# IPC-HFW5842E-ZE

## 8MP Vari-focal Bullet Network Camera

| | | | | | |
|---|---|---|---|---|---|
| MEGA Megapixel | 16:9 | WDR | 3-Axis | Video Intelligent | Local Storage |
| PoE | D/N | IR LED | | | |

ONVIF

### Overview

Shogun network camera with starlight solution and deep learning algorithm, has various intelligent functions, including face capture, perimeter protection and people counting, which greatly improve the accuracy of video analysis. The series camera supports dust-proof function, waterproof function and vandal-proof function, com -plying with the standards of IP67 and IK10 (Supported by some select models).

### Key Feature

· 8-MP 1/1.8" CMOS image sensor, low luminance, and high definition image.
· Outputs max. 8MP (3840×2160) @25/30 fps.
· Built-in IR LED, and the max. illumination distance is 60 m.
· ROI, SVC, SMART H.264+/H.265+, AI H.264/H.265, encoding after filter, flexible coding, applicable to various bandwidth and storage environments.
· Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes.
· With deep learning algorithm, it supports: video metadata, smart sound detection, IVS, face detection, smart object detection, and people counting, etc.
· Alarm: 2 in, 1 out; audio: 1 in, 1 out; supports max. 1 TB Micro SD card, built-in MIC.
· 12 VDC/PoE power supply; ePoE.
· IP67 and IK10 protection.

### Function

#### Face Detection

Face Detection technology can detect the face in the image. With deep learning algorithm, the technology supports detecting, track- ing, capturing and selecting the best face image, and then outputs face snapshot.

#### Face Attributes

With deep learning algorithm, the network camera can recognize face attributes, such as gender, age, expression, glasses, mouth mask, and beard.

#### Perimeter Protection

With deep learning algorithm, Perimeter Protection technology can recognize human and vehicle accurately. In restricted area (such as pedestrian area and vehicle area), the false alarms of intelligent detec- tion based on target type (such as tripwire, intrusion, fast moving, park- ing detection, loitering detection and gathering detection) are largely reduced.
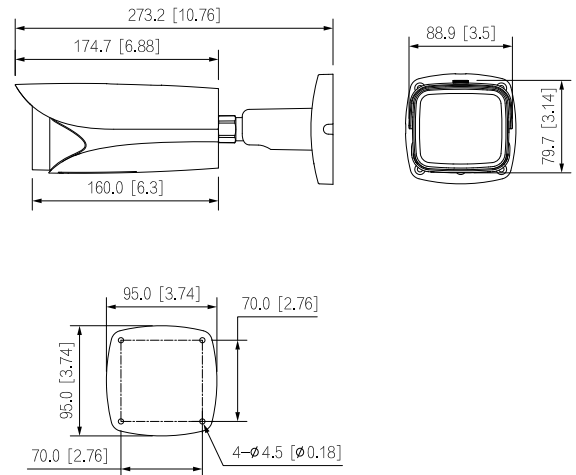
#### People Counting

With deep learning algorithm, People Counting technology can track and process moving human body targets to realize the accurate statistics of enter No., leave No., and In Area No. Working with management platform, it outputs yearly/monthly/daily reports to meet your requirements.

#### Protection (IP67, IK10, wide voltage)

IP67: The camera passes a series of strict test on dust and soak. It has dust-proof function, and the enclosure can works normal after soaking in 1 m deep water for 30 minutes. IK10: The enclosure can stand the punch more than 5 times from a 5 kg hammer falling from a height of 40 cm (Impact energy is 20J). Wide voltage: The camera allows ±30% (for some power supplies) input voltage tolerance (wide voltage range), and it is widely applied to out-door environment with instable voltage.

### Diamensions

273.2 [10.76]
174.7 [6.88]
160.0 [6.3]
88.9 [3.5]
79.7 [3.14]

95.0 [3.74]
70.0 [2.76]
95.0 [3.74]
70.0 [2.76]
4-Ø4.5 [Ø0.18]

CE FC
ISO 9001 QUALITY ASSURANCE MANAGEMENT
ISO 14001 ENVIRONMENTAL MANAGEMENT

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8MP Vari-focal Bullet Network Camera

