

T AI Ruggedized PTZ Camera

TNP-A9430RW / TNP-A7430RW / TNP-A6550RW
TNP-A9430RWB / TNP-A7430RWB / TNP-A6550RWB ('26.1Q)



Operating Temperature Max Temp 60°C Min Temp -50°C	Water / Dust Resistance IP68	Anti-icing Window and Pan Heater	Wind Load Pan/Tilt 160mph 257km/h	Image Stabilization OIS + DIS * TNP-A6550RW Supports Only DIS	MIL-STD-810H and NEMA TS2
Various Resolution Options 2MP 4MP 8MP	Optical Zoom 43x 55x Zoom	Adaptive IR Length: 1640.42 ft (500m)	Wide Tilt Range 165°	High Accuracy ±0.07°	Seamless Auto-tracking
Wisenet 9 (Dual NPU) 		Software and Cloud → Compatible Cloud Service ONCloud / HealthPro / SightMind → Sales Support Tools DesignPro / Wisenet Device Manager		Next Level Cybersecurity - Secure Element (FIPS 140-3 Level3 / CC EAL6) - EN 303 645 Certified - SBOM - IP and Mac Filtering - Admin Login TimeOut	
Analytic Line Crossing IVA area Slip and Fall Detection Support Sound Classification		All Attributes Person Center / Top color Bottom color / Bag Face Mask / Glasses / Age License Plate		Best Shot Smart Object Detection	Dynamic Privacy Masking Adaptive Privacy Shield

Our 1st Ruggedised PTZ: New Design



Operating Temperature

Operating Temperature : **-50°C ~ +60°C** (-58°F ~ +140°F)

* TS2 extended temperature range up to +74C



Water and Dust Resistance



Anti-icing

Minimum operating temperature: **-50°C**



Wind Load

Withstands sustained wind loads up to 160mph without damage

Maintains pan/tilt position at speeds up to 160mph

Executes PTZ operations at speeds up to 160mph



Rugged Construction

MIL-STD-810H

(Military-Grade Durability, U.S. Department of Defense Standard)

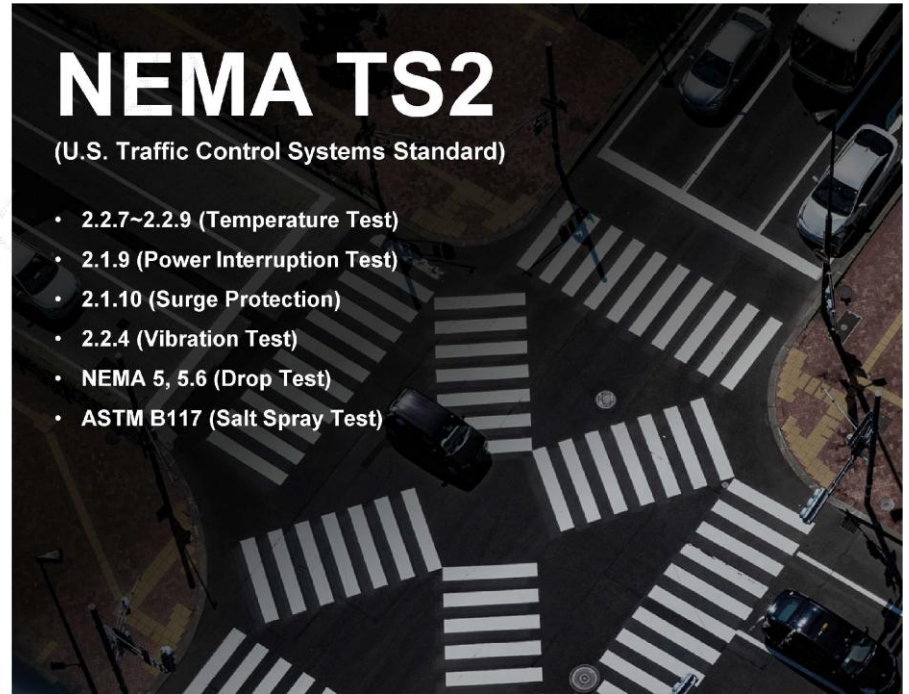
- 501.7 (High Temperature)
- 502.7 (Low Temperature)
- 503.7 (Temperature Shock)
- 505.7 (Solar Radiation)
- 506.6 (Rain)
- 507.6 (Humidity)
- 509.7 (Salt Fog)
- 510.7 (Sand and Dust)
- 521.4 (Icing/Freezing Rain)



NEMA TS2

(U.S. Traffic Control Systems Standard)

- 2.2.7~2.2.9 (Temperature Test)
- 2.1.9 (Power Interruption Test)
- 2.1.10 (Surge Protection)
- 2.2.4 (Vibration Test)
- NEMA 5, 5.6 (Drop Test)
- ASTM B117 (Salt Spray Test)



Optical Zoom

Overwhelming zoom ratio compared to competitors

2M 55x, focal length = 4.75mm – 262mm

* Zoom capability depends on sensor resolution.

