MTZ4250-IR-AISMD3-AT
4MP 25x Starlight IR Montavue Network PTZ Camera

- 1/2.8" 4Megapixel STARVIS™ CMOS.
- 25x optical zoom.
- Starlight technology.
- Max. 25/30fps@4MP.
- IR distance up to 100m.
- Auto-tracking.
- Perimeter protection.
- Face detection.
- SMD 3.0.
- IP66.

4Mp	Starlight	WDR	Perimeter Protection	Auto Tracking	IP66

System Overview

With its powerful optical zoom, and accurate pan and tilt capabilities, the PTZ camera provides an all-in-one solution for long distance video surveillance of outdoor scenes. Together with infrared illumination and Starlight Technology, the camera is a great solution for dark, low light conditions. The series combines a day and night mechanical IR cut filter to produce high quality images in variable lighting conditions during the day.

Functions

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

Wide Dynamic Range
The camera produces vivid images, even in high-contrast lighting conditions, by using industry-leading wide dynamic range (WDR) technology. For scenes that quickly alternate between bright and low lighting, WDR adjusts to fully capture both the bright and dark areas of a scene, producing superior quality videos.

Perimeter Protection
Automatically filters out false alarms caused by animals, rustling leaves, bright lights, and more, and uses secondary recognition during target detection to improve alarm accuracy.

Auto-tracking
This feature controls the pan/tilt/zoom actions of the camera to automatically track an object in motion and to keep it in the scene. The tracking action can be triggered manually or automatically by defined rules. Once a rule is triggered, the camera can zoom in and track the defined target automatically.

PFA Technology
PFA technology has introduced new methods of judgment that ensure the accuracy and predictability of the direction of subject distance adjustment. The result is a set of advanced focusing algorithms that ensure image clarity when zooming and that shorten focus time. This makes the camera highly advanced in its functions, substantially improving the quality of your experience.

SMD
Empowered by Deep-Learning Algorithms, Montavue SMD filters out motion detection alarms triggered by targets that are not a concern. It quickly recognizes humans and vehicles, triggering alarms when an intrusion occurs.

Environment (−40 °C to +65 °C, IP66)
Developed to operate in extreme conditions, the camera can function in temperatures ranging from −40 °C to +65 °C (−40 °F to +149 °F) at 95% humidity. It was subjected to rigorous dust and water immersion tests, gaining its IP66 Ingress Protection certification, making it suitable for demanding outdoor applications.

Technical Specification

Camera

Image Sensor	1/2.8" CMOS
Pixel	4MP
Max. Resolution	2560 × 1440
ROM	128 MB
RAM	512 MB
Electronic Shutter Speed	1/1 s–1/30,000 s
Scanning System	Progressive
Min. Illumination	Color: 0.005lux@ F1.6 B/W: 0.0005lux@F1.6 0Lux (IR on)
Illumination Distance	100 m (328.08 ft) (IR)
Illuminator On/Off Control	Zoom Prio; Manual; Auto; Off
Illuminator Number	6 (IR)

Lens

Focal Length	5 mm–125 mm			
Max. Aperture	F1.6–F3.6			
Field of View	H: 51.9°–3.0° V: 39.7°–2.2° D: 63.1°–3.7°			
Optical Zoom	25×			
Focus Control	Auto; semi-auto; manual			
Close Focus Distance	0.5 m–5 m (1.64 ft–16.40ft)			
Iris Control	Auto; manual; fixed			
DORI Distance	Detect	Observe	Recognize	Identify
	2500 m (8202.10 ft)	987.5 m (3239.83 ft)	500 m (1640.42 ft)	250 m (820.21 ft)

PTZ

Pan/Tilt Range	Pan: 0° to 360° endless Tilt: −5° to +90°, auto flip 180°
Manual Control Speed	Pan: 0.1°/s–240°/s Tilt: 0.1°/s–160°/s
Preset Speed	Pan: 240°/s; Tilt: 160°/s
Presets	300
Tour	8 (up to 32 presets per tour)
Pattern	5
Scan	5
Power-off Memory	Yes
Idle Motion	Pattern; Preset; Scan; Tour
PTZ Protocol	DH-SD