## Technical Specification

### Camera

| | |
|---|---|
| Image Sensor | 1/1.8" CMOS |
| Max. Resolution | 3840 (H) × 2160 (V) |
| ROM | 4 GB |
| RAM | 2 GB |
| Scanning System | Progressive |
| Electronic Shutter Speed | Auto/Manual 1/3 s–1/100,000 s |
| Min. Illumination | 0.0008 lux@F1.8 (Color, 30 IRE)<br>0.0004 lux@F1.8 (B/W, 30 IRE)<br>0 lux (Illuminator on) |
| S/N Ratio | >56 dB |
| Illumination Distance | Up to 60 m (196.85 ft) (IR) |
| Illuminator On/Off Control | Auto; Zoomprio; Manual |
| Illuminator Number | 4 (IR LED) |
| Angle Adjustment | Pan: 0°–360°<br>Tilt: 0°–90°<br>Rotation: 0°–360° |

### Lens

| | |
|---|---|
| Lens Type | Motorized vari-focal |
| Lens Mount | φ14 |
| Focal Length | 2.7 mm–12 mm |
| Max. Aperture | F1.8 |
| Field of View | H: 113°–47°; V: 60°–26°; D: 133°–53° |
| Iris Control | Auto |
| Close Focus Distance | 1.5 m (4.92 ft) |

| DORI Distance | Lens | Detect | Observe | Recognize | Identify |
|---|---|---|---|---|---|
| | W | 83.4 m (273.62 ft) | 33.4 m (109.58 ft) | 16.7 m (54.79 ft) | 8.3 m (27.23 ft) |
| | T | 189.6 m (622.05 ft) | 75.8 m (248.69 ft) | 37.9 m (124.34 ft) | 19.0 m (62.34 ft) |

*DORI (Detect, Observe, Recognize, Identify) is a standard system (EN-62676-4) for defining the ability of a person viewing the video to distinguish persons or objects within a covered area. The numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and commissioning manual/project design tool.

### Intelligence

| | |
|---|---|
| EPTZ | Yes |
| IVS (Perimeter Protection) | Intrusion, tripwire, fast moving (the three functions support the classification and accurate detection of vehicle, animal and human); loitering detection, people gathering, parking detection. Supports long- distance mode. Supports self-learning, it filters out false alarms. |
| Smart Object Detection | Smart abandoned object; smart missing object |
| SMD | SMD 3.0 |
| AcuPick | Uses deep learning algorithms and works with back-end devices to accurately match targets, such as people, animal,and motor vehicles, and search through live and recorded videos to quickly locate targets. |
| AI SSA | Yes |
| Face Detection | Face detection; track; snapshot; snapshot optimization; optimal face snapshot upload; face enhancement; face exposure; face attributes extraction including 6 attributes and 8 expressions; face snapshot set as face, one-inch photo or custom; snapshot strategies (real-time snapshot, quality priority and optimization snapshot); face angle filter; optimization time setting |
| People Counting | Tripwire people counting, generating and exporting report (day/week/month/year); people counting in area and queue management, generating and exporting report (day/week/month); 4 rules can be set for tripwire, people counting in area and queue management. |
| Heat Map | Yes |
| Video Metadata | Motor vehicle, non-motor vehicle, face, human body detection; track; snapshot; snapshot optimization; optimal face snapshot upload.<br>Motor vehicle attributes: vehicle type, vehicle color, vehicle logo and other attributes : seatbelt, smoking, calling.<br>Non-motor vehicle attributes: type, color, number of people, top type and color, hat.<br>Human body attributes: gender, top/bottom type and color, bag, hat and umbrella.<br>Face attributes: gender, age, expressions, glasses, face mask and beard. |
| Smart Search | Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos |
| Smart Sound Detection | Yes |

### Video

| | |
|---|---|
| Video Compression | H.265; H.264; H.264H; H.264B; MJPEG (Only supported by the sub stream) |
| Smart Codec | Smart H.265+; Smart H.264+ |
| AI Coding | AI H.265; AI H.264 |
| Video Frame Rate | Main stream: 3840 × 2160@(1–25/30 fps)<br>Sub stream: D1@(1–25/30 fps)<br>Third stream: 1080p@(1–25/30 fps)<br>Fourth stream: 720p@(1–10 fps)<br>*The values above are the max. frame rates of each stream; for multiple streams, the values will be subjected to the total encoding capacity. |
| Stream Capability | 4 streams |
| Resolution | 8M (3840 × 2160); 6M (3072 × 2048); 5M (3072 × 1728); 5M (2592 × 1944); 4M (2688 × 1520); 3.6M (2560 × 1440); 3M (2048 × 1536); 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) |
| Bit Rate Control | CBR/VBR |
| Video Bit Rate | H.264: 32 kbps–16384 kbps<br>H.265: 12 kbps–13568 kbps |
| Day/Night | Auto(ICR)/Color/B/W |