* 2MP: 55x / 4MP and 8MP: 43x optical zoom.



Adaptive IR

Tele(L)
Tele(S)
Wide
Medium
Tele(M)

Provides Clear Images

Adaptive IR provides optimal IR brightness based on the surveillance distance, ensuring the entire screen appears evenly bright and clear.

0 ~ 75 ft 0 ~ 23 m	75 ~ 144 ft 23 ~ 44 m	144 ~ 233 ft 44 ~ 71 m	233 ~ 325 ft 71 ~ 99 m	325 ~ 453 ft 99 ~ 138 m	453 ~ 636 ft 138 ~ 194 m	636 ~ 1640 ft 194 ~ 500m
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Adaptive IR Detailed Range

Medium	0 ~ 75 ft	0 ~ 23 m
Medium + Wide	75 ~ 144 ft	23 ~ 44 m
Wide	144 ~ 233 ft	44 ~ 71 m
Wide + Tele(S)	233 ~ 325 ft	71 ~ 99 m
Tele(S)	325 ~ 453 ft	99 ~ 138 m
Tele(S) + Tele(M)	453 ~ 636 ft	138 ~ 194 m
Tele(M) + Tele(L)	636 ~1640 ft	194 ~ 500 m

Canted mode Support

Full-Area Visibility

From Sky to Ground No Blind Spots



* This image is a simulated image for illustrative purposes.

Fastest in Class: Pan/Tilt Speed Comparison

Pan/Tilt Speed of Competitor

Rapid motion

90°/s

Ultra-slow precision

0.2°/s

Vs.

Pan/Tilt Speed of T AI Ruggedized PTZ Camera

Rapid motion

160°/s

Ultra-slow precision

0.024°/s

Improved Preset Accuracy



Status Monitoring

Diagnostics

Monitoring factor	Details								
Firmware version	25.00.33_20250723_R290								
CPU usage (%)	15.98%								
Power (Watts)	20.48W								
Cumulative usage time	0008W_01D_18H_37M_06S								
Continuous operation time	0000W_00D_07H_44M_33S								
Cloud connection status	Disconnected								
Profile access	<table><tr><th>Profile</th><th>Bitrate</th><th>Network connection status</th><th>IP address</th></tr><tr><td></td><td></td><td></td><td></td></tr></table>	Profile	Bitrate	Network connection status	IP address				
Profile	Bitrate	Network connection status	IP address						
Fan motor rotation count	1893rev								
Tilt motor rotation count	24rev								
Wiper operation count	9 Reset								
Temperature °C	Body: 37.48°C Head: 35.09°C Window: 31.1°C								
Humidity	Body: 29.41% Head: 30.84% Window: 33.18%								
Recording status	SD Card Status: Removed NAS Status: Disconnected								
App status	WiseAI Application name: WiseAI% Status: Running%								

Status Monitoring

Smart monitoring of internal metrics and system connectivity
So you can act before issues arise.



Easy Installation

Step 1.

Secure the installation base to the mounting surface.



Step 2.

Insert the camera unit vertically, aligned with the guide mark.



Step 3.

Turn the camera clockwise to lock, then push in the network connector.



Step 4.

Tighten 4 upper screws, then 2 lower network screws.



