



# SN-TPC4207KV-F

Thermal Imaging Security Network Bullet Camera



## Key Features

- VOx uncooled focal plane detector with 384×288 resolution
- NETD ≤ 40mK
- 9/15/25/35/50mm fixed lens optional
- Supports human/vehicle/ship detection, as well as smoking and fire point detection.
- Intelligent Analytics: intrusion, single line crossing, double line crossing, loitering, wrong-way detection, enter area, leave area, and people counting.
- Support 3 temperature measurement rule types (spot, line, area)
- Temperature range: -20°C to 150°C (-4°F to 302°F), Accuracy: ±8°C
- Built-in mic and speaker, support two-way audio
- Support 12VDC/24VAC/PoE power supply
- NDAA Compliance, IP66



## Specification

Thermal Module	
Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays
Resolution	Sensor is 384×288. Image can be scaled up to 1280×720
Pixel Pitch	17 μm
NETD	≤ 40mK
Spectral Range	8 to 14 μm
Focus Control	Fixed lens (Focus-Free)
Focal Length	9 mm, 15 mm, 25 mm, 35 mm, 50 mm
Aperture	F1.0
Field of View (FOV)	9 mm, H: 37°, V: 28° 15 mm, H: 28°, V: 21° 25 mm, H: 14°, V: 11° 35 mm, H: 10°, V: 8° 50 mm, H: 7.4°, V: 5.6°
Intelligent Analytics	
Smart Detection	Human, Vehicle and Ship detection, Fire point detection, Smoking detection.
Intelligent Analysis	Intrusion, Single line crossing, Double line crossing, Loitering, Wrong-way, Enter area, and Leave area (these functions support accurate detection of human / vehicles)
People counting	Support
Thermal Function	
Temperature Range	-20°C to 150°C (-4°F to 302°F)
Accuracy	±8°C
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	1280×720, 704×576, 384×288 @25fps
Sub Stream	704×576, 384×288, 352×240 @25fps
Bit Rate Control	CBR/VBR
Bit Rate	Main stream: 100 Kbps to 8 Mbps, Sub stream: 100 Kbps to 6 Mbps
Region of Interest	Off/On (8 Zone, Rectangle)

Audio Compression	G.711 A-law, G.711 $\mu$ -law, PCM
Audio Bit Rate	64 Kbps (G.711), 128 Kbps (PCM)
<b>Image</b>	
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
<b>Event</b>	
Alarm Triggers	IVS, Temperature anomaly, Motion detection, Alarm Input, Disk alarm, Network alarm, Abnormal sound detection
Event Actions	Alarm record, Alarm output, FTP upload, SMTP upload, Audible alarm output
<b>Network</b>	
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
Max Concurrent Streams	10 channels
User/Host Level	32+ users, 3 levels: Administrator, Operator, Media user
Security	IP address filter, HTTPS, Illegal login lock, IEEE 802.1x
Web Viewer	<IE11, Chrome, Firefox, Microsoft Edge
<b>Interface</b>	
Network Interface	1 Ethernet (10/100 Base-T) RJ-45 Connector
Built-in Microphone	Support
Built-in Speaker	Support
Audio Interface	1ch Audio In, 1ch Audio Out
Alarm Interface	2ch Alarm In, 2ch Alarm Out
BNC Interface	1ch (CVBS output)
Control Interface	1ch RS-485
SD Card Slot	Built-in, up to 1 TB
Reset Button	Support

General	
Language	English, Chinese, Traditional Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian, Japanese, Korean. Default: English
Power Supply	12 VDC / 24 VAC / PoE (802.3af)
Power Consumption	Max 4.5 W
Working Temperature/Humidity	-40°C to 60°C (-40°F to 140°F), Humidity: ≤90% RH (non-condensing)
Operating Humidity	0 to 90% RH
Certifications	CE-EMC - EN 55032, EN IEC 61000-6-4, EN IEC 61000-3-2, EN 61000-3-3, EN 55035, EN 50130-4 FCC 47 CFR Part 15 Subpart B
Ingress Protection	IP66
Material	Metal
Dimensions	φ120.5 × 315.9 ~ 352.6 mm (φ4.74" × 12.44" ~ 13.88")
Net Weight	1.62 kg (3.57 lb) with 9mm lens
Ordering Information	
Model	Description
SN-TPC4207KV-F09	Focal Length: 9 mm
SN-TPC4207KV-F15	Focal Length: 15 mm
SN-TPC4207KV-F25	Focal Length: 25 mm
SN-TPC4207KV-F35	Focal Length: 35 mm
SN-TPC4207KV-F50	Focal Length: 50 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	9 mm	15 mm	25 mm	35 mm	50 mm
Detection Distance (Humans: 1.8×0.5m)	265 m (869.4 ft)	441 m (1,446.9 ft)	735 m (2,411.4 ft)	1,029 m (3,376.0 ft)	1,471 m (4,826.1 ft)
Detection Distance (Vehicles: 4×1.5m)	812 m (2,664 ft)	1,353 m (4,439 ft)	2,255 m (7,398.3 ft)	3,157 m (10,357.6 ft)	4,510 m (14,796.6 ft)
Recognition Distance (Humans: 1.8×0.5m)	66 m (216.5 ft)	110 m (360.9 ft)	184 m (603.7 ft)	257 m (843.2 ft)	368 m (1,207.4 ft)
Recognition Distance (Vehicles: 4×1.5m)	203 m (666 ft)	338 m (1,109 ft)	564 m (1,850.4 ft)	789 m (2,588.6 ft)	1,127 m (3,697.5 ft)
Identification Distance (Humans: 1.8×0.5m)	33 m (108.3 ft)	55 m (180.4 ft)	92 m (301.8 ft)	129 m (423.2 ft)	184 m (603.7 ft)
Identification Range (Vehicles: 4×1.5m)	101 m (331.4 ft)	169 m (554.5 ft)	282 m (925.2 ft)	395 m (1,296 ft)	564 m (1,850.4 ft)

