

# SN-TPS6457ED-M

**Bi-spectrum Radar-PTZ Linkage Speed Dome Camera** 



#### **Key Features**

- 640 × 512 (the resolution of output image is 1920 × 1080) resolution
- 12 $\mu$ m, VOx UFPA, NETD  $\leq$  40mK
- Thermal: 25mm motorized focus lens; Visible: 40x optical zoom module
- Support human/vehicle/ship, smoker, smoke & flame, fire point detection
- Intelligent analytics: Intrusion, single/double line crossing, loitering, wrong-way,
   enter/leave area detection, smart motion detection, and people counting
- Radar-PTZ linkage solution: realize the perfect combination of the video and radar
- Smart tracking: Cold/hot spot tracking, human/vehicle and ship tracking
- Support 3 temperature measurement rule types (spot, line, area)
- Temperature monitoring & alarm: -20°C to 150°C (-4°F to 302°F), Accuracy: ±8°C
- Smart IR range up to 300m
- Smart Rain-Sensing Wiper, IP66

# **Specification**

Camera	Thermal	Visible
Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays	1/1.8" STARVIS™ CMOS
Resolution	Sensor is 384×288. Image can be scaled up to 1280×720	2688 (H)×1520 (V), 4MP
Pixel Pitch	12µm	
Spectral Range	8 to 14μm	
NETD	≤ 40mK	
Min. Illumination		Color: 0.001 Lux @(F1.5, AGC ON), B/W: 0.0001 Lux (F1.5, AGC ON), 0 Lux with light
Shutter Speed		1/5 to 1/20,000s
Lens Type	Fixed lens	40x optical zoom
Focal Length	25 mm	6.27 to 251 mm
Max. Aperture	F1.0	F1.5
Focus Control	Motorized focal	Auto/Manual/Semi-automatic
Field of View (FOV)	H: 17°, V: 14°	H: 60.7° to 2.33°, V: 36.8° to 1.38°
IVS		
Al Multi-Target	Human / Vehicle / Ship detection	Human / Vehicle detection
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, Enter Area, Leave Area, Smart Motion Detection Support alarm triggering by specified target types (human and vehicle)
Smoke and Flame Detection		Support
Smoker Detection	Support	
Fire Spot Detection	Support	
People Counting	Support	Support
Smart Tracking	Cold/hot spot tracking, human/vehicle/ship tracking	
Video and Audio		
Main Stream	1920×1080, 1280×1024, 1280×720, 640×512 @25fps	2688×1520, 2560×1440, 2304×1296, 1920×1080, 1280×720 @25/30fps
Sub Stream	D1, VGA, 640×512, CIF @25fps	D1, VGA @25/30fps
Bit Rate Control	CBR/VBR	CBR/VBR
Bit Rate	Main Stream: 100Kbps to 12Mbps, Sub Stream: 100Kbps to 6Mbps	Main Stream: 100Kbps to 16Mbps Sub Stream: 100Kbps to 6Mbps
Smart Encode	Support	Support
Audio Compression	G.711 A-law, G.711 μ-law, RAM PCM	G.711 A-law, G.711 μ-law, RAM 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	

