

MS-7TPC6457VM-F

Bi-spectrum Vehicle-Mounted Network Camera



Key Features

- Bi-Spectrum: 640 × 512 thermal and 4 MP visible sensors
- 12 μm VOx uncooled thermal sensor, NETD < 20 mK
- 7mm fixed thermal lens; 2.8mm visible lens
- Supports human and vehicle detection, smoking, smoke and flame detection, and fire spot detection.
- Intelligent analytics: intrusion, smart motion detection, single/double line crossing, loitering, wrong-way, enter/leave area detection, and people counting
- Support 3 temperature measurement rule types (spot, line, area)
- Temperature monitoring & alarm: -20 °C to 150 °C; accuracy: ±2 °C / ±2%.
- Built-in microphone and 1ch audio output
- Support 12VDC/PoE power supply
- IP66

Specifications

Camera		
Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays	1/1.8" CMOS
Max Resolution	Sensor is 640×512, Image can be scaled up to 1920×1080	4MP, 2688 (H)×1520 (V)
Pixel Pitch	12 μm	N/A
Spectral Range	8 to 14 μm	N/A
NETD	≤ 20mK	N/A
Shutter Speed	N/A	1/5 to 1/20,000s
Min Illumination	N/A	Color: 0.005 Lux @(F1.6, AGC ON), B/W: 0.001 Lux @(F1.6, AGC ON)
Day & Night	N/A	Auto (ICR)
Lens		
Lens Type	Fixed lens	Fixed lens
Focal Length	7 mm	2.8 mm
Max. Aperture	F1.0	F1.6
Field of View (FOV)	H: 63°, V: 50°	H: 112°, V: 58°
Focus Control	Free-focus	Fixed focus
Intelligent Analytics		
AI Multi-Target	Supports human/vehicle detection.	Supports human/vehicle detection.
Intelligent Analysis	Intrusion, smart motion detection, single/double line crossing, loitering, wrong-way detection, and enter/leave area. - Supports accurate target classification (human/vehicle)	Intrusion, smart motion detection, single/double line crossing, loitering, wrong-way detection, and enter/leave area. - Supports accurate target classification (human/vehicle)
Smoke and Flame Detection	N/A	Supported
People Counting	Supported	Supported
Smoking Detection	Supported	N/A
Fire Spot Detection	Supported	N/A
Video & Audio		
Main Stream	1920×1080, 1280×1024, 1280×720, 640×512	2688×1520, 2560×1440, 2304×1296, 1920×1080, 1280×720
Sub Stream	D1, VGA, 640×512, CIF	D1, VGA
Frame Rate	Up to 25fps	Up to 25/30fps
Bit Rate Control	CBR/VBR	CBR/VBR
Bit Rate	Main stream: 100 Kbps to 12 Mbps, Sub stream: 100 Kbps to 6 Mbps	Main Stream: 100 Kbps to 16 Mbps Sub Stream: 100 Kbps to 6 Mbps
Smart Encoding	Supported	Supported