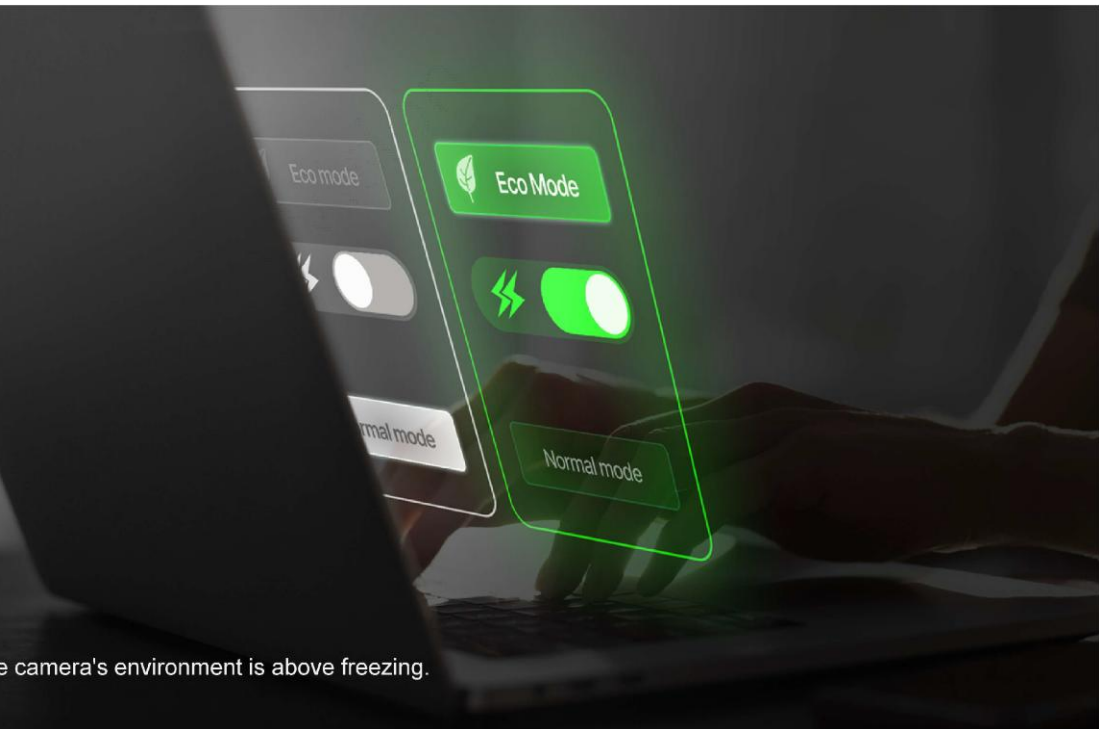
Compatible Installation Solutions



Power Saving

Support Eco Mode

- IR visibility may be reduced by up to 50%
- All heaters except the window heater are disabled
- It's best to use Eco mode when the temperature of the camera's environment is above freezing.



AI Revolution at the Edge

- The Power of In-house SoC
- T AI Ruggedized PTZ Camera with Wisenet 9
- Dual NPU
- AI based Image Enhancement
- Low Light Performance
- ExtremeWDR Performance
- AI based Bandwidth Reduction, WiseStream





- ## Alarm

A diagram showing a pair of opposite charges. On the left is a blue circle with a minus sign (-) and on the right is a red circle with a plus sign (+). Blue dashed lines with arrows represent electric field lines pointing from the positive charge to the negative charge.



Dynamic Privacy Masking



Powerful Event Rule and Action



ESG Management

REACH Compliance

Duty to Communicate information on Substances in Articles (Article 33)

RoHS Compliance

Disclose environmental information on all our products

Green Purchasing Policy

Put our priority on the environment and introduce sustainable system for corporate environment management

* Covered countries : Democratic Republic of the Congo and its adjoining countries

Eco Product

Design the process so as to ensure the products contain no hazardous substances

Use Sustainable Material

Use material which get PEFC certified for quick guide.

Conflict Minerals Policy

Our policy is to eliminate the use of conflict minerals contained in our products that directly or indirectly finance or benefit armed groups in the "covered countries"



Next Level Cybersecurity



Security Certificate

- Secure element (with FIPS 140-3, CC EAL6+)
- EN 303 645 standard



OS/Firmware Protect

- Secure boot
- Signed firmware
- Firmware encryption



User Authentication

- Digest Authentication
- Prevent brute-force attack



Network Authentication

- 802.1X Authentication (EAP-TLS, EAP-LEAP, EAP-PEAP, MSCHAPv2)



Secure Communication

- HTTPS
- SRTP
- WSS(WebSocket secure)



Access Control

- IP and MAC filtering
- Admin login timeout



Data Protect

- Encryption Credentials
- Encrypt compress for live recording file export



Audit

- User Access/System/Event log management



Device ID

- Device Certificate (Hanwha Vision Root CA)



Secure Storage

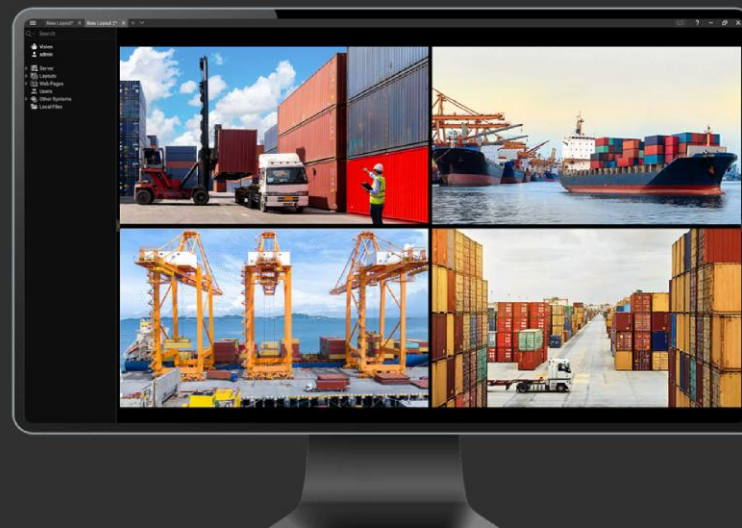
- Secure element
- SD card partition encrypt



Supply Chain Security

- SBOM

Compatible VMS



Hanwha Vision Plug-in

◆ milestone Genetec

* Search for object detection events of AI cameras and playback of videos

◆ milestone Genetec Wisenet WAVE NVR

* Supports receiving real-time events and searching for events.