Gain Control         Auto / Tungsten / Fluorescent / Daylight / Shadow           Day/Night         Income and the property of the property				
Day/Night         Day mode / Night mode / Time           Noise Reduction         20/30 DNR         20/30 DNR           Image Enhancement         VEX. PLANCE (LECTION CONTINUE)         WDR. PLUC (LECTION CONTINUE)           Wide Dynamic Range         VEX. PLANCE (LECTION CONTINUE)         Up to 8 OSD           Privacy Masking         Up to 8 OSD         Up to 4 areas         Up to 4 areas           Illuminator         IR Range:	Gain Control		Auto / Manual	
Noise Reduction Image Enhancement Wide A programmic Range OSO Up to 8 OSD Up to 4 areas Illuminator I	White Balance		Auto / Tungsten / Fluorescent / Daylight / Shadow	
Image Enhancement Wide Dynamic Range Up to 8 OSD Rivacy Masking Up to 4 areas Up to 4 areas Ri Range: "Up to 3 OSD (84 Z5ft) Up to 3 OSD (84 Z5ft)  Temperature Range 20°C to 150°C ("4" ft o 302" f)  Accuracy 28°C Temperature Range 20°C to 150°C ("4" ft o 302" f)  Accuracy 28°C Temperature Display Display in the lower left corner, follow the cursor display of the highest temperature, lowest temperature or average temperature Up to 3 Osm (98 A 25ft) Up to 4 Osm (98 A 25ft) Up to 5 Osm (98 A 25ft) Up to 4 O	Day/Night		Day mode / Night mode / Time	
Wide Dynamic Range  OSD  Up to 8 OSD  Privacy Masking  Up to 4 areas  Illuminator	Noise Reduction	2D/3D DNR	2D/3D DNR	
OSD         Up to 8 OSD         Up to 8 OSD           Privacy Masking         Up to 4 areas         Up to 4 areas           Illuminator         IR Range: - Up to 300m (984-25ft)           Temperature Range           2-20°C to 150°C (4°F to 302°F)         - Properature Range           Accuracy         48°C           Temperature Detection         3 temperature measurement rule types, 20 rules in total, 1 full screen, 19 others (spot, areas, line).           Temperature Display         Display in the lower left corner; follow the cursor display of the highest temperature, lowest temperature or average temperature.           Image Fusion           Fusion view of thermal view and overlaid details of the optical channel           Event           Alarm Triggers           Vi/S, Temperature anomally, Motion detection, Alarm Input, Disk alarm, Network alarm, Abnormal sound detection           Revent Actions         Alarm out, Alarm record, SMTP, FTP upload, Audible alarm output           Fight Part (1) is an out to 300°/s, preset speed: 300°/s           Panil Roll Till Speed         Pani: 0.01° to 300°/s, preset speed: 240°/s           Vilper         Support           Presets         400           Scan         12 parols, up to 32 presets per patrol           Track         6 tracks           3 Des	Image Enhancement		WDR, HLC, BLC	
Privacy Masking Up to 4 areas Up to 4 areas  Illuminator IR Range: - Up to 300m (984.25ft)  Thermal Function  Temperature Range -20°C to 150°C (-4°F to 302°F)  Accuracy 48°C  Temperature Detection 3 temperature measurement rule types, 20 rules in total, 1 full screen, 19 others (spot, areas, line).  Temperature Display by 150 and 15	Wide Dynamic Range		True WDR 120dB	
Thermal Function  Temperature Range -20°C to 150°C (-4°F to 302°F) Accuracy 48°C Temperature Range -20°C to 150°C (-4°F to 302°F) Accuracy 48°C Temperature Detection 3 temperature measurement rule types, 20 rules in total, 1 full screen, 19 others (spot, areas, line).  Temperature Display bisplay in the lower left corner; follow the cursor display of the highest temperature, lowest temperature or average temperature.  Image Fusion Fusion in Fusion view of thermal view and overlaid details of the optical channel  Event  Event  Fusion view of thermal view and overlaid details of the optical channel  Event Actions Alarm out, Alarm record, SMTP, FTP upload, Audible alarm output  FTZ  Pan/Tilk Range Pan: 0'to 360° endless, Tilt: -10° to 90° (auto-flip) Pan Speed Pan: 0.01° to 360° endless, Tilt: -10° to 90° (auto-flip) Pan Speed Pan: 0.01° to 240°/s, preset speed: 300°/s Tilt Speed Tilt: 0.01° to 240°/s, preset speed: 240°/s  Wiper Support Support  Preset Accuracy \$0.2°  Presets 400 Scan 12 scans Patrol 12 patrols, up to 32 presets per patrol  Track 6 tracks 3D Postitoning 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.  Protocols Qos, 80.21x, SNMP, Mullicast Compatible Integration ONVIF (Profile S/T/G/M), CGI, SDK  Max Concurrent Streams 10 channels  Up to 98 users, 3 levels: Administrator, Operator, Media user	OSD	Up to 8 OSD	Up to 8 OSD	
Thermal Function Temperature Range -20°C to 150°C (-4°F to 302°F) Accuracy 48°C Temperature Detection 3 temperature measurement rule types, 20 rules in total, 1 full screen, 19 others (spot, areas, line). Temperature Display bigolay in the lower left corner; follow the cursor display of the highest temperature, lowest temperature or average temperature. Image Fusion Fusion Fusion in wind thermal view and overlaid details of the optical channel Event  Event  Alarm Triggers Institute of Alarm out, Alarm record, SMTP, FTP upload, Audible alarm output  PTZ  Pan/Till Range Pan-00° to 360° endiess, Tilt: -10° to 90° (auto-flip) Pan Speed Pan-00° to 360° endiess, preset speed: 300°/s Till: Speed Till: 0.01° to 240°/s, preset speed: 240°/s  Wiper Support  Preset Accuracy \$0.2° Preset Accur	Privacy Masking	Up to 4 areas	Up to 4 areas	
