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 detection

- 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)
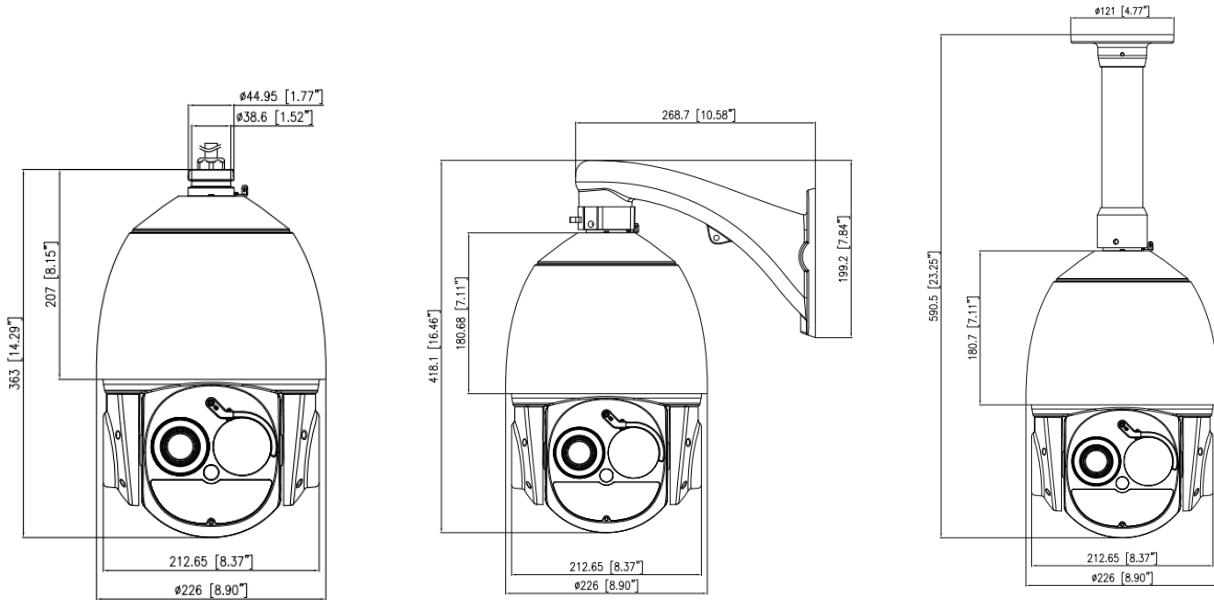
- IP66

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 (Fire: 1×1m)	1,042m (3418.6ft)
Detection Distance (Human: 1.8×0.5m)	1,040m (3,412.1ft)
Detection Distance (Vehicle: 4×1.5m)	3,194m (10,479ft)
Recognition Distance (Human: 1.8×0.5m)	260m (853.0ft)
Recognition Distance (Vehicle: 4×1.5m)	799m (2621.4ft)

Note: The detection ranges are calculated with Johnson's criteria and vary in different weather conditions.
*Product performance is based on testing in a controlled environment. Your results may vary due to several external and environmental factors.

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

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℃ / ±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, CGI, 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)
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	6kg (13.2lb)
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-BK349 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