- 8-MP 1/2.7" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 8 MP (3840 ×2160)@25/30 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in warm light and IR LED; the max. IR illumination distance is 30 m and warm light distance is 30 m.
- ROI, SMART H.264+/H.265+, AI H.264/H.265, flexible coding, applicable to various bandwidth and storage environments.
- Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes.
- Intelligent monitoring: Intrusion, tripwire (the two function support the classification and accurate detection of vehicle and human).
- Abnormality detection: Motion detection, privacy masking, scene changing, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection.
- Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card; built-in dual Mic; 1-ch speaker; support two-way talk.
- 12 VDC/PoE power supply.
- IP67 protection.
- Sound and light alarm (red and blue lights).
- SMD 4.0.
- Supports AI SSA and one-tap arming and disarming.
- SMD area can be set in warm light areas that support triggering alarms.

## Functions

### Siren and Light Active Deterrence
Siren and light active deterrence network camera supports the light alarm and voice alarm when perimeter event occurs, to realize the deterrence and effective intervention. The camera is built in multiple voices for selection, and supports customized voice importing.

### SMD 4.0
Smart Motion Detection technology works with intelligent algorithms to classify targets that trigger motion detection alarms. It filters out objects that are not targets, such as small and large animals, to avoid triggering false alarms. With an AI NVR, Quick Pick technology becomes available, allowing you to easily search for and pick out human and vehicle targets from SMD event videos, prioritizing the highest matches.

### Smart Dual Light
Smart Dual Light technology adopts smart algorithm to detect targets. Usually, the IR illuminator is on at night; when the target appears in the monitoring area, the white light is on, and the camera records the full-color video and information of key events. That is, the camera links snapshot and video with full-color image. When the target is out of the monitoring area, the white light is off and the IR illuminator is on, which reduces light pollution efficiently.

### One-tap Disarming
One-tap Disarming function, which is convenient and easy for operation, is the switch for event linkage. Customers can close and recover event linkage through mobile App, which meets multi-scenarios needs.

### Cyber Security
Network cameras employ a series of security technologies, including security authentication and authorization, access control protocols, trusted protection, encrypted transmission and encrypted storage. These technologies improve the camera's defense against external cyber threats and prevent malicious programs from compromising the device.

### Protection (IP67, 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 normally after soaking in 1 m deep water for 30 minutes.
Wide voltage: The camera allows ±30% (for some power supplies) input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

## Technical Specification

### Camera

| | |
|---|---|
| Image Sensor | 1/2.7" CMOS |
| Max. Resolution | 3840 (H) × 2160 (V) |
| ROM | 256 MB |
| RAM | 2 G |
| Scanning System | Progressive |
| Electronic Shutter Speed | Auto/Manual 1/3 s–1/100,000 s |
| Min. Illumination | 0.004 lux@F1.0 (Color, 30 IRE)<br>0.0004 lux@F1.0 (B/W, 30 IRE)<br>0 lux (illuminator on) |
| S/N Ratio | >56 dB |
| Illumination Distance | Up to 30 m (98.43 ft) (IR)<br>Up to 30 m (98.43 ft) (Warm light) |
| Illuminator On/Off Control | Auto;Manual |
| Illuminator Number | 1 (IR LED); 1 (Warm light) |
| Angle Adjustment | Pan: 0°–360°<br>Tilt: 0°–78°<br>Rotation: 0°–360° |

### Lens

| | |
|---|---|
| Lens Type | Fixed-focal |
| Lens Mount | M12 |
| Focal Length | 2.8 mm |
| Max. Aperture | F1.0 |
| Field of View | 2.8 mm: H: 106°; V: 55°; D: 125° |
| Iris Control | Fixed |
| Close Focus Distance | 2.8 mm: 1.5 m (4.92 ft) |

| DORI Distance | Lens | Detect | Observe | Recognize | Identify |
|---|---|---|---|---|---|
| | 2.8 mm | 66.0 m (216.54 ft) | 26.4 m (86.61 ft) | 13.2 m (43.31 ft) | 6.6 m (21.65 ft) |

### Intelligence

| | |
|---|---|
| IVS (Perimeter Protection) | Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human) |
| SMD | SMD 4.0 |
| AcuPick | Uses deep learning algorithms and works with back-end devices to accurately match targets, such as people and motor vehicles, and search through live and recorded videos to quickly locate targets. |
| AI SSA | Adopt deep learning algorithms to adjust the parameters of the image to suit the conditions. |