Thermal Function           Temperature Range         -20°C to 150°C (-4°F to 302°F)           Accuracy         ±8°C           Temperature Detection         3 temperature measurement rule types, 20 rules in total, 1 full screen, 19 others (spot, areas, line).           Temperature Display         Display in the lower left corner; follow the cursor display of the highest temperature, lowest temperature or average temperature           Image Fusion         Fusion view of thermal view and overlaid details of the optical channel           Event         ************************************	Illuminator		<u> </u>	
Accuracy #8°C Temperature Detection 3 temperature measurement rule types, 20 rules in total, 1 full screen, 19 others (spot, areas, line).  Temperature Display Display in the lower left corner; follow the cursor display of the highest temperature, lowest temperature or average temperature Image Fusion Fusion Evisor wew of thermal view and overlaid details of the optical channel  Event  Alarm Triggers Visor Alarm neut, Disk alarm, Network alarm, Abnormal sound detection  Event Actions Alarm out, Alarm record, SMTP, FTP upload, Audible alarm output  PTZ  Pan/Tilt Range Pan: 0° to 360° endiess, Tilt: -10° to 90° (auto-flip)  Pan Speed Pan: 0° to 360° endiess, Tilt: -10° to 90° (auto-flip)  Pan Speed Pan: 0° to 360° endiess, Tilt: -10° to 90° (auto-flip)  Preset Accuracy Support  Tilt: 50° Support  Preset Accuracy 40° Support  Preset Accuracy 40° Support  Prack 40° 40° 40° 40° 40° 40° 40° 40° 40° 40°	Thermal Function			
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Image Fusion Fusion view of thermal view and overlaid details of the optical channel  Fuent  Alarm Triggers VIS, Temperature anomaly, Motion detection, Alarm Input, Disk alarm, Network alarm, Abnormal sound detection  Event Actions Alarm out, Alarm record, SMTP, FTP upload, Audible alarm output  PTZ  Pan/Tilt Range Pan: 0° to 360° endiess, Tilt: -10° to 90° (auto-flip)  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°  Preset Accuracy \$ 0.2°  Preset Accuracy \$ 12 scans  Patrol 12 patrols, up to 32 presets per patrol  Track 6 tracks  3D Positioning Support  Support  Support  Track 10 tracks 6 tracks  Dever Off Memory Support  Idle Motion be run.  Network  Protocols QoS, 802.1x, SNMP, Multicast  Compatible Integration ONVIF (Profile S/T/G/M), CGI, SDK  Max Concurrent Streams 10 channels  Up to 98 users, 3 levels: Administrator, Operator, Media user	Temperature Detection	3 temperature measurement rule type	es, 20 rules in total, 1 full screen, 19 others (spot, areas, line).	
Alarm Triggers IVS, Temperature anomaly, Motion detection, Alarm Input, Disk alarm, Network alarm, Abnormal sound detection  Event Actions Alarm out, Alarm record, SMTP, FTP upload, Audible alarm output  PTZ  Pan/Tilt Range Pan: 0° to 360° endless, Tilt: -10° to 90° (auto-flip)  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°  Preset Accuracy \$0.2°  Preset Accuracy \$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.  Network  Protocols Penylipe A, TTP/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  Up to 98 users, 3 levels: Administrator, Operator, Media user	Temperature Display			
Alarm Triggers alivs, Temperature anomaly, Motion detection, Alarm Input, Disk alarm, Network alarm, Abnormal sound detection  Preservations alives, Title -10° to 90° (auto-flip)  Pan Speed Pan: 0° to 360° endless, Title -10° to 90° (auto-flip)  Pan Speed Pan: 0.01° to 300°/s, preset speed: 300°/s  Titl Speed Title .010° to 240°/s, preset speed: 240°/s  Wiper Support  Preset Accuracy 50.2°  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.  Protocols 1Pv4/IPv6, HTTP/HTTPS, DNS, DDNS, DHCP, PPPOE, RTSP/RTP/RTCP, TCP/UDP, NTP, ARP, UPnP, FTP, SMTP, Oos, 802.1x, SNMP, Multicast  Compatible Integration ONVIF (Profile S/T/G/M), CGI, SDK  Max Concurrent Streams 10 channels  User/Host Level Upto 98 users, 3 levels: Administrator, Operator, Media user	Image Fusion	Fusion view of thermal view and overl	Fusion view of thermal view and overlaid details of the optical channel	
Alarm Higgers         detection           Event Actions         Alarm out, Alarm record, SMTP, FTP upload, Audible alarm output           PTZ           Pan/Tilt Range         Pan: 0" to 360" endless, Tilt: -10" to 90" (auto-flip)           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"           Persets         400           Scan         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.           Network           Protocols         [Pv4/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         Up to 98 users, 3 levels: Administrator, Operator, Media user	Event			
