



SN-TPS4157ET-M

Thermal & Optical Bi-spectrum Network Speed Dome



Key Features

- 384 × 288 (the resolution of output image is 1280 × 720) resolution 12μm, VOx UFPA, NETD ≤ 40mK
- 25mm motorized focus thermal lens, 40x optical zoom lens
- Support human/vehicle detection
- Support fire point detection, smoking detection and smoke & fire detection
- Smart events: intrusion, single line crossing, double line crossing, loitering, wrong-way, people counting, enter area, leave area and smart motion detection
- Smart tracking: Cold/hot spot tracking, human/vehicle tracking
- Support 3 temperature measurement rule types (spot, line, area)
- Temperature range: -20°C to 150°C (-4°F to 302°F) or 0°C to 550°C (32°F to 1022°F)
- Smart Rain-Sensing Wiper, IP66

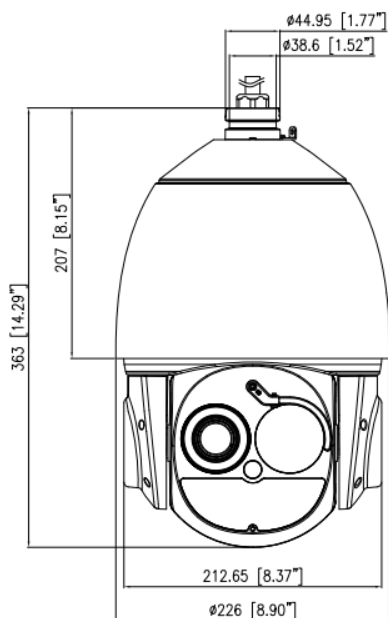
Specification

Thermal Module	
Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays
Resolution	Sensor is 384×288. Image can be scaled up to 1280×720
Pixel Pitch	12µm
NETD	≤ 40mK
Spectral Range	8 to 14 µm
Image Setting	Brightness, Sharpness, Contrast, Mirror, FFC control, 2D/3D DNR
Pseudo-color Setting	White-hot/Black-hot/Rainbow/Ironbow etc. up to 17 modes
Thermal Lens	
Focus Control	Motorized Focus
Focal Length	25mm
Aperture	F1.0
Angle of View	H: 10.5°, V: 7.9°
Detection Distance (Humans: 1.8×0.5m)	1,040 m (3,412.1 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)
<p>* 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.</p>	
Detection Range Table	
Temperature Measurement (Object: 1 × 1m)	417 m (1,368.1 ft)
Temperature Measurement (Object: 0.2 × 0.2m)	83 m (272.3 ft)
Fire Detection (Object: 1 × 1m)	1,042 m (3,418.6 ft)
Fire Detection (Object: 0.2 × 0.2m)	208 m (682.4 ft)
<p>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.</p>	
Optical Module	
Image Sensor	1/1.8" CMOS
Max. Resolution	2688 (H)×1520 (V), 4MP
Shutter Speed	1/5 to 1/20,000s
Min. Illumination	Color: 0.001 Lux @ (F1.5, AGC ON), B/W: 0.0001 Lux, 0 Lux with IR
WDR	True WDR

Focal Length	6.27 to 251mm, 40x optical zoom
Aperture	F1.5 to F4.8
Angle of View	H: 60.7° to 2.33°, V: 36.8° to 1.38°
Digital Zoom	16x
Focus Control	Auto/Manual/Semi-automatic
Mirror	Support
Defog	Support
Anti-shake	Support Gyroscope
Privacy Masking	Support
PTZ	
Pan/Tilt Range	Pan: 0° to 360° endless, Tilt: -10° to 90°
Pan Speed	Pan: 0.01° to 300°/s, preset speed: 300°/s
Tilt Speed	Tilt: 0.01° to 240°/s, preset speed: 240°/s
Wiper	Support
Preset Accuracy	≤ 0.2°
Presets	400
Scan	12 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.
Illuminator	
Illuminator Type	IR
Illumination Distance	Up to 300m (984.25ft)
Illumination Intensity And Angle	Automatically adjusted
Video and Audio	
Main Stream	Thermal: 1280×720, 704×576, 384×288 @ 25fps Optical: 2688×1520, 2560×1440, 2304×1296, 1920×1080, 1280×720 @ 25/30fps
Sub Stream	Thermal: 704×576, 384×288, 352×240 @ 25fps Optical: D1, VGA @ 25/30fps
Bit Rate Control	CBR/VBR
Bit Rate	Thermal: Main stream: 100Kbps to 8Mbps Sub stream: 100Kbps to 6Mbps Optical: Main stream: 100Kbps to 16Mbps, Sub stream: 100Kbps to 6Mbps
Region of Interest (Thermal)	Off/On (8 Zone, Rectangle)
Audio Compression	G711: 64kbps, RAW_PCM: 128kbps
Smart Function	
Smart Alarm	Motion detection, Disk alarm, I/O alarm, IVS alarm, Temperature detection & alarm
Smart Detection	Support human/vehicle detection, fire point detection, smoking detection and smoke & fire detection

Intelligent Analysis	Intrusion, Single line crossing, Double line crossing, Loitering, Wrong-way, Enter area, Leave area and Smart motion detection (these functions support accurate detection of human/vehicles)
People Counting	Support
Smart Tracking	Cold/hot spot tracking, human/vehicle tracking
Temperature Detection	
Temperature Detection	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%
Temperature Range	-20°C to 150°C (-4°F to 302°F) or 0°C to 550°C (32°F to 1022°F)
Network	
Protocols	IPv4/IPv6, HTTP, RTSP/RTP/RTCP, TCP/UDP, DHCP, DNS, DDNS, PPPoE, UPNP, ICMP, IGMP, FTP, NTP, SMTP, 802.1x, SNMP
Interoperability	ONVIF, SDK
Max. User Access	10 Users
Web Viewer	<IE11, Chrome, Firefox, Microsoft Edge
Web Language	English, Chinese, Polish, Italian, Portuguese, Spanish. Russian, French, Czech, Hungarian
Interface	
Network Interface	1 Ethernet (10/100 Base-T) RJ-45 Connector
Audio Interface	1ch Audio In, 1ch Audio Out
Alarm Interface	7ch Alarm In, 2ch Alarm Out
RS485	Support
BNC Output	Support
SD Card Slot	Built-in, up to 256GB
General	
Power Supply	24VAC/36VDC/PoE++ (802.3bt), Standard Equipped: 36VDC
Power Consumption	Max 45 W
Working Temperature	-40°C to 60°C (-40°F to 140°F)
Storage Conditions	0 to 90% RH
Certifications	CE /FCC
Ingress Protection	IP66
Casing	Metal
Dimensions	φ226 × 362.8mm (φ8.9 × 14.28 inch)
Net Weight	6 kg (13.2 lb)
Ordering Information	
Model	Description
SN-TPS4157ET-M25-ZSD40	Thermal Focal Length: 25mm Optical Focal Length: 6.27 to 251mm, 40x optical zoom

Dimensions (mm)



Accessories

Optional:



SN-CBK506B
Wall Bracket



SN-BK348A
Ceiling Bracket



SN-BK605
Corner Mount



SN-BK604B
Pole Mount



SN-BK367
Junction Box



SN-BK355
Wall Bracket



SN-BK358
Corner Mount



SN-BK359
Pole Mount