SN-TPC4233DJT-F

Thermal & Optical Bi-spectrum Bullet Network Camera

Key Features

- 400 × 300 resolution, 17 μm, VOx UFPA, NETD ≤ 40 mK

- Thermal : 8/15/25/35/50mm lens optional; Visible: 5 to 50mm motorized lens

- Detection Capabilities: Human/vehicle, smoking, smoke & flame, fire point detection

- Intelligent Analytics: Intrusion, single/double line crossing, loitering, wrong-way, people counting, enter/leave area detection

- Support 3 temperature measurement rule types (spot, line, area)

- Temperature Monitoring & Alarm: -20°C to 150°C (-4°F to 302°F), Accuracy: ±2°C / ±2%

- Smart IR range up to 100m

- IP66

Specification

Camera	Thermal	Visible
Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays	1/2.8" CMOS
Resolution	400(H) × 300(V) , Image can be scaled up to 704 × 576	1920(H) × 1080(V)
Pixel Pitch	17µm	
Spectral Range	8 to 14µm	
NETD	≤ 40mK	
Min. Illumination		Color: 0.1Lux @(F2.0, AGC ON), B/W: 0.01Lux @(F2.0, AGC ON), 0Lux with IR
Shutter Speed		1/5 to 1/20,000s
Lens Type	Fixed	Motorized
Focal Length	8 mm, 15mm, 15mm, 35mm, 50mm optional	5 to 50 mm optional
Max. Aperture	F1.0	F2.0
Focus Control	Manual focal	Motorized focal
Field of View (FOV)	8 mm, H: 46°, V: 35.3° 15 mm, H: 25.5°, V: 19.2° 25 mm, H: 15.4°, V: 11.6° 35 mm, H: 11°, V: 9° 50 mm, H: 7.7°, V: 5.8°	H: 50.85° to 7.67°, V: 27.78° to 4.36°
IVS		
AI Multi-Target	Human and vehicle detection	Human and vehicle detection
Intelligent Analysis	Intrusion, Single Line Crossing, Double Line Crossing, Loitering, Wrong-Way Detection, Enter Area, Leave Area Support alarm triggering by specified target types (human and vehicle)	Intrusion, Single Line Crossing, Double Line Crossing, Loitering, Wrong-Way Detection, Enter Area, Leave Area Support alarm triggering by specified target types (human and vehicle)
Smoking Detection	Support	
Smoke and Flame Detection		Support
Fire Spot Detection	Support	
People Counting	Support	Support
Video and Audio		
Main Stream	D1 (704×576) @25/30fps	1920×1080, 1280×720 @25/30fps
Sub Stream	CIF @25/30fps	D1, VGA, 640×360, CIF, QVGA @25/30fps
Bit Rate Control	CBR/VBR	CBR/VBR
Bit Rate	Main Stream: 100Kbps to 6Mbps, Sub Stream: 10Kbps to 3Mbps	Main Stream: 100Kbps to 12Mbps Sub Stream: 10Kbps to 6Mbps
Smart Encode	Support	Support
Audio Compression	G.711 A-law, G.711 µ-law, RAM PCM	G.711 A-law, G.711 µ-law, RAM PCM
Image		

Image Setting	Brightness, Contrast, Sharpness	Brightness, Saturation, Contrast, Sharpness
Mirror	Horizontal / Vertical / Horizontal+Vertical	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	
Gain Control		Auto / Manual
White Balance		Auto / Tungsten / Fluorescent / Daylight / Shadow
Day/Night		Day mode / Night mode / Time
Noise Reduction	2D/3D DNR	2D/3D DNR
Image Enhancement		WDR, HLC, BLC
Wide Dynamic Range		True WDR 120dB
OSD	Up to 8 OSD	Up to 8 OSD
Privacy Masking	Up to 4 areas	Up to 4 areas
Illuminator		IR Range: Up to 100 m (328.0 ft)

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 Display	Display in the lower left corner; follow the cursor display of the highest temperature, lowest temperature or average temperature
Image Fusion	Fusion view of thermal view and overlaid details of the optical channel

Event

Alarm Triggers	IVS, Temperature anomaly, Motion detection, Alarm Input, Disk alarm, Network alarm, Abnormal sound detection
Event Actions	Alarm out, Alarm record, SMTP, FTP upload, Audible alarm output

Network

Protocols	IPv4/IPv6, HTTP/HTTPS, DNS, DDNS, DHCP, PPPOE, RTSP/RTP/RTCP, TCP/UDP, NTP, ARP, UPnP, FTP, SMTP, QoS, 802.1x, SNMP, Multicast
Compatible Integration	ONVIF (Profile S/T/G/M), CGI, SDK
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

Interface

Network Interface	1 Ethernet (10/100 Base-T) RJ-45 Connector
Audio Interface	1ch input, 1ch output