Pan/Tilt Range Pan: 0° to 360° endless, Tilt: -10° to 90° (auto-flip) 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 Devenue and be set (1-240 minutes), and functions such as preset positions, patrols, scans, and tracks can be run.  Network Protocols Phyd/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 Up to 98 users, 3 levels: Administrator, Operator, Media user	Alarm Triggers			
Pan/Tilt Range       Pan: 0° to 360° endless, Tilt: -10° to 90° (auto-flip)         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°         Persets       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.         Network       Protocols         Compatible Integration       ONVIF (Profile S/T/G/M), CGI, SDK         Max Concurrent Streams       10 channels         User/Host Level       Up to 98 users, 3 levels: Administrator, Operator, Media user	Event Actions	Alarm out, Alarm record, SMTP, FTP u	Alarm out, Alarm record, SMTP, FTP upload, Audible alarm output	
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.         Network       Protocols       QoS, 802.1x, SNMP, Multicast         Compatible Integration       ONVIF (Profile S/T/G/M), CGI, SDK         Max Concurrent Streams       10 channels         User/Host Level       Up to 98 users, 3 levels: Administrator, Operator, Media user	PTZ			
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.  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 Up to 98 users, 3 levels: Administrator, Operator, Media user	Pan/Tilt Range	Pan: 0° to 360° endless, Tilt: -10° to 90	Pan: 0° to 360° endless, Tilt: -10° to 90° (auto-flip)	
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.         Network       Protocols         Compatible Integration       ONVIF (Profile S/T/G/M), CGI, SDK         Max Concurrent Streams       10 channels         User/Host Level       Up to 98 users, 3 levels: Administrator, Operator, Media user	Pan Speed	Pan: 0.01° to 300°/s, preset speed: 30	Pan: 0.01° to 300°/s, preset speed: 300°/s	
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.  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 Up to 98 users, 3 levels: Administrator, Operator, Media user	Tilt Speed	Tilt: 0.01° to 240°/s, preset speed: 240	Tilt: 0.01° to 240°/s, preset speed: 240°/s	
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.  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 Up to 98 users, 3 levels: Administrator, Operator, Media user	Wiper	Support	Support	
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.  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 Up to 98 users, 3 levels: Administrator, Operator, Media user	Preset Accuracy	≤ 0.2°	≤ 0.2°	
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.  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 Up to 98 users, 3 levels: Administrator, Operator, Media user	Presets	400	400	
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.  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 Up to 98 users, 3 levels: Administrator, Operator, Media user	Scan	12 scans	12 scans	
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.  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 Up to 98 users, 3 levels: Administrator, Operator, Media user	Patrol	12 patrols, up to 32 presets per patrol	12 patrols, up to 32 presets per patrol	
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.  Network  Protocols 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 Up to 98 users, 3 levels: Administrator, Operator, Media user	Track	6 tracks	6 tracks	
Power Off Memory  Idle Motion  The time can be set (1-240 minutes), and functions such as preset positions, patrols, scans, and tracks can be run.  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  Up to 98 users, 3 levels: Administrator, Operator, Media user	3D Positioning	Support	Support	
Idle Motion  The time can be set (1-240 minutes), and functions such as preset positions, patrols, scans, and tracks can be run.  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  Up to 98 users, 3 levels: Administrator, Operator, Media user	Speed Setup	Auto/Manual (0-8)	Auto/Manual (0-8)	
Network  Protocols	Power Off Memory	Support	Support	
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  Up to 98 users, 3 levels: Administrator, Operator, Media user	Idle Motion			
QoS, 802.1x, SNMP, Multicast  Compatible Integration ONVIF (Profile S/T/G/M), CGI, SDK  Max Concurrent Streams 10 channels  User/Host Level Up to 98 users, 3 levels: Administrator, Operator, Media user	Network			
Max Concurrent Streams 10 channels  User/Host Level Up to 98 users, 3 levels: Administrator, Operator, Media user	Protocols			
User/Host Level Up to 98 users, 3 levels: Administrator, Operator, Media user	Compatible Integration	ONVIF (Profile S/T/G/M), CGI, SDK	ONVIF (Profile S/T/G/M), CGI, SDK	
	Max Concurrent Streams	10 channels	10 channels	
Security IP address filter, encrypted HTTPS, Illegal login lock, IEEE 802.1x	User/Host Level	Up to 98 users, 3 levels: Administrator	Up to 98 users, 3 levels: Administrator, Operator, Media user	
	Security	IP address filter, encrypted HTTPS, Ille	IP address filter, encrypted HTTPS, Illegal login lock, IEEE 802.1x	

