Mount |
|----------------|---------------|
| PFA121 | PFA152+PFA121 |
| | |

Dimensions (mm/inch)



Ordering Information

| Type | Part Number | Description |
|-------------|--------------------|---|
| 3MP Camera | DH-IPC-HFW83A1EN-Z | 3MP, 2.7mm~12mm, True D/N, Ultra WDR, IP67, IR: up to 50m (165ft), PoE, IVS |
| Accessories | PFA121 | Junction Box |
| | PFA152 | Pole Mount Bracket |
| | PFA150 | Pole Mount Bracket |
| | PFA151 | Corner Mount Bracket |