TNP Specifications

		TNP-A6550RW	TNP-A7430RW	TNP-A9430RW
Imaging Device	Size	1/2.8"	1/1.8"	
Resolution		2MP	4MP	8MP
Min. Illumination (Lux)	Color(1/30sec, 30IRE)	0.02Lux(F1.6, 1/30sec)	0.04 Lux(F1.69, 1/30sec)	0.06 Lux(F1.69, 1/30sec, 30 IRE)
	BW(1/30sec, 30IRE)	0.002 lux (1/30sec,F1.6), 0Lux(IR LED On)	0.004 Lux(1/30sec, F1.69), 0Lux (IR LED On)	0.006 Lux(1/30sec, F1.69), 0Lux (IR LED On)
Zoom Ratio	Optical	55	43	
Pan / Tilt / Rotate Range	Pan	360° Endless		
	Tilt	Upright: 140°(50°~90°), Canted: 165°(75°~90°), Inverted: 140°(90°~50°)		
Pan / Tilt Speed	Manual	0.024°/sec~160°/sec		
Image Stabilization		DIS	OIS and DIS	
Privacy Masking		Solid and Dynamic privacy mask		
Installation Direction		Upright, Inverted, Canted		
Light Viewable Length	IR	1,640.42ft(500m)		
Water Removal		Support(with Wiper)		
Ice Removal		Window, Pan		
Classified Object Type		Person, Face, Vehicle, License plate		
Attributes	Person	Upper/Lower clothes color, Gender, Bag, Type(car, bus, truck, motorcycle, bicycle), Color, Age, Gender, Face mask, Glasses		
Analytics Events	Based on AI Engine	Object detection, Virtual line(Crossing/Direction), Motion detection, Slip and fall detection, Virtual area(Loitering/Intrusion/Enter/Exit/Appear/Disappear), Auto tracking		
Operating Condition	Temperature	-58°F ~ +140°F(-50°C ~ +60°C)		
Wind Load		Sustained 257km/h (160mph)		
Input Voltage		PoE++(IEEE802.3bt type4, Class8)		
Power Consumption	PoE	Max 71W, Typical 28.3W	Max 71W, Typical 33.2W	Max 71W, Typical 33.2W
Wisepower		Power mode, Power monitoring, ECO mode		
Wisepower		IP68/66, IK10(housing)		
EMC		EN 50121-4, FCC 47 CFR 15 Subpart B Class A, ICES-3(A)/NMB-3(A), CE/UKCA - EN55032 Class A, EN 50130-4, VCCI CISPR 32 Class A, RCM AS-NZS CISPR 32 Class A, KS C 9832 Class A, KS C 9835, EN 55035		
Safety		UL 62368-1, CAN/CSA C22.2 NO. 62368-1, IEC 62471, IEC/EN/UL 62368-1 GS UL cUL CE FCC VCCI CB		
Environment		IEC 60529 IP66, IEC 60529 IP68, IEC 62262 IK10, NEMA TS 2-2013 (2.2.7, 2.2.8, 2.2.9), NEMA 250 type 4X, IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6, IEC 60068-2-14, IEC 60068-2-27, IEC 60068-2-78, MIL-STD-810H 501.7, MIL-STD-810H 502.7, MIL-STD-810H 503.7, MIL-STD-810H 505.7, MIL-STD-810H 506.6, MIL-STD-810H 507.6, MIL-STD-810H 509.7, MIL-STD-810H 510.7, MIL-STD-810H 521.4, IEC 60068-2-52:2017, NEMA TS2, 2.1.9, NEMA TS2, 2.1.10, NEMA TS2, 2.2.4, NEMA 250, 5.6, ASTM B117		

Installation Solution of T AI Ruggedized PTZ Camera



Wall Mount
SBP-004WMW



Wall Mount
SBP-004WMB



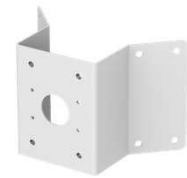
Converter
SBP-004PBW



Converter
SBP-004PBB



Pole Mount
SBP-150PMW



Corner Mount
SBP-156KMW



RJ45 Push-pull ruggedized
Connector Kit
SPP-K004EP

* One unit is provided as standard.



RJ45 Push-pull ruggedized
Cable (2M,5M,10M)
SPP-C00402EP/05EP/10EP



Replacement Kit
SBP-K004F



Replacement Kit
SBP-K004W