Web Viewer	<ie11, chrome,="" edge<="" firefox,="" microsoft="" th=""></ie11,>	
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	
RS-485	Support	
BNC Interface	1 (CVBS output for visible)	
SD Card Slot	Built-in, up to 1TB	
General		
Web Language	English, Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian, Japanese, Korean.  Default: English	
Power Supply	24VAC/36VDC/PoE++ (802.3bt), Standard Equipped: 36VDC	
Power Consumption	Max 45 W	
Working Temperature and Humidity	-40°C to 60°C (-40°F to 140°F) Less than 90% RH	
Certifications	CE-EMC (EN 55032:2015+A1:2020, EN 55035:2017+A11:2020, EN 50130-4:2011+A1:2014, EN 61000-6-3:2007+A1:2011+AC:2012, EN IEC 61000-3-2:2019, EN 61000-3-3:2013+A1:2019)  CE-LVD (EN 62368-1:2014+A11:2017)  FCC (FCC 47 CFR 15, Subpart B, ANSI C63.4-2014)	
Ingress Protection	IP66	
Material	Metal	
Dimensions	ф226 × 363 mm (ф8.9 × 14.29 inch)	
Net Weight	6 kg (13.2 lb)	
Ordering Information		
Model	Description	
SN-TPS6457ED-M25-ZSD40	Thermal Focal Length: 25mm Optical Focal Length: 6.27 to 251mm, 40x 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 (Human: 1.8×0.5m)	1,042 m (3,418.6 ft)
Detection Distance (Vehicle: 4×1.5m)	3,194 m (10,479 ft)
Recognition Distance (Human: 1.8×0.5m)	260 m (853 ft)

