

MTT4097

4 MP Dual Lens Fixed-focal Eyeball Montavue Full-color Network Camera



System Overview

With starlight solution and deep learning algorithm, Montavue 5 Series network camera 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 andal-proof function, complying with the standards of IP67 and IK10 (Supported by some select models)

Functions

Face Detection

Montavue 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.

Perimeter Protection

With deep learning algorithm, Montavue 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.

Multi-spectrum Fusion

Montavue Multi-Spectrum Fusion technology extracts the details and brightness of the visible spectrum and infrared spectrum to make the fusion brightness close to the visible light brightness, so that the camera provides a better image.

- Dual AI sensors with multi-spectral imaging technology that produces colorful images in low illumination conditions.
- Outputs max. 4 MP (2688 × 1520)@25/30 fps.
- Built-in warm light/IR LED, with a maximum illumination distance of 50 m.
- ROI, SMART H.264+/H.265+, AI H.264/H.265, flexible coding, applicable to various bandwidth and storage environments.
- Rotation mode, DWDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes.
- Intelligent monitoring: Intrusion, tripwire, fast moving (the three functions support the classification and accurate detection of vehicle and human); abandoned object, missing object, loitering detection, people gathering, and parking detection.
- Face detection: Track, snapshot, snapshot optimization, optimal face snapshot upload, face enhancement, and face exposure.
- People counting: Queue management, people counting in area, entered/exited people counting, and generating and exporting report (day/month/year).
- Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card; built-in Mic and speaker, support two-way talk.
- 12 VDC/PoE power supply.
- IP67 protection.



Full-color

With high-performance sensor and large aperture lens, Montavue Full-color technology can display clear colorful image in the environment of ultra-low illuminance. With this photosensitivity technology, the camera can capture more available light, and display more colorful image details.

Cyber Security

Montavue 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 works 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

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| Image Sensor | 1/1.8" + 1/1.8" CMOS |
| Pixel | 4MP |
| Max. Resolution | 2688 (H) × 1520 (V) |
| ROM | 128 MB |
| RAM | 1 GB |
| Electronic Shutter Speed | Auto/Manual 1/3 s–1/100,000 s |
| Scanning System | Progressive |
| Min. Illumination | 0.0002 lux @F1.0 |
| Illumination Distance | 50 m (164.04 ft) |
| Illuminator On/Off Control | Auto; manual |
| Illuminator Number | 2 (IR light); 2 (warm light) |
| Pan/Tilt/Rotation Range | Pan: 0°–360° Tilt: 0°–78° Rotation: 0°–360° |

Lens

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|----------------------|---|
| Lens Type | Fixed-focal |
| Lens Mount | M16 |
| Focal Length | 2.8 mm; 3.6 mm; 6 mm |
| Max. Aperture | F1.0 |
| Field of View | 2.8 mm: H: 95°; V: 52°; D: 114° 32.8 mm: Horizontal: 97°; Vertical: 48°; Diagonal: 115° 3.6 mm: Horizontal: 75°; Vertical: 39°; Diagonal: 87° 6 mm: Horizontal: 47°; Vertical: 25°; Diagonal: 56° |
| Iris Control | Fixed |
| Close Focus Distance | 2.8 mm: 4 m (13.1 ft) 3.6 mm: 5 m (16.4 ft) 6 mm: 6 m (19.7 ft) |

Intelligence

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| 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 |

Video

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| 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+ |
| Video Frame Rate | Main stream: 2688 × 1520@(1–25/30 fps) Sub stream: 704 × 576@(1–25 fps)/704 × 480@(1–30 fps) Third stream: 1920 × 1080@(1–25/30 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. |

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| Stream Capability | 3 streams |
| Resolution | 4M (2688 × 1520); 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240) |
| Resolution | 4M |
| Bit Rate Control | CBR/VBR |
| Video Bit Rate | H.264: 32 kbps–8192 kbps H.265: 19 kbps–8192 kbps |
| Day/Night | Color/B/W |
| BLC | Yes |
| WDR | DWDR |
| HLC | 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) |
| Region of Interest (Roi) | Yes (4 areas) |
| Image Rotation | 0°/90°/180°/270° (Support 90°/270° with 1080p resolution and lower) |
| Mirror | Yes |
| Privacy Masking | 4 Areas |

Audio

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| Built-in MIC | Yes |
| 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; tripwire; intrusion; fast moving; abandoned object; missing object; loitering detection; people gathering; parking detection; scene changing; audio detection; voltage detection; face detection; people counting in area; stay detection; people counting; people number error detection; security exception; defocus detection; people number alarm; queue time alarm |
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Network

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| Network Port | RJ-45 (10/100 Base-T) |
| SDK and API | Yes |
| Network Protocol | IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; SMTP; FTP; DHCP; DNS; NTP; Multicast; DDNS |
| Interoperability | ONVIF (Profile S/Profile G/Profile T); CGI; Milestone; Genetec; P2P |
| User/Host | 6 (Total bandwidth: 36 M) |
| Storage | FTP; SFTP; Micro SD card (support max. 256 G); NAS |
| Browser | IE: IE8, IE9, IE11 Chrome Firefox |
| Management Software | Smart PSS; DSS; DMSS |
| Mobile Client | iOS; Android |

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| Cyber Security | Configuration encryption; Trusted execution; Digest; Security logs; WSSE; Account lockout; syslog; Video encryption; 802.1x; IP/MAC filtering; HTTPS; Trusted upgrade; Trusted boot; Generation and importing of X.509 certification |
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Certification

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

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| Power Supply | 12 VDC ($\pm 30\%$); PoE (802.3af); ePoE |
| Power Consumption | Basic: 3.9 W (12 VDC); 4.6 W (PoE) Max. (H.265+IR and Warm light on): 9.3 W (12 VDC); 10.5 W (PoE) |

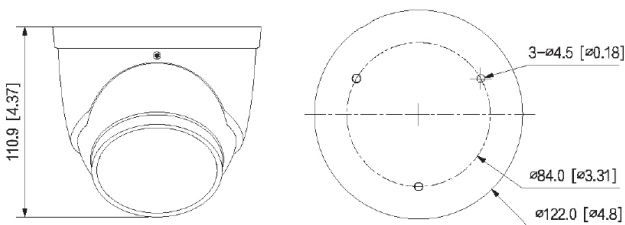
Environment

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|-----------------------|--------------------------------------|
| Operating Temperature | -40 °C to +60 °C (-40 °F to +140 °F) |
| Operating Humidity | $\leq 95\%$ |
| Storage Temperature | -40 °C to +60 °C (-40 °F to +140 °F) |
| Protection | IP67 |

Structure

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| Casing Material | Metal |
| Product Dimensions | $\Phi 122$ mm x 110.9mm ($\Phi 4.80$ " x 4.37") |
| Net Weight | 0.75 kg (1.65 lb) |
| Gross Weight | 0.94 kg (2.07 lb) |

Dimensions (mm[inch])



Accessories

| Type | Model | Description |
|------------------------|-----------|--|
| 4MP camera | MTT4097 | 4MP Smart Dual Light Fixed-focal Eyeball Montavue Network Camera |
| Accessories (Optional) | PFA130-E | Junction Box |
| | PFB205W-E | Wall Mount Bracket |
| | PFA152-E | Pole Mount Bracket |
| | PFA109 | Mount Adapter |
| | PFB220C | Ceiling Mount Bracket |
| | PFM321D | 12 VDC 1A Power Adapter |
| | PFM900-E | Integrated Mount Tester |
| | TF-P100 | MicroSD Memory Card |