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

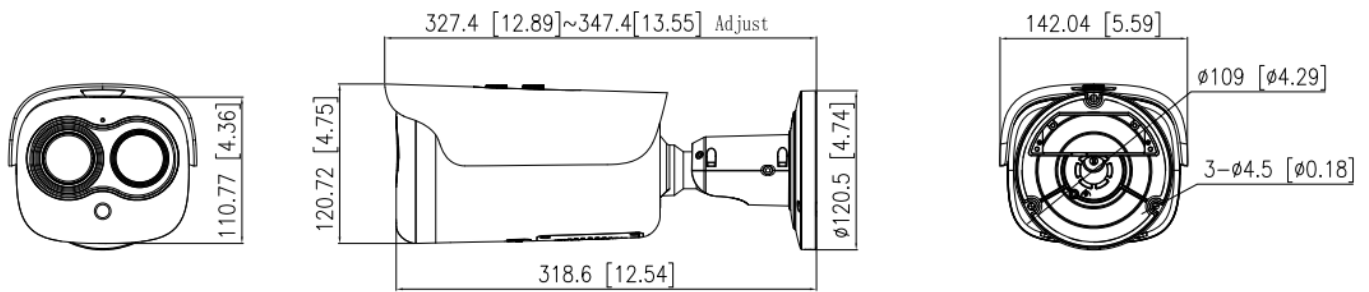| Wide Dynamic Range	True WDR 120dB				
Min. Illumination	Color: 0.005Lux, B/W: 0.0001Lux, 0Lux with IR ON				
S/N Ratio	More than 60dB				
White Balance	Auto/Manual				
Day & Night Mode	IR Cut Filter with Auto Switch				
Focal Length	4mm, F1.6	6mm, F1.6	10 to 30mm, F1.6	10 to 30mm, F1.6	10 to 30mm, 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 70m (229.6ft)	Up to 80m (262.5ft)	Up to 100m (328.0ft)	Up to 100m (328.0ft)	Up to 100m (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

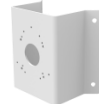| SN-TPC6457DLT-F50 | Thermal Focal Length: 50mm, Optical Focal Length: 10 to 30mm |

Dimensions (mm)

Accessories

Optional：

SN-CBK645G
Junction Box

SN-CBK101A
Pole Mount

SN-CBK102A
Corner Mount