

SNTPT6436QFM

Thermal & Optical Bi-spectrum Mini PTZ Camera



Key Features

- 640 × 512 resolution, 12 μm , VOx UFPA, NETD ≤ 40 mK
- Thermal: 25mm motorized lens; Visible: 30x optical zoom module
- Detection capabilities: Human/vehicle, smoke & flame, and fire point detection
- Intelligent analytics: Intrusion, single/double line crossing, loitering, wrong-way, enter/leave area detection, smart motion detection, and people counting
- Support 3 temperature measurement rule types (spot, line, area)
- Temperature monitoring & alarm: -20°C to 150°C (-4°F to 302°F)
- Accuracy: $\pm 2^{\circ}\text{C}$ / $\pm 2\%$
- NDAA Compliance, IP66



Specification

| Camera | Thermal | Visible |
|---------------------------|---|---|
| Image Sensor | Vanadium Oxide Uncooled Focal Plane Arrays | 1/2.8" STARVIS CMOS |
| Resolution | Sensor is 640×512, Image can be scaled up to 1280×1024 | 2592 (H)×1520 (V), 4MP |
| Pixel Pitch | 12μm | |
| Spectral Range | 8 to 14μm | |
| NETD | ≤ 40mK | |
| Min. Illumination | | Color: 0.07 Lux @(F1.6, AGC ON), B/W: 0.007 Lux (F1.6, AGC ON) |
| Shutter Speed | | 1/5 to 1/100,000s |
| Lens Type | Fixed lens | 30x optical zoom |
| Focal Length | 25 mm | 5.3 to 159 mm |
| Max. Aperture | F1.0 | F1.6 |
| Focus Control | Motorized focus | Auto/Manual/Semi-automatic |
| Field of View (FOV) | H: 17°, V: 14° | H: 56.3° to 2.7°, V: 33.3° to 1.5° |
| IVS | | |
| AI Multi-Target | Human and Vehicle detection | Face / Human / Vehicle detection and capture |
| Intelligent Analysis | Intrusion, Single Line Crossing, Double Line Crossing, Loitering, Wrong-Way Detection, Enter Area, Leave Area, Smart Motion Detection Support alarm triggering by specified target types (human and vehicle) | Intrusion, Single Line Crossing, Double Line Crossing, Loitering, Wrong-Way Detection, Smart Motion Detection Support alarm triggering by specified target types (human and vehicle) |
| Smoke and Flame Detection | | Support |
| Fire Spot Detection | Support | |
| People Counting | Support | Support |
| Video and Audio | | |
| Stream/Frame Rate | Stream1: 1280×1204, 1280×720, 704×576 @25fps Stream2: D1, CIF @25fps | Stream1: 2592×1520, 2560×1440, 2304×1296, 1920×1080, 1280×720 @25/30fps Stream2: D1, VGA, CIF @25/30fps Stream3: VGA, CIF, QVGA @25/30fps |
| Bit Rate Control | CBR/VBR | CBR/VBR |
| Bit Rate | Stream1: 100 Kbps to 8 Mbps, Stream2: 100 Kbps to 6 Mbps | Stream1: 200 kbps to 12 Mbps Stream2: 100 kbps to 6 Mbps Stream3: 100 kbps to 3 Mbps |
| Region of Interest | Off/On (8 Zone, Rectangle) | Support |
| Audio Compression | G.711 A-law, G.711 μ-law, PCM | G.711 A-law, G.711 μ-law, PCM |
| Audio Bit Rate | 64 Kbps (G.711), 128 Kbps (PCM) | 64 Kbps (G.711), 128 Kbps (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 | |
| White Balance | | Auto / Tungsten / Fluorescent / Daylight / Shadow / Manual |
| Day/Night | | Auto / Day mode / Night mode / Timer |
| Noise Reduction | 2D/3D DNR | 2D/3D DNR |
| Image Enhancement | | WDR, HLC, BLC, Defog |
| Wide Dynamic Range | | True WDR |
| OSD | Up to 8 OSD | Up to 8 OSD |
| Privacy Masking | Support | Support |
| Illuminator | | White light: - Up to 30 m (98.4 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 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 | |
| PTZ | | |
| Pan/Tilt Range | Pan: 0° to 360° endless, Tilt: +90° to -90° | |
| Pan/Tilt Speed | Pan: 0.01° to 30°/s, Tilt: 0.01° to 10°/s | |
| Wiper | Support | |
| Preset Accuracy | ± 0.1° | |
| Presets | 400 | |
| Scan | 8 scans | |
| Patrol | 12 patrols, up to 32 presets per patrol | |
| Track | 6 tracks | |
| 3D Positioning | Support | |
| Speed Setup | Auto/Manual (0-8) | |
| Power Off Memory | Support | |
| Idle Motion | The time can be set (1-240 minutes), and functions such as preset positions, patrols, scans, and tracks can be run. | |
| Event | | |
| Alarm Triggers | IVS, Temperature anomaly, Motion detection, Alarm Input, Disk alarm, Network alarm, Abnormal sound detection | |
| Events Actions | Alarm out, Alarm record, SMTP, FTP upload, Audible alarm | |
| 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 | 2 Ethernet (10/100 Base-T) RJ-45 Connector |
| Audio Interface | 1ch Audio In, 1ch Audio Out |
| Alarm Interface | 1ch Alarm Out |
| RS-485 | 1 |
| SD Card Slot | Built-in, up to 512 GB |
| Reset Button | Built-in |
| General | |
| Language | English, Chinese, Traditional Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian, Japanese, Korean. Default: English |
| Power Supply | 24 VDC |
| Power Consumption | Max 40 W |
| Working Temperature / Humidity | -30°C to 60°C (-22°F to 140°F) Humidity: 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 | 323 × 192.5 × 177 mm (12.7 × 7.58 × 6.97 inch) |
| Net Weight | 5 Kg (11.0 lb) |
| Ordering Information | |
| Model | Description |
| SN-TPT6436QF-M25-ZSD30 | Thermal Focal Length: 25 mm Optical Focal Length: 5.3 to 159 mm, 30x optical zoom |

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 | 25 mm |
| Detection Distance (Humans: 1.8×0.5m) | 1,042 m (3,418.6 ft) |
| Detection Distance (Vehicles: 4×1.5m) | 3,194 m (10,479 ft) |
| Recognition Distance (Humans: 1.8×0.5m) | 260 m (853 ft) |
| Recognition Distance (Vehicles: 4×1.5m) | 799 m (2,621.4 ft) |
| Identification Distance (Humans: 1.8×0.5m) | 130 m (426.5 ft) |
| Identification Range (Vehicles: 4×1.5m) | 399 m (1,309 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 | 25 mm |
| VCA Detection Distance (Human: 1.8 × 0.5 m) | 101 m (331.4 ft) |
| VCA Detection Distance (Front/Rear of Vehicle: 4×1.5 m) | 230 m (754.6 ft) |
| Temperature Measurement (Object: 0.2 × 0.2m) | 83 m (272.3 ft) |
| Fire Detection (Object: 0.2 × 0.2m) | 208 m (682.4 ft) |

Visible 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 | 5.3 to 159 mm |
| DORI Distance (Detection) | 104 to 3,120 m (341.2 to 10,236.2 ft) |
| DORI Distance (Observe) | 41.6 to 1,248 m (136.5 to 4,094.5 ft) |
| DORI Distance (Recognize) | 20.8 to 624 m (68.2 to 2,047.2 ft) |
| DORI Distance (Identify) | 10.4 to 312 m (34.1 to 1,023.6 ft) |

Dimensions (mm)

