



# SN-TPS4157ET-F

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
- 5/7/15mm 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

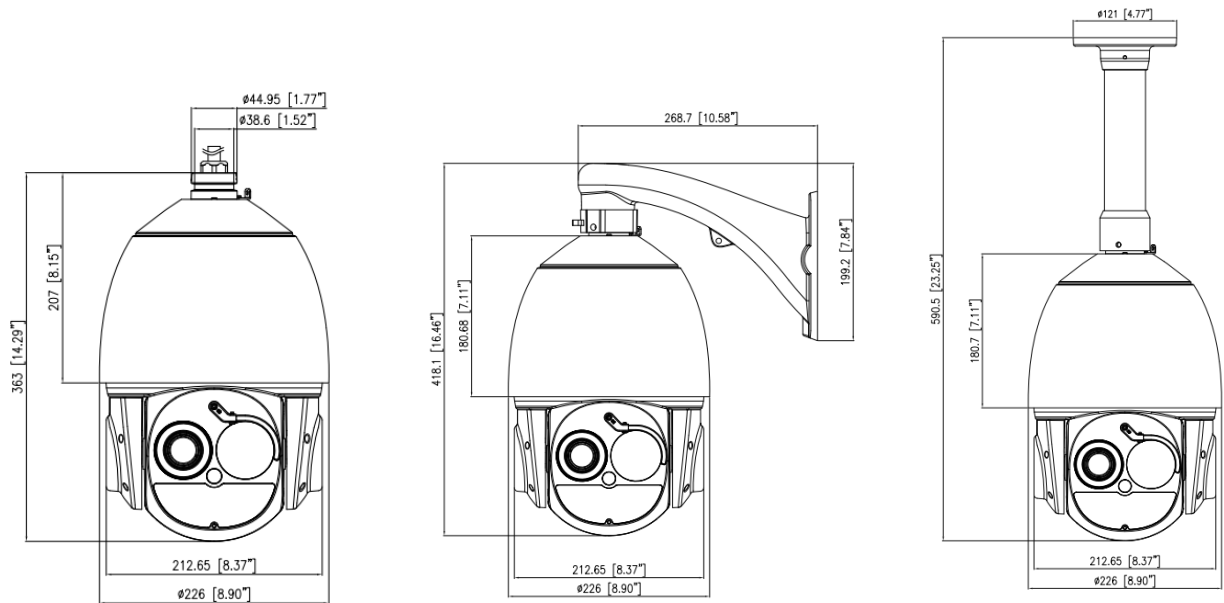
## Specification

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	Free Focus		
Focal Length	5mm	7mm	15mm
Aperture	F1.0	F1.0	F1.0
Angle of View	H: 56°, V: 40°	H: 44°, V: 33°	H: 21°, V: 16°
Detection Distance (Fire: 1×1m)	208m (682.4ft)	292m (958 ft)	625m (2,050.5ft)
Detection Distance (Human: 1.8×0.5m)	208m (682.4ft)	291m (954.7 ft)	624m (2,047.2ft)
Detection Distance (Vehicle: 4×1.5m)	639m (2,096.5ft)	894m (2933.1 ft)	1,917m (6,289.4ft)
Recognition Distance (Human: 1.8×0.5m)	52m (170.6ft)	73m (239.5 ft)	156m (511.8ft)
Recognition Distance (Vehicle: 4×1.5m)	160m (524.9ft)	224m (734.9 ft)	479m (1,571.5ft)
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
<b>PTZ</b>	
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.
<b>Illuminator</b>	
Illuminator Type	IR
Illumination Distance	Up to 300m (984.25ft)
Illumination Intensity And Angle	Automatically adjusted
<b>Video and Audio</b>	
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
<b>Smart Function</b>	
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℃ to 150℃ (-4°F to 302°F) or 0℃ to 550℃ (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℃ to 60℃ (-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-F5-ZSD40	Thermal Focal Length: 5mm Optical Focal Length: 6.27 to 251mm, 40x optical zoom
SN-TPS4157ET-F7-ZSD40	Thermal Focal Length: 7mm Optical Focal Length: 6.27 to 251mm, 40x optical zoom
SN-TPS4157ET-F15-ZSD40	Thermal Focal Length: 15mm 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