Intelligence

IVS (Perimeter Protection)	Tripwire; intrusion; crossing fence detection; loitering detection; abandoned/missing object; fast moving; parking detection; people gathering; vehicle/human alarm classification; linkage tracking
Face Detection	Supports face detection, face track box, capturing pictures, face enhancement; Supports face cutout: Face, one-inch photo. Capturing strategies include real-time capturing and quality first

SMD	Yes
Auto Tracking	Yes

Video

Video Compression	H.264H; H.264B; Smart H.265+; H.264; H.265; MJPEG(Sub Stream); Smart H.264+
Streaming Capability	3 Streams
Resolution	4M (2560 × 1440); 3M (2304 × 1296); 1080P (1920 × 1080); 1.3M (1280 × 960); 720P (1280 × 720); D1 (704 × 576); VGA (640 × 480); CIF(352 × 288)
Video Frame Rate	Main stream: 4M/3M/1080p/1.3M/720p @ (1–25/30 fps) Sub stream 1: D1/VGA/CIF@ (1–25/30 fps) Sub stream 2: 720p/CIF @(1–25/30 fps)
Bit Rate Control	CBR/VBR
Video Bit Rate	H.264: 96Kbps - 14848Kbps H.265: 38Kbps - 8960Kbps
Day/Night	Auto (ICR)/Color/B/W
BLC	Yes
WDR	120 dB
HLC	Yes
White Balance	Auto; indoor; outdoor; ATW; manual; sodium lamp; natural light; street lamp
Gain Control	Auto/Manual
Noise Reduction	2D NR; 3D NR
Motion Detection	Yes
Region of Interest (RoI)	Yes
Image Stabilization	Electronic (EIS)
Defog	Electronic
Digital Zoom	16x
Image Rotation	180°
Privacy Masking	Up to 24 areas can be set, with up to 8 areas in the same view
S/N Ratio	≥ 55 dB

Audio

Audio Compression	G.711a; G.711Mu; G.726; MPEG2-Layer2; G722.1; PCM; AAC

Network

Network Port	RJ-45 (10/100 Base-T)
Network Protocol	FTP; RTMP; IPv6; Bonjour; IPv4; DNS; RTCP; PPPoE; NTP; RTP; 802.1x; HTTPS; SNMP; TCP/IP; DDNS; UPnP; NFS; ICMP; UDP; IGMP; HTTP; SSL; DHCP; SMTP; Qos; RTSP; ARP; ;SAMBA
Interoperability	CGI; SDK; ONVIF (Profile S&G&T); P2P
Streaming Method	Unicast/Multicast
User/Host	20 (total bandwidth: 64 M)
Storage	Micro SD card (512 GB); FTP/SFTP; NAS
Browser	IE 9 and later versions Chrome 41 and later versions Firefox 50 and later versions iOS 10 and later versions

Management Software	MontavueGo
Mobile Client	iOS; Android

Certification

Certifications	CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4-2014

Port

Audio Input	1 channel (LINE IN, bare wire)
Audio Output	1 channel (LINE OUT, bare wire)
Alarm Linkage	Capture; preset; tour; pattern; recordings on SD card; alarm digital input; send email
Alarm Event	Motion/Tampering detection; audio detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection
Alarm I/O	2/1
Audio I/O	1/1

Power

Power Supply	12 VDC/2 A ± 10% (included) PoE+ (802.3at)
Power Consumption	Basic: 9.5 W Max.: 21.5 W (illuminator on + fan on + PTZ)

Environment

Operating Temperature	−40 °C to +65 °C (−40 °F to +149 °F)
Operating Humidity	≤ 95%
Protection	IP66, TVS 6000 V lightning proof; surge protection; voltage transient protection

Structure

Product Dimensions	170.4 mm × ⌀171.1 mm (6.71" × ⌀6.74")
Net Weight	2.5 kg (5.51 lb)
Gross Weight	3.2 kg (7.05 lb)

Accessories

Type	Model	Description
4M Montavue PTZ Camera	MTZ4250-IR-AISMD3-AT	4MP 25x Starlight IR Montavue Network PTZ Camera
Accessories (Optional)	DC 12 V/2 A	Power Adapter
	MAM101	Mount Adapter
	MAM303W	Wall Mount Bracket
	MAM300C	Ceiling Mount Bracket
	MAM150	Pole Mount Bracket
	MAM151	Corner Mount Bracket
	MAM303S	Parapet Mount Bracket

Dimensions (mm[inch])