



Network PTZ

## TNP-A9430RW

8MP AI Ruggedized PTZ Camera



### Key Features

- Max 8MP 43x
- Support Optical Image Stabilization
- IP66, IP68, NEMA4X
- NEMA TS-2 (2.2.7.2-8, 2.2.8, 2.2.9)
- IR viewable length 500 m
- Wind load max.160 mph
- Operating temperature : -50 ~60°C
- Analytics events based on AI engine :
- Object detection (Person/Face/Vehicle/License plate),
- IVA (Virtual line/Area, Enter/Exit, Loitering, Direction, Intrusion), Slip&Fall detection, Motion detection
- Support BestShot and full attributes
- Support Dynamic Privacy Masking
- extremeWDR, WiseNR II (Based on AI engine), WiseStream(Based on AI engine)
- Support Wisepower(Power monitoring, ECO mode)
- Device certificate(Hanwha Vision Root CA), Secure storage (Secure element with FIPS 140-3 level3/CC EAL6+ certified), SBOM

### Compatible Devices



SBP-004PBW



SBP-004WMW



SBP-150PMW



SBP-156KMW



SBP-K004F



SBP-K004W

## TNP-A9430RW

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### Specifications

#### Video

<b>Imaging Device</b>	Size	1/1.8"
	Type	CMOS
<b>Resolution</b>	3840x2160, 2592x1944, 2592x1464, 1920x1080, 1600x1200, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240	
<b>Max. Framerate</b>	H.265/H.264	30fps/25fps(60Hz/50Hz)
	MJPEG	30fps(@8MP Max. 5fps)
<b>Min. Illumination (Lux)</b>	Color(1/30sec, 30IRE)	0.06 Lux(F1.69, 1/30sec, 30 IRE)
	BW(1/30sec, 30IRE)	0.006 Lux(F1.69, IR LED Off), 0Lux (IR LED On)

#### Lens

<b>Focal Length (mm)</b>		6.1~262.4
<b>Zoom Ratio</b>	Optical	43
	Digital	1367
<b>Max Aperture Ratio (F number)</b>	Wide	F1.69
	Tele	F4.92
<b>Angular Field of View</b>	Horizontal	63.62°(Wide)~1.77°(Tele)
	Vertical	37.69°(Wide)~0.99°(Tele)
	Diagonal	70.9°(Wide)~2.05°(Tele)
<b>Min. Object Distance</b>		5m(16.4ft)
<b>Focus Control</b>		Auto, Manual, Oneshot AF, Focus save
<b>Lens Type</b>		P iris(IR corrected)

#### Pan / Tilt / Rotate

<b>Pan / Tilt / Rotate Range</b>	Pan	360° Endless
	Tilt	Upright: 140°(50°~90°), Canted: 165°(75°~90°), Inverted: 140°(90°~50°)
<b>Pan Speed</b>	Preset	Max. 160°/sec
	Manual	0.024°/sec~160°/sec

Design and specifications are subject to change without notice. The latest product information / specification can be found at [HanwhaVision.com](http://HanwhaVision.com)  
Hanwha Vision is formerly known as Hanwha Techwin.

## Pan / Tilt / Rotate

Tilt Speed	Preset	Max. 160°/sec
	Manual	0.024°/sec~160°/sec
Sequence		Preset(300ea), Swing, Group(6ea), Trace, Tour, Auto Run, Schedule
Preset Accuracy		±0.07°

## Operational

Direction Indicator	Support	
Day & Night	Auto(ICR)	
Backlight Compensation	BLC, HLC, WDR, SSDR	
Wide Dynamic Range (dB)	120	
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V	
Digital Image Stabilization	Support(built-in gyro sensor)	
Optical Image Stabilization	Support	
Defog	Support	
Motion Detection	Quantity	8ea
	Shape	8point Polygonal zones
Privacy Masking	Quantity	32ea
	Shape	4point Quadrangle zones
	Color / Option	Gray, Green, Red, Blue, Black, White, Mosaic
	Dynamic Privacy Masking: Color / Option	Gray, Green, Red, Blue, Black, White, Mosaic, Purple, Yellow
Gain Control	Off, Max gain, Manual	
White Balance	ATW, NarrowATW, AWC, Manual, Indoor, Outdoor, Mercury, Sodium	
Electronic Shutter	Mode	Minimum, Maximum, Anti flicker, Prefer shutter control(Based on AI engine)
	Speed Range	2~1/30,000sec
Video Rotation	Flip&Mirror	
Installation Direction	Upright, Inverted, Canted	
Alarm Interface	Others	Support alarm I/O via optional I/O box
Alarm Triggers	Analytics, Network disconnect, Alarm input, Time schedule, MQTT subscription	
Alarm Events When Alarm Trigger Occurred	File upload(image): e-mail/FTP, File upload(video clip): FTP/SFTP, Notification: e-mail, Recording: SD/SDHC/SDXC or NAS recording at event triggers,Alarm output, Handover: PTZ preset,send message by HTTP/HTTPS/TCP,Audio clip playback, MQTT: publication	
Audio In	Support via optional I/O box	
Audio Out	Support via optional I/O box	
Light Type	IR LED	
Light Viewable Length	IR	500m(1,640.42ft)