Audio Compression	G.711 A-law, G.711 μ -law, RAW_PCM	G.711 A-law, G.711 μ -law, RAW_PCM
Audio Bit Rate	64 Kbps (G.711), 128 Kbps (RAW_PCM)	64 Kbps (G.711), 128 Kbps (RAW_PCM)
Image		
Image Adjustment	Brightness, Contrast, Sharpness	Brightness, Saturation, Contrast, Sharpness
Scene Mode	Mirror	Indoor, Outdoor, Mirror
Pseudo-color Setting	Up to 17 colors (White-hot / Black-hot / Rainbow / Iron red / HSV / Bone / Cool / Copper / Fire-hot / Pink / Spring / Summer / Autumn / Winter / Jet / Flame / Rose -Bengal)	N/A
FFC Control	Auto / Manual	N/A
Exposure Mode	N/A	Auto / Manual
White Balance	N/A	Auto / Tungsten / Fluorescent / Daylight / Shadow / Manual
Day/Night Setting	N/A	Auto / Day / Night / Timer
Noise Reduction	2D/3D DNR	2D/3D DNR
Image Enhancement	N/A	HLC, BLC, Defog, WDR
Wide Dynamic Range	N/A	True WDR 120dB
OSD	Up to 8 OSD	Up to 8 OSD
Privacy Masking	Up to 4 areas	Up to 4 areas
Thermal Function		
Temperature Range	-20°C to 150°C (-4°F to 302°F)	
Accuracy	$\pm 2^\circ\text{C}$ / $\pm 2\%$	
Temperature Detection	3 temperature measurement rule types, 20 rules in total, 1 full screen, 19 others (spot, areas, line).	
Temperature Alarm	Temperature difference alarm, Threshold alarm, Temperature rise alarm	
Temperature Display	Display in the lower left corner; follow the cursor display of the highest temperature, lowest temperature or average temperature	
Response Time	$\leq 30\text{ms}$	
Image Fusion	Fusion view of thermal view and overlaid details of the optical channel	
Event		
Alarm Triggers	IVS, Temperature anomaly, Motion detection, Disk alarm, Network alarm, Abnormal sound detection	
Event Actions	Alarm record, SMTP, FTP upload, Audible alarm output	
Network		
Protocols	IPv4/IPv6, HTTP/HTTPS, DNS, DDNS, DHCP, PPPoE, RTSP/ RTCP/RTP, TCP/UDP, NTP, ARP, UPnP, FTP, SMTP, QoS, ICMP, IGMP, SMTP, 802.1x, SNMP, Multicast	
Application Programming Interface	ONVIF (Profile S/T/G/M), CGI	
Max Concurrent Streams	10 channels	
User/Host Level	32+ users, 3 levels: Administrator, Operator, Media user	

Web Viewer	<IE11, Chrome, Firefox, Microsoft Edge
Security	
OS / Firmware Protect	Encrypted firmware, Signed firmware
User Authentication	Digest authentication, Prevent brute-force attack
Network Authentication	IEEE 802.1X (EAP-TLS)
Secure Communication	HTTPS, WSS (WebSocket Secure), SRTP
Access Control	IP-based access control, Auto logout
Data Protect	Encryption credentials
Audit	Access / System / Event Log management
Supply Chain Security	SBOM
Interface	
Network Interface	RJ-45 Ethernet (10/100BASE-T)
Built-in Microphone	Supported
Audio Interface	1 output
CVBS Output	Supported
General	
Language	English, Chinese, Traditional Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian, Japanese, Korean. Default: English
Power Supply	12 VDC / PoE (802.3af)
Power Consumption	Max 6 W
Operating Temperature	-40°C to 60°C (-40°F to 140°F)
Operating Humidity	Less than 95% RH (no condensation)
Ingress Protection	IP66
Certifications	CE / FCC
Material	Aluminum alloy
Dimensions	150.6 × 129.4 × 135 mm (5.93 × 5.1 × 5.31 inch)
Net Weight	Approx. 1.77 Kg (3.9 lb)
Thermal DRI Distance	
Thermal Lens	7 mm
Detection (Human: 1.8×0.5 m)	292 m (958.0 ft)
Detection (Vehicle: 4×1.5 m)	894 m (2933.1 ft)
Recognition (Human: 1.8×0.5 m)	73 m (239.5 ft)
Recognition (Vehicle: 4×1.5 m)	224 m (734.9 ft)
Identification	36 m (118.1 ft)



(Human: 1.8×0.5 m)	
Identification (Vehicle: 4×1.5 m)	112 m (367.5 ft)

Note:

Distances are calculated based on Johnson's Criteria.

Detection: Object must be covered by ≥ 1.5 pixels.

Recognition: Object must be covered by ≥ 6 pixels.

Identification: Object must be covered by ≥ 12 pixels.

Thermal Smart Detection	
Lens	7 mm
Temperature Measurement (1 ×1 m)	117 m (383.9 ft)
Temperature Measurement (0.2×0.2 m)	23 m (75.5 ft)
Fire Detection (1×1 m)	292 m (958 ft)
Fire Detection (0.2×0.2 m)	58 m (190.3 ft)

Note:

Values are for reference only. Actual detection range may vary with atmospheric conditions, target size, and installation environment.



Dimensions

