



Bi-Spectrum Series 4 (100mm)

Thermal & Optical Bi-spectrum PTZ Camera

IMC4-Bi-100



Key Features

- VOx uncooled focal plane detector with 640×512 resolution
- NETD ≤ 40mK
- 25/50/75/100mm motorized thermal lens optical, 37x optical zoom module
- Support human/vehicle detection
- Support smoke & fire detection and fire point detection
- Smart events: intrusion, single line crossing, double line crossing, loitering, wrong-way, people counting, enter area, leave area
- Support 3 temperature measurement rule types (spot, line, area)
- Temperature measurement range: -20°C to 150°C (-4°F to 302°F)
- Power off self-locking, strong wind resistance
- Anti-frozen, NDAA Compliance, IP66

Specification

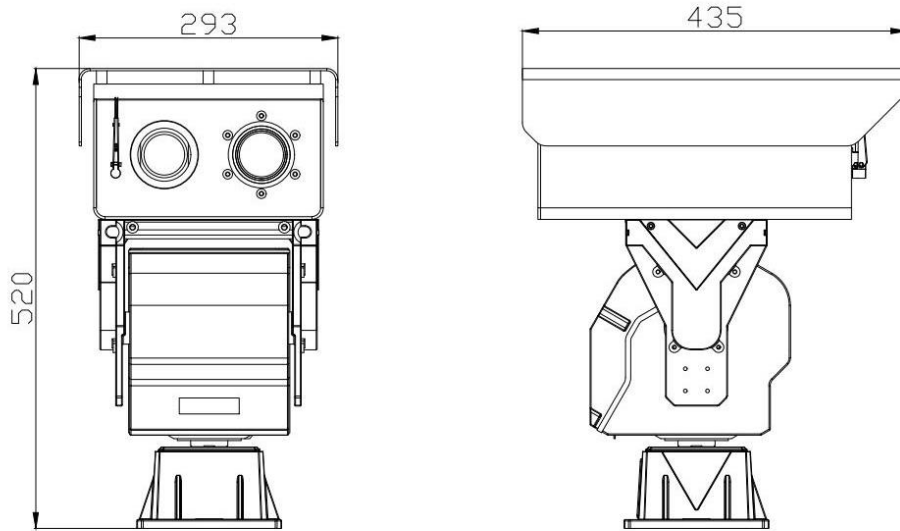
Thermal Module				
Image Sensor	Uncooled VOx Focal Plane Arrays 640×512			
Resolution	Sensor is 640×512. Image can be scaled up to 1280×1024			
Pixel Pitch	12μm			
NETD	≤ 40mK			
Spectral Range	8 to 14μm			
Image Setting	Brightness, Sharpness, Contrast, Mirror, FFC control, 2D/3D DNR			
Pseudo-color Setting	White-hot/Black-hot/Rainbow/Ironbow etc. up to 17 modes			
Thermal Lens				
Focus Control	Motorized Focus			
Focal Length	25mm	50mm	75mm	100mm
Aperture	F1.0	F1.0	F1.0	F1.0
Angle of View	H: 17°, V: 14°	H: 8°, V: 7°	H: 6°, V: 5°	H: 4.3°, V: 3.5°
Detection Distance (Human: 1.8×0.5m)	1,040 m (3,412.1 ft)	2,081 m (6,827.4 ft)	3,121 m (10,239.5 ft)	4,161 m (13,651.5 ft)
Detection Distance (Vehicle: 4×1.5m)	3,194 m (10,479 ft)	6,389 m (20,961 ft)	9,583 m (31,440.2 ft)	12,778 m (41,922.5 ft)
Recognition Distance (Human: 1.8×0.5m)	260 m (853 ft)	520 m (1,706 ft)	780 m (2,559.1 ft)	1,040 m (3,412.1 ft)
Recognition Distance (Vehicle: 4×1.5m)	799 m (2,621.4 ft)	1,597 m (5,239.5 ft)	2,396 m (7,860.9 ft)	3,194 m (10,479.0 ft)
Identification Distance (Humans: 1.8×0.5m)	130 m (426.5 ft)	260 m (853 ft)	390 m (1,280 ft)	520 m (1,706 ft)
Identification Range (Vehicles: 4×1.5m)	399 m (1,309 ft)	799 m (2,621.4 ft)	1,198 m (3930.4 ft)	1,597 m (5,539.5 ft)
* The table is only for reference and the performance may vary according to different environment.				
* The optimal detection, recognition, and identification distances are calculated according to Johnson's Criteria.				
Detection Range: In order to distinguish an object from the background, the object must be covered by 1.5 or more pixels.				
Recognition Range: In order to classify the object (animal, human, vehicle, etc.), the object must be covered by 6 or more pixels.				
Identification Range: In order to identify the object and describe it in details, the object must be covered by 12 or more pixels.				
Detection Range Table				
Temperature Measurement (Object: 1 × 1m)	417 m (1,368.1 ft)	833 m (2,732.9 ft)	1,250 m (4,101 ft)	1,667 m (5,469.2 ft)
Temperature Measurement (Object: 0.2 × 0.2m)	83 m (272.3 ft)	167 m (547.9 ft)	250 m (820.2 ft)	333 m (1,092.5 ft)
Fire Detection (Object: 1 × 1m)	1,042 m (3,418.6 ft)	2,083 m (6,834 ft)	3,125 m (10,252.6 ft)	4,167 m (13,671.3 ft)
Fire Detection (Object: 0.2 × 0.2m)	208 m (682.4 ft)	417 m (1,368.1 ft)	625 m (2,050.5 ft)	833 m (2,732.9 ft)
Note: The table is for reference only. The distances within it are subject to actual conditions including atmospheric conditions, target size, the installation site, and more.				
Optical Module				
Image Sensor	1/1.8" CMOS			
Max. Resolution	2592 (H)×1520 (V), 4MP			
Shutter Speed	1/5 to 1/20,000s			
Min. Illumination	Color: 0.001 Lux @ (F1.5, AGC ON), B/W: 0.0001 Lux (F1.5, AGC ON),, 0 Lux with light			

