

IPC-HFW5241E-ZE

2MP Vari-focal Bullet Network Camera



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, complying with the standards of IP67 and IK10 (Supported by some select models).

Key Feature

- 2-MP 1/2.8" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 2 MP (1920 × 1080)@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.
- Three switchable intelligent resources: IVS, face detection, and people counting.
- Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card.
- 24 VAC/12 VDC/PoE power supply, easy for installation.
- 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, tracking, 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 detection based on target type (such as tripwire, intrusion, fast moving, parking detection, loitering detection and gathering detection) are largely reduced.

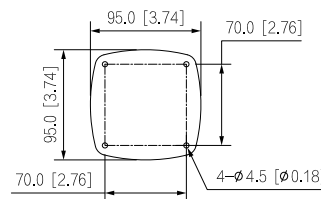
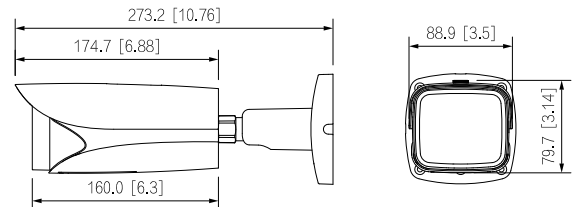
People Counting

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 work 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 $\pm 30\%$ (for some power supplies) input voltage tolerance (wide voltage range), and it is widely applied to out-door environment with instable voltage.

Dimensions



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Technical Specification

Camera

| | |
|----------------------------|---|
| Image Sensor | 1/2.8" CMOS |
| Max. Resolution | 1920 (H) × 1080 (V) |
| ROM | 128 MB |
| RAM | 512 MB |
| Scanning System | Progressive |
| Electronic Shutter Speed | Auto/Manual 1/3 s–1/100,000 s |
| Min. Illumination | 0.002 lux@F1.5 (Color, 30 IRE) 0.0002 lux@F1.5 (B/W, 30 IRE) 0 lux (Illuminator on) |
| S/N Ratio | >56 dB |
| Illumination Distance | 60 m (196.85 ft) (IR) |
| Illuminator On/Off Control | Auto |
| Illuminator Number | 4 (IR LED) |
| Pan/Tilt/Rotation Range | Pan: 0°–360° Tilt: 0°–90° Rotation: 0°–360° |

Lens

| | | | | | |
|----------------------|---|------------------------|-----------------------|----------------------|----------------------|
| Lens Type | Motorized vari-focal | | | | |
| Lens Mount | φ14 | | | | |
| Focal Length | 2.7 mm–13.5 mm | | | | |
| Max. Aperture | F1.5 | | | | |
| Field of View | Horizontal: 109°–30° Vertical: 57°–17° Diagonal: 131°–35° | | | | |
| Iris Control | Auto | | | | |
| Close Focus Distance | 0.8 m (2.62 ft) | | | | |
| DORI Distance | Lens | Detect | Observe | Recognize | Identify |
| | W | 44.1 m (144.69 ft) | 17.6 m (57.74 ft) | 8.8 m (28.87 ft) | 4.4 m (14.44 ft) |
| | T | 146.2 m (479.66 ft) | 58.4 m (191.60 ft) | 29.2 m (85.80 ft) | 14.6 m (47.90 ft) |

Smart Event

| | |
|----------|----------------------------------|
| IVS | Abandoned object; missing object |
| Heat Map | Yes |

Professional, intelligent

| | |
|----------------------------|--|
| IVS (Perimeter Protection) | Intrusion, tripwire, fast moving (the three functions support the classification and accurate detection of vehicle and human); loitering detection, people gathering, and parking detection |
| SMD 3.0 | Less false alarm, longer detection distance |
| Face Detection | Face detection; track; snapshot; snapshot optimization; optimal face snapshot upload; face enhancement; face exposure; face attributes extraction including 6 attributes (gender, age, glasses, expressions, mask, and beard) and 8 expressions (angry, sad, disgusted, scared, surprised, calm, happy, confused); face snapshot set as face or one-inch photo; snapshot strategies (real-time snapshot, quality priority and optimization snapshot); face angle filter; optimization time setting |
| People Counting | Tripwire people counting and people counting in area, generating and exporting report (day/month/year); queue management, generating and exporting report (day/month); 4 rules can be set for tripwire, people counting in area and queue management |
| Smart Search | Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos |

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: 1920 × 1080@ (1 fps–25/30 fps) Sub stream: D1@ (1 fps–25/30 fps) Third stream: 1080p@ (1 fps–25/30 fps) *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 | 3 streams |
| Resolution | 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–8192 kbps H.265: 32 kbps–8192 kbps |
| Day/Night | Auto (ICR)/Color/B/W |
| 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; manual |
| Noise Reduction | 3D NR |
| Motion Detection | OFF/ON (4 areas, rectangular) |

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| | |
|--------------------------|--------------------------------------|
| Region of Interest (RoI) | Yes (4 areas) |
| Image Stabilization | Electronic Image Stabilization (EIS) |
| Smart Illumination | Yes |
| Defog | Yes |
| Image Rotation | 0°/90°/180°/270° |
| Mirror | Yes |
| Privacy Masking | 8 areas |

Audio

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|-------------------|------------------------------------|
| Audio Compression | PCM; G.711a; G.711Mu; G.726; G.723 |
|-------------------|------------------------------------|

Alarm

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|-------------|--|
| Alarm Event | No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; defocus detection; scene changing; tripwire; intrusion; abandoned object; missing object; fast moving; parking detection; loitering detection; people gathering; input error; intensity change; people counting; face detection; voltage detection; people counting in area; stay detection; people number error detection; queue management |
|-------------|--|

Network

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|---------------------|---|
| Network Port | RJ-45 (10/100 Enhancement Base-T) |
| SDK and API | Yes |
| Cyber Security | Video encryption; firmware encryption; configuration encryption; Digest; WSSE; account lockout; security logs; IP/MAC filtering; generation and importing of X.509 certification; syslog; HTTPS; 802.1x; trusted boot; trusted execution; trusted upgrade |
| Network Protocol | IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; SNMP; Bonjour |
| Interoperability | ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone |
| User/Host | 20 (Total bandwidth: 88 M) |
| Storage | FTP; SFTP; Micro SD card (support max. 256 GB); NAS |
| Browser | IE: IE8 and later Chrome Firefox |
| Management Software | Smart PSS; DSS; DMSS |
| Mobile Client | iOS; Android |

Certification

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|----------------|---|
| Certifications | CE-LVD: EN 62368-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07 |
|----------------|---|

Port

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

Power

| | |
|-------------------|---|
| Power Supply | 12 VDC (±30%); PoE (802.3af); ePoE |
| Power Consumption | Basic: 2.5 W (12 VDC); 3.2 W (PoE) Max. (max. stream + IR LED + focus): 9.4 W (12 VDC); 10.3 W (PoE) |

Environment

| | |
|-----------------------|--------------------------------------|
| Operating Temperature | –30 °C to +60 °C (–22 °F to +140 °F) |
| Operating Humidity | ≤ 95% |
| Storage Temperature | –40 °C to +60 °C (–40 °F to +140 °F) |
| Protection | IP67; IK10 |

Structure

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|--------------------|---|
| Casing | Metal + plastic |
| Product Dimensions | 273.2 mm × 95 mm × 95 mm (10.76" × 3.74" × 3.74") (L × W × H) |
| Net Weight | 1110 g (2.45 lb) |
| Gross Weight | 1510 g (3.33 lb) |