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| | |
|---|---|
| BLC | Yes |
| HLC | Yes |
| WDR | 120 dB |
| Scene Self-adaptation (SSA) | Yes |
| White Balance | Auto; natural; street lamp; outdoor; manual; regional custom |
| Gain Control | Auto |
| Motion Detection | OFF/ON (4 areas, rectangular) |
| Region of Interest (RoI) | Yes (4 areas) |
| Image Stabilization | Electronic Image Stabilization (EIS) |
| Smart Illumination | Yes |
| Defog | Yes |
| Image Rotation | 0°/90°/180°/270° (Support 90°/270° with 4M (2688 × 1520) resolution and lower) |
| Mirror | Yes |
| Privacy Masking | 8 areas |
| LDC | Yes |

## Audio

| | |
|---|---|
| Built-in MIC | Yes |
| Audio Compression | G.711a; G.711Mu; PCM; G.726; G.723 |

## Alarm

| | |
|---|---|
| Alarm Event | No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; fast moving; abandoned object; missing object; loitering detection; people gathering; parking detection; scene changing; audio detection; voltage detection; external alarm; face detection; video metadata; SMD; people counting in area; stay detection; people counting; people number error detection; queue people number alarm; queue time alarm; security exception; defocus detection |

## Network

| | |
|---|---|
| Network Port | RJ-45 (10/100 Enhancement Base-T) |
| SDK and API | Yes |
| Network Protocol | IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; SNMP; P2P; Auto Register |
| Interoperability | ONVIF (Profile S/Profile G/Profile T/Profile M); CGI |
| User/Host | 20 (Total bandwidth: 80 M) |
| Storage | FTP; SFTP; Micro SD card (support max. 1 TB); NAS |

| | |
|---|---|
| Browser | IE: IE 9 and later<br>Chrome: Chrome 102 and later<br>Firefox: Firefox 88 and later |
| Management Software | SmartPSS Lite; DSS; DMSS |
| Mobile Client | iOS; Android |
| Security | Trusted execution; Digest; Security logs; WSSE; Account lockout; Syslog; 802.1x; IP/MAC filtering; HTTPS; Trusted upgrade; Trusted boot; Generation and importing of X.509 certification |

## Certification

| | |
|---|---|
| Certifications | CE-LVD: EN62368-1;<br>CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU;<br>FCC: 47 CFR FCC Part 15, Subpart B;<br>UL/CUL: UL62368-1 & CAN/CSA C22.2 No. 62368-1-14 |

## Port

| | |
|---|---|
| Audio Input | 1 channel (RCA port) |
| Audio Output | 1 channel (RCA port) |
| Alarm Input | 2 channels in: wet contact, 5mA 3V–5V DC |
| Alarm Output | 1 channel out: wet contact, 300mA 12V DC |

## Power

| | |
|---|---|
| Power Supply | 12 VDC/PoE (802.3af)/ePoE |
| Dual Power Backup | When the power adapter and PoE provide power at the same time, disconnect one of them. The device will continue to work, but will not restart. |
| Power Consumption | Basic: 4.0 W (12 VDC); 5.3 W (PoE)<br>Max. (H.265+ WDR+ Intelligence on+IR on): 10.2 W (12 VDC); 12.8 W (PoE) |

## Environment

| | |
|---|---|
| Operating Temperature | −35 °C to +60 °C (−22 °F to +140 °F) |
| Operating Humidity | ≤95% |
| Storage Temperature | −40 °C to +60 °C (−40 °F to +140 °F) |
| Storage Humidity | 10%–95% (RH), non-condensing |
| Protection | IP67; IK10 |

## Structure

| | |
|---|---|
| Casing Material | Metal + plastic |
| Product Dimensions | 273.2 mm × 95.0 mm × 95.0 mm (10.76" × 3.74" × 3.74") (L × W × H) |
| Net Weight | 1.12 kg (2.47 lb) |
| Gross Weight | 1.66 kg (3.66 lb) |