



SN-TPC2553DRT-F

Thermal & Optical Bi-spectrum Network Bullet Camera



Key Features

- Uncooled VOx Micro bolometer with 256×192 resolution
- Thermal: 3.5/7/10mm fixed lens, Visible: 4/8mm fixed lens
- Support human and vehicle detection
- Support smoker detection, smoke & fire detection and fire point detection
- Intelligent analysis: intrusion, single line crossing, double line crossing, loitering, wrong-way, people counting, enter area, leave area and smart motion detection
- Support 3 temperature measurement rule types (spot, line, area)
- Temperature monitoring and exception alarm, -20°C to 150°C (-4°F to 302°F)
- Support sound-light alarm
- Smart IR distance up to 55m
- Support I/O alarm, RS485, built-in SD card slot
- DC12V/DC24V, PoE power supply

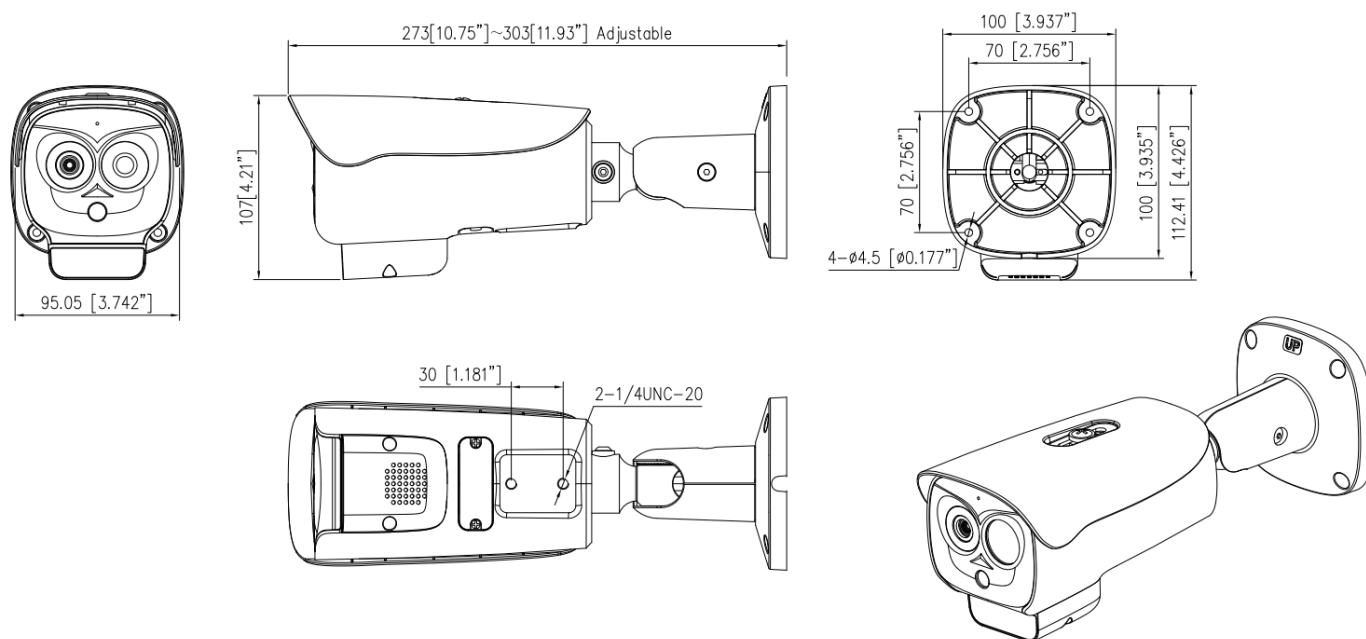
Specification

| Thermal Camera | | | |
|---|--|------------------|-------------------|
| Image Sensor | Vanadium Oxide Uncooled Focal Plane Arrays | | |
| Resolution | 256×192, Image can be scaled up to 704×576 | | |
| Pixel Pitch | 12um | | |
| Spectral Range | 8 to 14um | | |
| Thermal Sensitivity (NETD) | ≤ 50mK | | |
| Lens Type | Fixed, F1.0 | | |
| Focus Control | Free focus | | |
| Focal Length | 3.5mm | 7mm | 10mm |
| Angle of View | H: 48°, V: 36° | H: 24°, V: 18° | H: 17°, V: 13° |
| Detection Distance (Humans: 1.8×0.5m) | 146m (479.0ft) | 291m (954.7ft) | 416m (1,364.8ft) |
| Detection Distance (Vehicles: 4×1.5m) | 447m (1,466.5ft) | 894m (2,933..ft) | 1278m (4,192.9ft) |
| Recognition Distance (Human: 1.8×0.5m) | 36m (118.1ft) | 73m (239.5ft) | 104m (341.2ft) |
| Recognition Distance (Vehicle: 4×1.5m) | 112m (367.5ft) | 224m (734.9ft) | 319m (1,046.5ft) |
| Identification Distance (Human: 1.8×0.5m) | 18m (59ft) | 36m (118.1ft) | 52m (170.6ft) |
| Identification Distance (Vehicle: 4×1.5m) | 56m (183.7ft) | 112m (367.5ft) | 160m (524.9ft) |
| * 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) | 30m (98.4ft) | 65m (213.3ft) | 103m (337.9ft) |
| VCA Detection Distance (Vehicle: 4×1.5m) | 90m (295.3ft) | 144m (472.4ft) | 230m (754.6ft) |
| Temperature Measurement (Object: 1 × 1m) | 58.3m (191.3ft) | 116.7m (382.9ft) | 166.7m (546.9ft) |
| Temperature Measurement (Object: 0.2 × 0.2m) | 11.7m (38.4ft) | 23.3m (76.4ft) | 33.3m (109.3ft) |
| Fire Detection (Object: 0.2×0.2m) | 41.7m (136.8ft) | 83.3m (273.3ft) | 119m (390.4ft) |