WDR	True WDR
Focal Length	6.8 to 251 mm, 37x optical zoom
Aperture	F1.5 to F4.8
Angle of View	H: 60.7° to 2.33°, V: 36.8° to 1.38°
Digital Zoom	16x
Focus Control	Auto/Manual/Semi-automatic
Mirror	Support
Defog	Support
Privacy Masking	Support
PTZ	
Pan/Tilt Range	Pan: 0° to 360° endless, Tilt: +40° to -75°
Pan/Tilt Speed	Pan: 0.01° to 60°/s, Tilt: 0.01° to 30°/s
Wiper	Support
Preset Accuracy	± 0.2°
Presets	400
Scan	8 scans
Patrol	12 patrols, up to 32 presets per patrol
Track	6 tracks
3D Positioning	Support
Speed Setup	Auto/Manual (0-8)
Power Off Memory	Support
Idle Motion	The time can be set (1-240 minutes), and functions such as preset positions, patrols, scans, and tracks can be run.
Video and Audio	
Main Stream	Thermal: 1280×1024, 1280×720, 640×512 @25/30fps Optical: 2592×1520, 2304×1296, 1920×1080, 1280×720 @25/30fps
Sub Stream	Thermal: D1, CIF @ 25/30fps Optical: D1, VGA, CIF @25/30fps
Bit Rate Control	CBR/VBR
Bit Rate	Thermal: 100Kbps to 6Mbps Optical: Main stream: 200Kbps to 16Mbps, Sub stream: 100Kbps to 6Mbps
Region of Interest	Off/On (8 Zone, Rectangle)
Audio Compression	G711: 64kbps, RAW_PCM: 128kbps
Smart Function	
Smart Alarm	Motion detection, Disk alarm, I/O alarm, IVS alarm, Temperature detection & alarm
Smart Detection	Support human/vehicle detection, fire point detection and smoke & fire detection (ship detection optional)
Intelligent Analysis	Intrusion, Single line crossing, Double line crossing, Loitering, Wrong-way, Enter area, Leave area (these 7 function support accurate detection of people/vehicles), People counting
Temperature Detection	
Temperature Detection	3 temperature measurement rule types, 20 rules in total, 1 full screen, 19 others (spot, areas, line).
Temperature Alarm	Over temperature alarm, Temperature difference alarm

Accuracy	±2°C / ±2%
Response Time	≤ 30ms
Temperature Range	-20°C to 150°C (-4°F to 302°F)
Network	
Protocols	IPv4/IPv6, HTTP, HTTPS, RTSP/RTP/RTCP, TCP/UDP, DHCP, DNS, DDNS, PPPOE, FT, SMTP, 802.1x, SNMP
Interoperability	ONVIF, CGI, SDK
Max. User Access	10 Users
Web Viewer	<IE11, Chrome, Firefox, Microsoft Edge
Web Language	English, Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian
Interface	
Network Interface	1 Ethernet (10/100 Base-T) RJ-45 Connector
Audio Interface	2ch Audio In, 2ch Audio Out
Alarm Interface	9ch Alarm In, 4ch Alarm Out
RS485	Support
BNC Output	Support
Reset Button	Support (Built-in)
SD Card Slot	Built-in, up to 256GB
General	
Power Supply	DC36V
Power Consumption	Max 100W
Working Temperature	-40°C to 60°C (-40°F to 140°F)
Storage Conditions	0 to 90% RH
Certifications	CE /FCC
Ingress Protection	IP66
Casing	Metal
Dimensions	293 × 420 × 520 mm (11.54 × 17.13 × 20.47 inch) with 25/50/75mm lens 333 × 490 × 550 mm (13.11 × 19.29 × 21.65 inch) with 100mm lens
Net Weight	≤75mm lens: 26 Kg (57.32 lb) 100mm lens: 28 Kg (61.73 lb)
Ordering Information	
Model	Description
SN-TPT6436ZZ-M25-ZSD37	Thermal Focal Length: 25mm Optical Focal Length: 6.8 to 251 mm, 37x optical zoom
SN-TPT6436ZZ-M50-ZSD37	Thermal Focal Length: 50mm Optical Focal Length: 6.8 to 251 mm, 37x optical zoom
SN-TPT6436ZZ-M75-ZSD37	Thermal Focal Length: 75mm Optical Focal Length: 6.8 to 251 mm, 37x optical zoom
SN-TPT6436ZZ-M100-ZSD37	Thermal Focal Length: 100mm Optical Focal Length: 6.8 to 251 mm, 37x optical zoom

Dimensions (mm)

25/50/75 mm thermal lens



100 mm thermal lens