Recognition Distance (Vehicle: 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)	205 m (672.6 ft)
VCA Detection Distance (Front/Rear of Vehicle: 4×1.5 m)	300 m (984.3 ft)
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)

#### **Visible DORI Range Table**

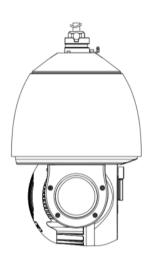
**Note**: DORI (Detect, Observe, Recognize, and Identify) is a standard system (EN-62676-4) for defining the ability of a person viewing the video to distinguish persons or objects within a covered area. The numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and commissioning manual/project design tool.

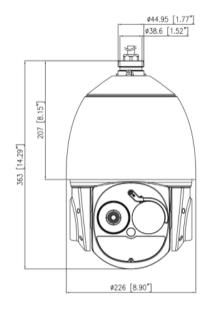
DORI Distance	
Lens	6.27 to 251 mm
Detection	95 to 3,515 m (311.68 to 11,532.15 ft)
Observe	38 to 1,406 m (124.67 to 4,612.86 ft)
Recognize	19 to 703 m (62.34 to 2,306.43 ft)
Identify	9.5 to 351.5 m (31.17 to 1,153.22 ft)

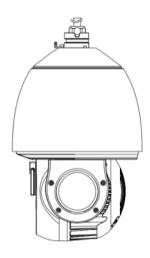
## **Radar (optional)**

Radar		
Model	SN-SMWR02A	SN-SMWR03A
Picture	į	j.
Working Frequency	24GHz K-Band	24.00 to 24.1GHz
Modulation Waveform	FMCW (Frequency-Modulated Continuous-Wave)	FMCW (Frequency-Modulated Continuous-Wave)
Scan Frequency	8 Hz	8 Hz
Horizontal Detection Angle	90°	90°
Vertical Detection Angle	13°	13°
Max. Detectable Targets	Up to 32 targets	Up to 32 targets
Detection Target Type	Human, Vehicle	Human, Vehicle
Detection Distance	Human: Up to 150 m (492.1 ft), Vehicle: Up to 180 m (590.6 ft)	Human: Up to 450 m (1476.4 ft), Vehicle: Up to 600 m (1968.5 ft)
Distance Resolution	1 m (3.28 ft)	1.5 m (4.92 ft)
Distance Measurement Accuracy	± 0.5 m (1.64 ft)	± 0.75 m (2.46 ft)
Angle Accuracy	± 1°	± 1°
Speed Measuring Range	0.5 to 30 m/s	0.5 to 30 m/s
Speed Measuring Accuracy	0.03 m/s	0.006 m/s
Speed Resolution	0.06 m/s	0.003 m/s
EIRP	22 dBm	37 dBm
Network Interface	1 RJ45 10M/100M (PoE)	1 RJ45 10M/100M (PoE)
Alarm Interface	2ch output, 1ch input	1ch output
RS485	Support	Support
Relay	2ch output	-
Power Consumption	9W	17W
Power Supply	12VDC/PoE (802.3af)	12VDC/PoE+ (802.3at)
Dimension	194 × 158 × 49 mm	235 × 175 × 47.5 mm

### **Dimensions (mm)**







#### **Accessories**

#### **Optional:**



SN-CBK506B Wall Bracket



SN-BK367 Junction Box



SN-BK348A Ceiling Bracket



SN-BK355 Wall Bracket



SN-BK605 Corner Mount



SN-BK358 Corner Mount



SN-BK604B Pole Mount



SN-BK359 Pole Mount