| | |
|---|---|
| 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 (Compression rate ≥25%)<br>AI H.264 (Compression rate ≥25%) |
| Video Frame Rate | Main stream: 3840 × 2160 @(1 fps–25/30 fps)<br>Sub stream: 704 × 576@(1–25 fps)/704 × 480@(1–30 fps)<br>Third stream: 1920 × 1080@(1–25/30 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 | 3 streams |
| Resolution | 8M (3840 × 2160); 6M (3072 × 2048); 5M (3072 × 1728/2592 × 1944); 4M (2688 × 1520/2560 × 1440); 3M (2048 × 1536/2304 × 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/ABR |
| Video Bit Rate | H.264: 3 kbps–16384 kbps;<br>H.265: 3 kbps–16384 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 |
| Noise Reduction | 3D NR |
| Motion Detection | OFF/ON (4 areas, rectangular) |
| Region of Interest (RoI) | Yes (4 areas) |
| Smart Illumination | Yes |
| Defog | Yes |
| Image Rotation | 0°/90°/180°/270° (Support 90°/270° with 2688 × 1520 resolution and lower) |
| Mirror | Yes |
| Privacy Masking | 4 areas |
| LDC | Yes |

### Audio

| | |
|---|---|
| Built-in MIC | Yes |
| Built-in Speaker | Yes |
| Audio Compression | PCM; G.711a; G.711Mu; 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; scene changing; audio detection; intensity change; voltage detection; external alarm; SMD; security exception |

## Network

| | |
|---|---|
| Network Port | RJ-45 (10/100 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; PPPoE; SNMP; P2P |
| Interoperability | ONVIF (Profile S; Profile G;Profile T); CGI |
| User/Host | 20 (Total bandwidth: 64 M) |
| Storage | FTP;SFTP; Micro SD card (support max. 256 GB); NAS |
| Browser | IE: IE 9/11<br>Chrome<br>Firefox |
| Management Software | Smart PSS Lite; DSS; DMSS |
| Mobile Client | iOS;Android |
| Cyber Security | Video encrypton;Firmware encrypton;Confguraton encrypton;Digest;WSSE;Account lockout;Security logs;IP/MAC fltering;Generaton and importng of X.509 ce rtfcaton;syslog;HTTPS;802.1x;Trusted boot;Trusted executon;Trusted upgrade |

## Certification

| | |
|---|---|
| Certifications | CE-LVD: EN 62368-1;<br>CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU |

## Port

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

## Power

| | |
|---|---|
| Power Supply | 12 VDC; PoE |
| Power Consumption | Basic: 4.5 W (12 VDC); 5.8 W (PoE)<br>Max. (H.265+WDR+ warm light+siren and light active deterrence + intelligence on): 8.6 W (12 VDC); 10.1 W (PoE) |

## Environment

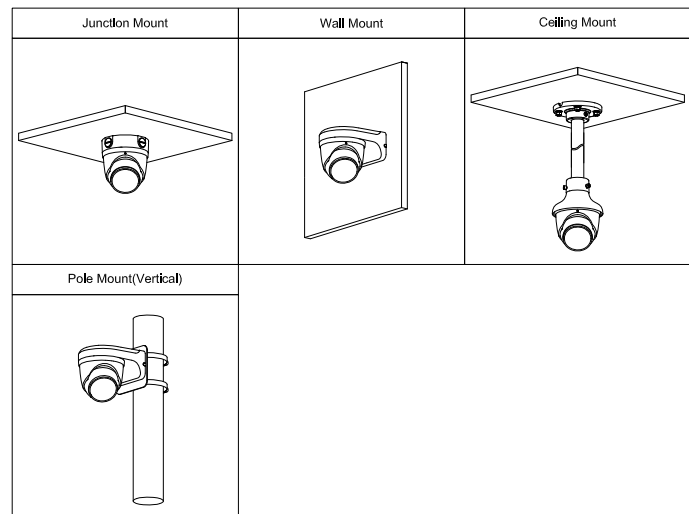| | |
|---|---|
| Operating Temperature | −40 °C to +60 °C (−40 °F to +140 °F) |
| Operating Humidity | ≤95% |
| Protection | IP67 |

## Structure

| | |
|---|---|
| Casing Material | Metal |
| Product Dimensions | Φ122.0 mm × 110.9 mm (4.80" × Φ4.37") |
| Net Weight | 0.75 kg (1.65 lb) |
| Gross Weight | 0.92 kg (2.03 lb) |

## Ordering Information

| Type | Model | Description |
|---|---|---|
| 8MP Camera | TDOEIS830LIR2A-AI-PD | 8MP Smart Dual Light Active Deterrence Fixed-focal Eyeball Network Camera |
| Accessories (Optional) | PFA137 | Junction Box |
| | PFB220C | Ceiling Mount Bracket |
| | PFA152-E | Pole Mount Bracket |

## Accessories

Optional:



PFA137
Junction Box

PFB220C
Ceiling Mount Bracket

PFA152-E
Pole Mount Bracket



Junction Mount

Wall Mount

Ceiling Mount

Pole Mount(Vertical)

## Dimensions (mm[inch])



110.9 [4.37]

3−⌀4.5 [⌀0.18]

⌀84.0 [⌀3.31]

⌀122.0 [⌀4.80]