

TDOEIA840M

8MP Lite IR Vari-focal Eyeball Network Camera



- 8MP, 1/2.7" CMOS image sensor, low illuminance, high image definition
- Outputs max. 8MP (3840 × 2160) @15 fps, and supports 2688×1520 (2688 × 1520) @25/30 fps
- H.265 codec, high compression rate, ultra-low bit rate
- Built-in IR LED, max IR distance: 40 m
- ROI, SMART 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 detection: Intrusion, tripwire
- Abnormality detection: Motion detection, video tampering, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, voltage detection
- Supports max. 256 GB Micro SD card
- 12V DC/PoE power supply
- IP67 protection



System Overview

With upgraded H.265 encoding technology, the TDOEIA840M network camera has efficient video encoding capacity, which saves bandwidth and storage space. This camera adopts the latest starlight technology and displays better color image in the condition of low illumination. It supports SD card storage, dust-proof function, waterproof function and vandal-proof function, complying to the standards of IP67 (Supported by some select models).

Functions

Smart H.265+ & Smart H.264+

With advanced scene-adaptive rate control algorithm, smart encoding technology realizes the higher encoding efficiency than H.265 and H.264, provides high-quality video, and reduces the cost of storage and transmission.

WDR

With advanced Wide Dynamic Range (WDR) technology, the TDOEIA840M network camera provides clear details in the environment of strong brightness contrast. The bright and dark area can get clear video even in high brightness environment or with backlight shadow.

Starlight

With advanced image processing technology and optical technology, Starlight technology can provide clear colorful video in the environment of low illuminance. It widely applies to various environments of low illuminance.

IVS

With advanced video algorithm, IVS technology supports intelligent functions, such as tripwire and intrusion.

Cyber Security

TDOEIA840M network camera is equipped with a series of key security technologies, such as security authentication and authorization, access control, trusted protection, encrypted transmission, and encrypted storage, which improve its security defense and data protection, and prevent malicious programs from invading 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 normal after soaking in 1 m deep water for 30 minutes.

Wide voltage: The camera allows $\pm 30\%$ (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" 8Megapixel progressive CMOS |
| Max. Resolution | 3840 (H) × 2160 (V) |
| ROM | 128 MB |
| RAM | 256 MB |
| Scanning System | Progressive |
| Electronic Shutter Speed | Auto/Manual 1/3 s–1/100,000 s |
| Min. Illumination | 0.008 Lux@F1.5 |
| S/N Ratio | >56 dB |
| Illumination Distance | 40 m (131.23 ft) |
| Illuminator On/Off Control | Auto/Manual |
| Illuminator Number | 2 (IR LED) |
| Pan/Tilt/Rotation Range | Pan: 0°–360° Tilt: 0°–78° Rotation: 0°–360° |

Lens

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|----------------------|---|----------------------|----------------------|--------------------|--------------------|
| Lens Type | Motorized vari-focal | | | | |
| Mount Type | φ14 | | | | |
| Focal Length | 2.7 mm–13.5 mm | | | | |
| Max. Aperture | F1.5 | | | | |
| Field of View | Horizontal: 113°–31° Vertical: 58°–17° Diagonal: 138°–36° | | | | |
| Iris Type | Fixed | | | | |
| Close Focus Distance | 0.8 m–0.8 m (2.62 ft–2.62 ft) | | | | |
| DORI Distance | Lens | Detect | Observe | Recognize | Identify |
| | W | 85.3 m (279.9 ft) | 34.1 m (111.9 ft) | 17 m (55.8 ft) | 8.5 m (27.9 ft) |
| | T | 280 m (918.6 ft) | 112 m (367.5 ft) | 56 m (183.7 ft) | 28 m (91.9 ft) |

Smart Event

| | |
|-----|---------------------|
| IVS | Tripwire; intrusion |
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Video

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|-------------------|--|
| Video Compression | H.265; H.264; H.264B; MJPEG (only supported by the sub stream) |
| Smart Codec | Smart H.265+ / Smart H.264+ |
| Video Frame Rate | Main stream: 3840 × 2160 (1 fps–15 fps) 2688 × 1520 (1 fps–25/30 fps) Sub stream: 704 × 576 (1 fps–25 fps) 704 × 480 (1 fps–30 fps) |
| Stream Capability | 2 streams |

| | |
|-------------------------|---|
| Resolution | 3840 × 2160 (3840 × 2160); 3072 × 2048 (3072 × 2048); 3072 × 1728 (3072 × 1728); 2592 × 1944 (2592 × 1944); 2688 × 1520 (2688 × 1520); 3M (2048 × 1536); 2304 × 1296 (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–8192 kbps H.265: 12 kbps–8192 kbps |
| Day/Night | Auto(ICR)/Color/B/W |
| BLC | Yes |
| HLC | Yes |
| WDR | 120 dB |
| 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) |
| Region of Interest(Rol) | Yes (4 areas) |
| Smart Illumination | Yes |
| Image Rotation | 0°/90°/180°/270° (Supports 90°/270° with 3840 × 2160 resolution and lower.) |
| Mirror | Yes |
| Privacy Masking | 4 areas |

Alarm

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|-------------|--|
| Alarm Event | No SD card; SD card full; SD card error; network disconnection; IP conflict; motion detection; video tampering; tripwire; intrusion; illegal access; voltage detection; safety exception |
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Network

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|---------------------|---|
| Network | RJ-45 (10/100 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 |
| 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; Bonjour |
| Interoperability | ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone; Genetec |
| User/Host | 20 |
| Storage | FTP; SFTP; Micro SD Card (support max. 256 GB); NAS |
| Browser | IE Chrome Firefox |
| Management Software | Toughdog Viewer Professional; TD-SMS |
| Mobile Phone | iOS; Android |

Certification

| | |
|----------------|--|
| Certifications | CE-LVD: EN62368-1 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 |
|----------------|--|

Power

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|-------------------|----------------------|
| Power Supply | 12V DC/PoE (802.3af) |
| Power Consumption | < 7.6W |

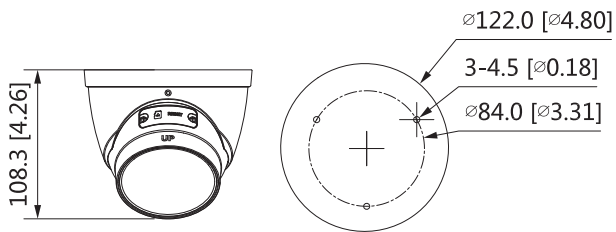
Environment

| | |
|----------------------|---|
| Operating Conditions | -30°C to +60°C (-22°F to +140°F)/less than ≤ 95% RH |
| Storage Temperature | -40°C to +60°C (-40°F to +140°F) |
| Protection | IP67 |

Structure

| | |
|--------------|-------------------------------------|
| Casing | Metal |
| Dimensions | 108.3 mm × Φ122 mm (4.26" × Φ1.80") |
| Net Weight | 0.69 kg (1.52 lb) |
| Gross Weight | 0.88 kg (1.94 lb) |

Dimensions (mm[inch])



Accessories

Optional:



PFA130-E
Junction Box



PFB203W
Wall Mount



PFA106
Mount Adapter



PFB220C
Ceiling Mount



PFA152-E
Pole Mount

| Junction Mount | Wall Mount | Ceiling Mount | Pole Mount |
|----------------|------------|----------------|------------------|
| PFA130-E | PFB203W | PFA106+PFB220C | PFB203W+PFA152-E |
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