SUNELL

SN-TPC6457DLT-F

Thermal & Optical Bi-spectrum Network Bullet Camera

Key Features

- Uncooled VOx Micro bolometer with 640×512 resolution

- Thermal: 9/15/25/35/50mm manual lens, optical: 4/6/10 to 30mm lens optional

- Support human, vehicle and fire point detection

- Intelligent analysis: 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 monitoring and exception alarm, -20°C to 150°C (-4°F to 302°F)

- Smart linkage of white light and audio

- Support 12VDC/24VAC/PoE+ power supply

- Smart IR distance up to 100m

- IP66

Specification

Thermal Camera

Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays				
Resolution	Sensor is 640×512, Image can be scaled up to 1280×1024				
Pixel Pitch	12µm				
Spectral Range	8 to 14µm				
Thermal Sensitivity (NETD)	≤ 40mK				
Lens Type	Fixed focal length, F1.0				
Focus Control	Free focus				
Focal Length	9mm	15mm	25mm	35mm	50mm
Angle of View	H: 48°, V: 38°	H: 32°, V: 26°	H: 17°, V: 14°	H: 12°, V: 10°	H: 8°, V: 7°
Min. Focusing Distance	1.73m	3.79m	13m	25.49m	52.3m
Detection Distance (Humans: 1.8×0.5m)	375 m (1230.3 ft)	624 m (2,047.2 ft)	1,040 m (3,412.1 ft)	1,456 m (4,776.9 ft)	2,081 m (6,827.4 ft)
Detection Distance (Vehicles: 4×1.5m)	1,150 m (3,773 ft)	1,917 m (6,289.3 ft)	3,194 m (10,479 ft)	4,472 m (14,672 ft)	6,389 m (20,961 ft)
Recognition Distance (Humans: 1.8×0.5m)	94 m (308.4 ft)	156 m (511.8 ft)	260 m (853 ft)	364 m (1,194.2 ft)	520 m (1,706 ft)
Recognition Distance (Vehicles: 4×1.5m)	288 m (944.9 ft)	479 m (1,571.5 ft)	799 m (2,621.4 ft)	1,118 m (3,668 ft)	1,597 m (5,239.5 ft)
Identification Distance (Humans: 1.8×0.5m)	47 m (154.2 ft)	78 m (255.9 ft)	130 m (426.5 ft)	182 m (597.1 ft)	260 m (853 ft)
Identification Range (Vehicles: 4×1.5m)	144 m (472.4 ft)	240 m (787.4 ft)	399 m (1,309 ft)	559 m (1,834 ft)	799 m (2,621.4 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.

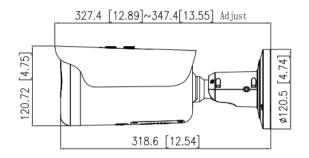Detection Range: In order to distinguish an object from the background, the object must be covered by 1.5 or more pixels.

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

VCA Detection Distance (Human: 1.8×0.5m)	47 m (154.2 ft)	84 m (275.6 ft)	145 m (475.7 ft)	188 m (616.8 ft)	280 m (918.6 ft)
VCA Detection Distance (Vehicle: 4×1.5m)	110 m (360.9 ft)	190 m (623.4 ft)	280 m (918.6 ft)	380 m (1,246.7 ft)	450 m (1,476.4 ft)
Temperature Measurement (Object: 1 × 1m)	150 m (492.1 ft)	250 m (820.2 ft)	417 m (1,368.1 ft)	583 m (1,912.7 ft)	833 m (2,732.9 ft)
Temperature Measurement (Object: 0.2 × 0.2m)	30 m (94.4 ft)	50 m (164 ft)	83 m (272.3 ft)	117 m (383.9 ft)	167 m (547.9 ft)
Fire Detection (Object: 1 × 1m)	375 m (1,230.3 ft)	625 m (2,050.5 ft)	1,042 m (3,418.6 ft)	1,458 m (4,783.5 ft)	2,083 m (6,834 ft)
Fire Detection (Object: 0.2 × 0.2m)	75 m (246.1 ft)	125 m (410.1 ft)	208 m (682.4 ft)	292 m (958 ft)	417 m (1,368.1 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.