Alarm Interface	2ch input, 2ch output
RS-485	1
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/PoE+ (802.3at)
Power Consumption	Without heating: Max 10W, Including heating: Max 24W
Working Temperature and Humidity	-40°C to 60°C (-40°F to 140°F) Less than 90% RH
Certifications	CE-EMC - EN 55032, EN IEC 61000-6-3, 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	(244.8 to 274.8) × 180.5 × 126.8 mm (9.64 to 10.82 × 7.11 × 4.99 inch)
Net Weight	2.5 Kg (5.51 lb)

Ordering Information

Model	Description
SN-TPC4233DJT-F08	Thermal Focal Length: 8mm, Optical Focal Length: 5 to 50mm
SN-TPC4233DJT-F15	Thermal Focal Length: 15mm, Optical Focal Length: 5 to 50mm
SN-TPC4233DJT-F25	Thermal Focal Length: 25mm, Optical Focal Length: 5 to 50mm
SN-TPC4233DJT-F35	Thermal Focal Length: 35mm, Optical Focal Length: 5 to 50mm
SN-TPC4233DJT-F50	Thermal Focal Length: 50mm, Optical Focal Length: 5 to 50mm

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	8mm	15mm	25mm	35mm	50mm
Detection Distance (Humans: 1.8×0.5m)	235 m (771.7 ft)	441 m (1,446.9 ft)	734 m (2,408.1 ft)	1,028 m (3,372.7 ft)	1,469 m (4,819.6 ft)

Detection Distance (Vehicles: 4×1.4m)	722 m (2,368.8 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)	59 m (193.6 ft)	110 m (360.9 ft)	184 m (603.7 ft)	257 m (843.2 ft)	367 m (1,204.1 ft)
Recognition Distance (Vehicles: 4×1.4m)	180 m (590.6 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)	29 m (95.1 ft)	55 m (180.4 ft)	92 m (301.8 ft)	129 m (423.2 ft)	184 m (603.7 ft)
Identification Range (Vehicles: 4×1.4m)	90 m (295.3 ft)	169 m (554.5 ft)	282 m (925.2 ft)	395 m (1,296 ft)	564 m (1,850.4 ft)

Thermal Smart Detection 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.
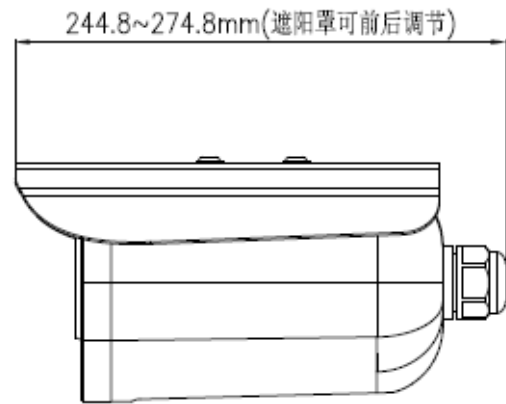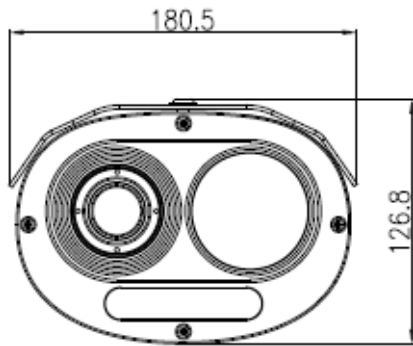
Detection Range Table					
Focal Length	**8mm**	**15mm**	**25mm**	**35mm**	**50mm**
Temperature Measurement (Object: 1 × 1m)	94 m (308.4 ft)	176 m (577.4 ft)	294 m (964.6 ft)	412 m (1,351.7 ft)	588 m (1,929.1 ft)
Temperature Measurement (Object: 0.2 × 0.2m)	19 m (62.3 ft)	35 m (114.8 ft)	59 m (193.6 ft)	82 m (269 ft)	118 m (616.8 ft)
Fire Detection (Object: 1 × 1m)	235 m (771 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)	47 m (154.2 ft)	88 m (288.7 ft)	147 m (482.3 ft)	206 m (675.9 ft)	294 m (964.6 ft)

Optical DORI Range Table

Note: DORI (Detect, Observe, Recognize, and Identify) is a standard system (EN-62676-4) for defining the ability of a person viewing the video to distinguish persons or objects within a covered area. The numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and commissioning manual/project design tool.

DORI Distance	
Lens	**5 to 50**
Detect	88 to 530 m (288.7 to 1,738.8 ft)
Observe	35.2 to 212 m (115.5 to 695.5 ft)
Recognize	17.6 to 106 m (57.7 to 347.8 ft)
Identify	8.8 to 53 m (28.9 to 173.9 ft)

Dimensions (mm)

180.5

126.8

244.8~274.8mm(遮阳罩可前后调节)
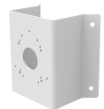
Accessories

Optional:

SN-BK346
Wall bracket

SN-BK350
Ceiling Bracket

SN-CBK101A
Pole Mount

SN-CBK102A
Corner Mount