| Smoking Detection | 13m (42.7ft) | 25m (82ft) | 40m (131.2ft) |
| 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 | 1/2.7" CMOS | | |
| Effective Resolution | 2880(H)×1620(V) | | |

| | | | |
|--------------------------------|--|----------------|----------------|
| Shutter Speed | 1/5 to 1/20,000s | | |
| Wide Dynamic Range | True WDR 120dB | | |
| Min. Illumination | Color: 0.05Lux @(F1.6, AGC ON), B/W: 0.005Lux @(F1.6, AGC ON), 0Lux with IR | | |
| S/N Ratio | More than 55dB | | |
| White Balance | Auto/Manual | | |
| Day & Night Mode | IR Cut Filter with Auto Switch | | |
| Focal Length | 4mm, F1.6 | 8mm, F2.0 | 8mm, F2.0 |
| Angle of View | H: 92°, V: 46° | H: 40°, V: 20° | H: 40°, V: 20° |
| Illuminator | | | |
| IR Distance | Up to 55m (180.4ft) | | |
| White Light | Strobe light | | |
| Video and Audio | | | |
| Main Stream | Thermal: D1 (704×576) @25/30fps Optical: 2880×1620, 2560×1440, 2304×1296, 1920×1080, 1280×720 @25/30fps | | |
| Sub Stream | Thermal: D1, CIF, 256×192 @25/30fps Optical: D1, VGA @25/30fps | | |
| Bit Rate Control | CBR/VBR | | |
| Bit Rate | Main Stream: Thermal: 100Kbps to 3Mbps, Optical: 100Kbps to 12Mbps Sub Stream: Thermal: 10Kbps to 3Mbps, Optical: 10Kbps 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 | | |
| Privacy Masking | 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, smart motion detection (these function support accurate detection of human or 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°C / ±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 Speaker | Support |
| Alarm Interface | 2ch input, 2ch output |
| RS-485 | Support |
| Reset Button | Support |
| SD Card Slot | Support, up to 256GB |
| Electrical | |
| Power Supply | 12DCV/24VDC/PoE (IEEE 802.3af) |
| Power Consumption | Max. 12W |
| 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 | 303 × 95 × 107mm (11.93 × 3.74× 4.21 inch) |
| Net Weight | 1.35Kg (2.98lb) |
| Ordering Information | |
| Model | Description |
| SN-TPC2553DRT-F3.5 | Thermal Focal Length: 3.5mm, Optical Focal Length: 4mm |
| SN-TPC2553DRT-F7 | Thermal Focal Length: 7mm, Optical Focal Length: 8mm |
| SN-TPC2553DRT-F10 | Thermal Focal Length: 10mm, Optical Focal Length: 8mm |

Dimensions (mm)



Accessories

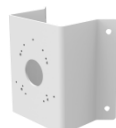
Optional:



SN-CBK645G
Junction Box



SN-CBK101A
Pole Mount



SN-CBK102A
Corner Mount



SN-CBK627D
Pole Mount