



# SN-TPC6401AT-M (II)

Thermal Imaging Box Network Camera



## Key Features

- VOx uncooled focal plane detector with 640×512 resolution
- NETD ≤ 40mK
- 25/50/75/100mm motorized focus lens optional
- Support temperature monitoring and exception alarm
- Intelligent analysis: intrusion, single line crossing, double line crossing, object left, object removed
- Support 3 temperature measurement rule types (spot, line, area)
- Temperature measurement range: -20°C to 150°C (-4°F to 302°F)
- Accuracy: ±2°C / ±2%

## Specification

Thermal Module	
Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays
Resolution	Sensor is 640×512. Image can be scaled up to 704×576
Pixel Pitch	17 μm
NETD	≤ 40mK
Spectral Range	8 to 14 μm
Focus Control	Fixed lens (Motorized focus)
Focal Length	25 mm, 50 mm, 75 mm, 100 mm
Aperture	F1.0
Field of View (FOV)	25 mm: H: 15.4°, V: 11.6° 50 mm: H: 7.7°, V: 5.8° 75 mm: H: 5.1°, V: 3.8° 100 mm: H: 3.8°, V: 2.3°
Intelligent Analytics	
Intelligent Analysis	Intrusion detection, Single line crossing, Double line crossing, Object left, and Object removed
Thermal Function	
Temperature Range	-20°C to 150°C (-4°F to 302°F)
Accuracy	±2°C / ±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	≤ 30ms
Video and Audio	
Main Stream	704×576 @25/30fps
Sub Stream	CIF @25/30fps
Bit Rate Control	CBR/VBR
Bit Rate	Main stream: 100 Kbps to 6 Mbps, Sub stream: 10 Kbps to 1.5 Mbps
Region of Interest	Off/On (8 Zone, Rectangle)
Audio Compression	G.711 A-law, G.711 μ-law, PCM
Audio Bit Rate	64 Kbps (G.711), 128 Kbps (PCM)
Image	
Image Setting	Brightness, Contrast, Sharpness
Mirror	Horizontal / Vertical / Horizontal + Vertical
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)
FFC Control	Auto / Manual
Noise Reduction	2D/3D DNR
OSD	Up to 8 OSD
Privacy Masking	Up to 4 areas

Event	
Alarm Triggers	IVS, Temperature anomaly, Motion detection, Alarm Input, Disk alarm, Network alarm
Alarm Events	Alarm record, Alarm output, FTP upload, SMTP upload
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
Interoperability	ONVIF (Profile S/T/G/M), SDK, CGI
User/Host Level	Up to 10 users, 3 levels: Administrator, Operator, Media user
Security	IP address filter, encrypted HTTPS, Illegal login lock, IEEE 802.1x
Web Viewer	<IE11, Chrome, Firefox, Microsoft Edge
Interface	
Network Interface	1 Ethernet (10/100 Base-T) RJ-45 Connector
Audio Interface	1ch Audio In, 1ch Audio Out
Alarm Interface	2ch Alarm In, 2ch Alarm Out
RS-485	1ch
BNC Interface	1ch (CVBS output)
SD Card Slot	Built-in, up to 128GB
Reset Button	Support
General	
Language	English, Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian. Default: English
Power Supply	12VDC $\pm$ 10%
Power Consumption	Max 5W
Working Temperature/Humidity	-40°C to 60°C (-40°F to 140°F), Humidity: $\leq$ 90% RH (non-condensing)
Operating Humidity	0 to 90% RH
Certifications	CE-EMC (EN 55032:2015, EN 55035:2017, EN 55024:2010+A1:2015, EN 50130-4:2011+A1:2014, EN 61000-3-2:2014, EN 61000-3-3:2013) FCC (FCC 47 CFR 15, Subpart B)
Ingress Protection	-
Material	Metal
Dimensions	154.7 $\times$ 70 $\times$ 70 mm (6.09 $\times$ 2.76 $\times$ 2.76 inch)
Net Weight	0.7 kg (1.54 lb) with 50 mm lens
Ordering Information	
Model	Description
SN-TPC6401AT-M25 (II)	Focal Length: 25 mm
SN-TPC6401AT-M50 (II)	Focal Length: 50 mm
SN-TPC6401AT-M75 (II)	Focal Length: 75 mm
SN-TPC6401AT-M100 (II)	Focal Length: 100 mm