Visible Camera

Image Sensor	1/1.8" CMOS
Effective Resolution	2688(H)×1520(V)
Shutter Speed	1/5 ~ 1/20,000s

Wide Dynamic Range	True WDR 120dB				
Min. Illumination	Color: 0.005Lux, B/W: 0.0001Lux, 0Lux with IR ON				
S/N Ratio	More than 60dB				
White Balance	Auto/Manual				
Day & Night Mode	IR Cut Filter with Auto Switch				
Focal Length	4mm, F1.6	6mm, F1.6	10 to 30mm, F1.6	10 to 30mm, F1.6	10 to 30mm, F1.6
Angle of View	H: 87°, V: 47°	H: 55°, V: 30°	H: 37°, V: 21°	H: 15.5°, V: 11.6°	H: 15.5°, V: 11.6°

Illuminator

IR Distance	Up to 70 or 100m (229.6ft or 328.0ft)
White Light	Strobe light

Video and Audio

Main Stream	Thermal: 1280×1024, 1280×1720, 640×512 @25/30fps Optical: 2688×1520, 1920×1080, 1280×720 @25/30fps
Sub Stream	Thermal: D1, CIF @25/30fps Optical: D1, 640×360, CIF @25/30fps
Bit Rate Control	CBR/VBR
Bit Rate	Main Stream: Thermal: 100Kbps to 8Mbps, Optical: 200Kbps to 12Mbps Sub Stream: Thermal: 100Kbps to 6Mbps, Optical: 100Kbps to 6Mbps
Region of Interest	Off/On (8 Zone, Rectangle)
Smart Encode	Support
Audio Compression	G.711: 64Kbps, RAW_PCM: 128Kbps

Image

Image Setting	Brightness, Sharpness, Contrast, Saturation
Mirror	Support
Pseudo-color Setting	White-hot/Black-hot/Rainbow/Ironbow etc. up to 17 modes (Thermal)
DVE Image Enhance	Support (Thermal)
Noise Reduction	2D/3D DNR
Defog	Support
Image Stabilization	DIS
Privacy Masking	Support
Motion Detection	Support
Bi-Spectrum Image Fusion	Support

Smart Function

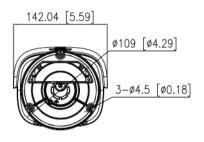| Smart Function	Temperature measurement, human detection and vehicle detection
Advanced Intelligence Analysis	Smoker detection, Smoke and Flame detection, fire point detection
Intelligent Analysis	Intrusion, Single line crossing, Double line crossing, Loitering, Wrong-way, Enter area, Leave area (these 7 function support accurate detection of people/vehicles) , People counting
Sound-light Alarm	Support white light flashing and horn warning
Temperature Measurement	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℃ / ±2%
Response Time	≤ 30ms
Temperature Range	-20°C to 150°C (-4°F to 302°F)
Network	
Protocols	IPv4/IPv6, HTTP, RTSP/RTP/RTCP, TCP/UDP, DHCP, DNS, PPPOE, SMTP, 802.1x
Interoperability	ONVIF
Max. User Access	10 Users
Web Viewer	<IE11, Chrome, Firefox, Microsoft Edge
Web Language	English, Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian. Default: English
Interface	
Network Interface	1 Ethernet (10/100 Base-T) RJ-45 Connector
Audio Interface	1ch input, 1ch output
Built-in Microphone	Support
Built-in Speaker	Support, Alarm sound transmission distance of 150m (492.13ft) (in a wooded environment)
Alarm Interface	2ch input, 2ch output
Analog Output	Support (Thermal imaging or optical switchable)
RS-485	Support
SD Card Slot	Support, up to 256GB
Reset Button	Support
Electrical	
Power Supply	12DCV/24VAC/POE+ (IEEE 802.3at)
Power Consumption	Max. 25W
Working Temperature	-40°C to 60°C (-40°F to 140°F)
Storage Conditions	Less than 90% RH
Certifications	CE /FCC
Ingress Protection	IP66
Casing	Metal
Dimensions	(327.4 to 347.4) × 140.04 × 120.72mm, (12.89 to 13.55) × 5.59 × 4.75 inch)
Net Weight	2.0Kg (4.41lb) with 50mm lens
Ordering Information	
Model	Description
SN-TPC6457DLT-F9	Thermal Focal Length: 9mm, Optical Focal Length: 4mm
SN-TPC6457DLT-F15	Thermal Focal Length: 15mm, Optical Focal Length: 6mm
SN-TPC6457DLT-F25	Thermal Focal Length: 25mm, Optical Focal Length: 10 to 30mm
SN-TPC6457DLT-F35	Thermal Focal Length: 35mm, Optical Focal Length: 10 to 30mm

| SN-TPC6457DLT-F50 | Thermal Focal Length: 50mm, Optical Focal Length: 10 to 30mm |

Dimensions (mm)

Accessories

Optional：

SN-CBK645G
Junction Box

SN-CBK101A
Pole Mount

SN-CBK102A
Corner Mount