MTD8108
8MP IR Fixed-focal Dome Montavue Network Camera

System Overview

Montavue 8108 Series Network Camera greatly saves on bandwidth and storage space through its AI Coding technology. Driven by its advanced deep learning algorithms, the camera supports intelligent functions such as perimeter protection, smart motion detection (SMD), Quick Pick, and AI SSA (AI Scene Self-adaptation), making it easy and convenient to use. Starlight technology and its large aperture lens also allow the camera to produce clear, vivid images even in poor lighting conditions.

Functions

SMD 4.0
Montavue 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.

AI SSA
Montavue AI Scene Self-adaptation (AI SSA) adopts deep learning algorithms to detect environmental conditions, such as rain, fog, backlight, low light and flicker, to adjust the parameters of the image to suit the conditions, ensuring that clear images are always produced.

Smart H.265+ & Smart H.264+
With advanced scene-adaptive rate control algorithm, Montavue 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.

- 8-MP 1/2.8" CMOS image sensor, excellent low luminance performance and high definition of images.
- Outputs max. 8 MP (3840 × 2160) @25/30 fps.
- H.265 codec allows high compression ratio and ultra-low bit rate.
- Built-in IR LED, max. IR distance: 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 detection: Intrusion, tripwire (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 (Only - AS supports); audio: 1 in, 1 out (Only - AS supports); max. 256 G Micro SD card. built-in Mic.
- 12 VDC/PoE power supply facilitates installation.
- IP67, IK10 protection.
- SMD 4.0, AI SSA.

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) are largely reduced.

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.
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 outdoor environment with instable voltage.

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 comprising the device.technologies improve the camera's defense against external cyber threats and prevent malicious programs from comprising the device.

MTD8108

Technical Specification

Camera

Image Sensor	1/2.8" CMOS
Max. Resolution	3840 (H) × 2160 (V)
ROM	128 MB
RAM	1 GB
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Scanning System	Progressive
Min. Illumination	0.007 lux@F1.4 (Color, 30I RE) 0.0007 lux@ F1.4 (B/W, 30 IRE) 0 lux (Illuminator on)
S/N Ratio	> 56 dB
Illumination Distance	30 m (98.42 ft)
Illuminator On/Off Control	Auto; manual
Illuminator Number	3 (IR LED)
Angle Adjustment	Pan: 0°–355°; Tilt: 0°–75°; Rotation: 0°–355°

Lens

Lens Type	Fixed-focal
Lens Mount	M12
Focal Length	2.8 mm
Max. Aperture	F1.4
Field of View	2.8 mm: Horizontal:107°; vertical: 56°; diagonal: 127°
Iris Control	Fixed
Close Focus Distance	2.8 mm: 1.5 m (4.9 ft)

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8mm	87.7 m (287.73 ft)	35.1 m (115.16 ft)	17.5 m (57.41 ft)	8.8 m (28.87 ft)

Intelligence

IVS (Perimeter Protection)	Tripwire, intrusion (support the classification and accurate detection of vehicle and human)
AI SSA	Yes
Quick Pick	With AI NVR, quickly pick up the human/vehicle targets that users are interested in from SMD events
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: 3840 × 2160 @ (1–25/30) fps Sub stream 1: 704 × 576 @ (1–25 fps)/704 × 480 @ (1–30 fps) Sub stream 2: 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
Stream Capability	3 streams
Resolution	8M (3840 × 2160); 6M (3072 × 2048); 5M (3072 × 1728/2592 × 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); CIF (352 × 288/352 × 240); VGA (640 × 480)
Bit Rate Control	CBR/VBR
Video Bit Rate	H.264: 3 kbps–8192 kbps H.265: 3 kbps–8192 kbps
Day/Night	Auto(ICR)/Color/B/W
BLC	Yes
WDR	120db
HLC	Yes
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)
Defog	Yes
AFSA	Yes
Image Rotation	0°/90°/180°/270° (support 90°/270° with 2688×1520 resolution and lower)
Mirror	Yes
Privacy Masking	4 areas

Audio

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

Alarm

Alarm Event	-AS: No SD card; SD card full; SD card error; service life warning (only supported by Montavue card); network disconnection; IP conflict; illegal access; motion detection; video tampering; intrusion; tripwire; scene changing; audio detection; voltage detection; external alarm; SMD; safety exception -S: No SD card; SD card full; SD card error; service life warning (only supported by Montavue card); network disconnection; IP conflict; illegal access; motion detection; video tampering; intrusion; tripwire; scene changing; audio detection; voltage detection; SMD; safety exception

MTD8108

Network

Network Port	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; SAMBA; PPPoE; SNMP
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone; Genetec
User/Host	20 (Total bandwidth: 64 M)
Storage	FTP; SFTP; Micro SD card (support max. 256 G); NAS
Browser	IE: IE11 Chrome Firefox
Management Software	MontavueGo
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: UL62368-1 & CAN/CSA C22.2 No. 62368-1-14

Port

Audio Input	1 channel (RCA port) (Only - AS supports)
Audio Output	1 channel (RCA port) (Only - AS supports)
Alarm Input	1 channel in: 5 mA 3-5 VDC (Only - AS supports)
Alarm Output	1 channel out: 300 mA 12 VDC (Only - AS supports)

Power

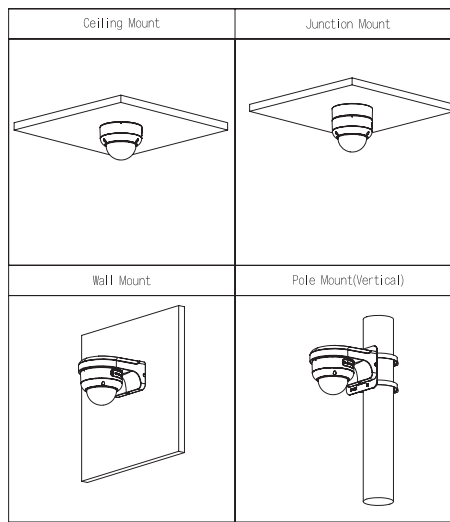|	
Power Supply	12 VDC/PoE (802.3af)
Power Consumption	Basic: 4 W (12 VDC); 4.9 W (PoE) Max. (WDR + IR intensity + Intelligence): 8.5 W (12 VDC); 9.7 W (PoE)

Environment

Operating Temperature	−40°C to +60°C (−40°F to 140°F) /Less than 95% RH
Storage Temperature	−40°C to +60°C (−40°F to 140°F)
Protection Grade	IP67; IK10

Structure

Casing Material	Metal
Product Dimensions	89.1 mm × ⬚111.7 mm (3.51" × ⬚4.40")
Net Weight	516 g (1.14 lb)
Gross Weight	670 g (1.48 lb)

Accessories

Type	Model	Description
8MP camera	MTD8108	8MP IR Fixed-focal Dome Montavue Network Camera
Accessories (Optional)	MAM136	Junction Box Bracket
	MAM203W	Wall Mount
	MAM152-E	Pole mount

Dimensions (mm[inch])