## Thermal DRI Range Table

**Note:** The table is only for reference and the performance may vary according to different environment.

**Note:** 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.

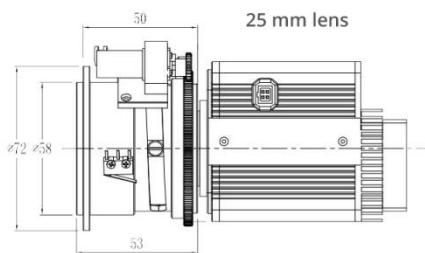
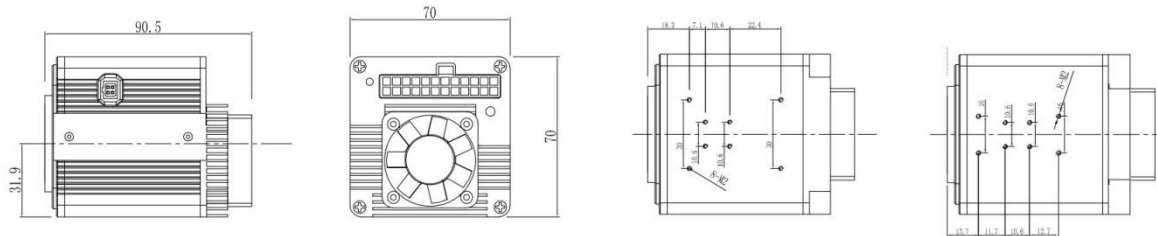
DRI Distance Table				
Focal Length	25 mm	50 mm	75mm	100mm
Detection Distance (Humans: 1.8x0.5m)	735 m (2,411.4 ft)	1,471 m (4,826.1 ft)	2,206 m (7,237.5 ft)	2,941 m (8,172.6 ft)
Detection Distance (Vehicles: 4x1.5m)	2,255 m (7,398.3 ft)	4,510 m (14,796.6 ft)	6,765 m (22,194.9 ft)	9,020 m (29,593.2 ft)
Recognition Distance (Humans: 1.8x0.5m)	184 m (603.7 ft)	368 m (1,207.4 ft)	551 m (1,807.7 ft)	735 m (2,411.4 ft)
Recognition Distance (Vehicles: 4x1.5m)	564 m (1,850.4 ft)	1,127 m (3,697.5 ft)	1,691 m (5,547.9 ft)	2,255 m (7,398.3 ft)
Identification Distance (Humans: 1.8x0.5m)	92 m (301.8 ft)	184 m (603.7 ft)	276 m (905.5 ft)	368 m (1,207.4 ft)
Identification Range (Vehicles: 4x1.5m)	282 m (925.2 ft)	564 m (1,850.4 ft)	846 m (2,775.6 ft)	1,127 m (3,697.5 ft)

## Thermal Smart Detection Distance Range Table

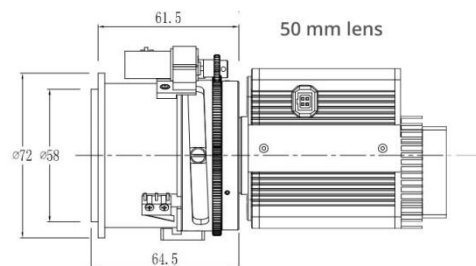
**Note:** The table is for reference only. The distances within it are subject to actual conditions including atmospheric conditions, target size, the installation site, and more.

Detection Range Table				
Focal Length	25 mm	50 mm	75 mm	100 mm
Temperature Measurement (Object: 1 x 1m)	294 m (964.6 ft)	588 m (1,929.1 ft)	882 m (2,893.7 ft)	1,176 m (3,858.3 ft)
Temperature Measurement (Object: 0.2 x 0.2m)	59 m (193.6 ft)	118 m (616.8 ft)	176 m (577.4 ft)	235 m (771 ft)
Fire Detection (Object: 1 x 1m)	735 m (2,411.4 ft)	1,471 m (4,826.1 ft)	2,206 m (7,237.5 ft)	2,941 m (9,649 ft)
Fire Detection (Object: 0.2 x 0.2m)	147 m (482.3 ft)	294 m (964.6 ft)	441 m (1,446.9 ft)	588 m (1,929.1 ft)

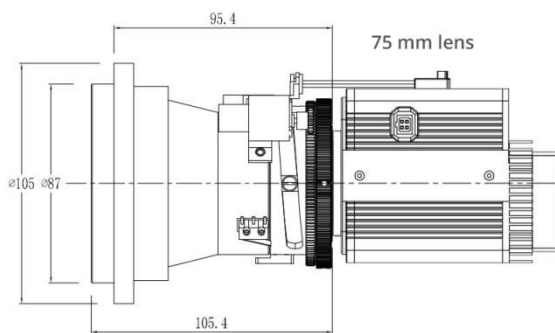
## Dimensions (mm)



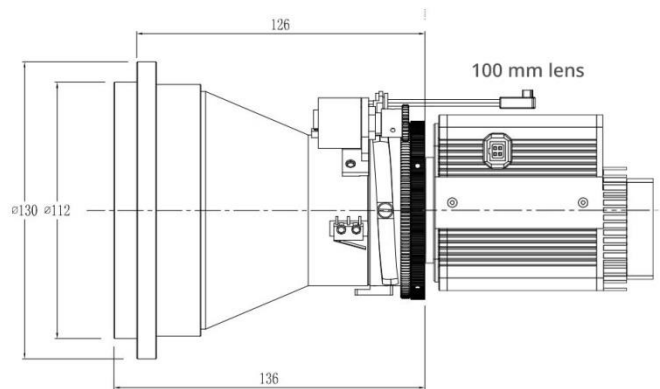
25 mm lens



50 mm lens



75 mm lens



100 mm lens