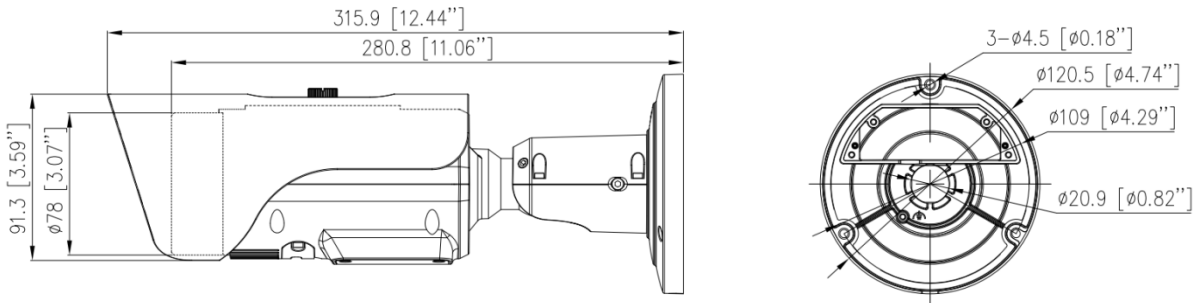
## Thermal IVS Distance Range Table

**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.

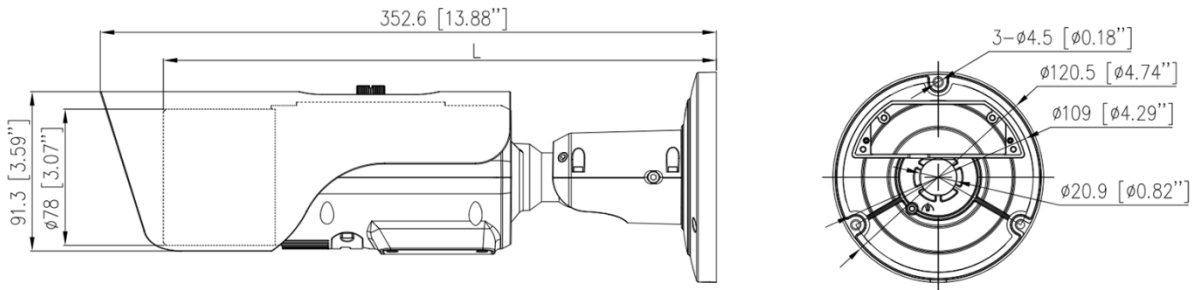
Detection Range Table					
Focal Length	9 mm	15 mm	25 mm	35 mm	50 mm
Temperature Measurement (Object: 0.2 × 0.2m)	21 m (68.9 ft)	35 m (114.8 ft)	59 m (193.6 ft)	82 m (269 ft)	118 m (616.8 ft)
Fire Detection (Object: 1 × 1m)	265 m (869.4 ft)	441 m (1,446.9 ft)	735 m (2,411.4 ft)	1,029 m (3,376 ft)	1,471 m (4,826.1 ft)
Fire Detection (Object: 0.2 × 0.2m)	53 m (173.9 ft)	88 m (288.7 ft)	147 m (482.3 ft)	206 m (675.9 ft)	294 m (964.6 ft)

## Dimensions (mm)

### F9/F15 mm Lens



### F25/F35/F50 mm Lens



f50 L=316.5mm [12.46"]  
 f35 L=305.3mm [12.02"]  
 f25 L=296.8mm [11.69"]

## Accessories

### Optional:



SN-CBK645G  
Junction Box



SN-CBK101A  
Pole Mount



SN-CBK102A  
Corner Mount