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## Operational

IR Wavelength	850nm
Water Removal	Support(with Wiper)
Ice Removal	Window, Pan
Auto Tracking	Support, Object auto tracking(Person/Vehicle), Target lock tracking

## Analytics

Classified Object Type	Person, Face, Vehicle, License plate	
Attributes	Person	Upper/Lower clothes color, Gender, Bag
	Vehicle	Type(car, bus, truck, motorcycle, bicycle), Color
	Face	Age, Gender, Face mask, Glasses
Thumbnail	BestShot	
Analytics Events	Based on AI Engine	Object detection, Virtual line(Crossing/Direction), Motion detection, Slip & fall detection, Virtual area(Loitering/Intrusion/Enter/Exit/Appear/Disappear), Auto tracking
	Normal	Tampering, Audio detection, Shock detection

## Network

Ethernet	RJ-45 Push-pull Connector(10/100BASE-T)	
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG	
Smart Codec	WiseStream(Based on AI engine)	
Bitrate Control	H.265/H.264: CBR or VBR, MJPEG: VBR	
Streaming	Unicast	Up to 20 users
	Multicast	Support
	Multiple Streaming	Up to 10 profiles
Protocol	IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SFTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, CDP, SRTP(TCP, UDP Unicast), MQTT, NTCIP 1205, Syslog	
Application Programming Interface	ONVIF	S, G, T, M
	Others	SUNAPI(HTTP API), Hanwha Vision Open Platform
Direct Cloud Connection	Support	

## Security

OS / Firmware Protect	Encrypted firmware, Secure boot, Signed firmware
User authentication	Digest authentication, Prevent brute-force attack
Network authentication	IEEE 802.1X(EAP-TLS, EAP-LEAP, EAP-PEAP, MSCHAPv2)
Secure Communication	HTTPS, WSS(WebSocket Secure), SRTP
Access Control	IP-based access control, MAC-based access control, Auto logout
Data Protect	Encryption credentials, Encrypt compress for live recording file export
Audit	Access / System / Event Log management
Device ID	Device certificate(Hanwha Vision Root CA)

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## Security

Secure Storage	SDcard partition encrypt(AES-256), Secure element
Supply Chain Security	SBOM
Security Certificate	Secure element(FIPS 140-3 level3, CC EAL6+), Consumer IoT Security Standard (ETSI EN 303 645)

## General

SoC	Type	Wisenet 9
	Dual NPU	Support
Memory	RAM	4GB
	Flash	8GB eMMC
Edge Storage	Micro SD/SDHC/SDXC	Max. 1TB x 1slot
Edge Storage(OnCloud)	Micro SD/SDHC/SDXC	Max. 1TB x 1slot *Hanwha Vision branded microSD cards have been certified and recommended for OnCloud edge recording.

## Environmental & Electrical

Operating Condition	Temperature	-50°C~+60°C(-58°F~+140°F)
	Humidity	0~100% RH(condensing)
	Others	+74°C(+165°F)(Max) based on NEMA-TS 2(2.2.7), Start up should be done at above -30°C, Humidity control with AIR vent
Storage Condition	Temperature	-50°C~+60°C(-58°F~+140°F)
	Humidity	0~90% RH(non-condensing)
Wind Load		Sustained 257km/h (160mph)
EPA(Effective Projected Area)		0.095m <sup>2</sup>
Input Voltage		PoE++(IEEE802.3bt type4, Class8)
Power Consumption	PoE	Max 71W, Typical 33.2W
WisePower		Power mode, Power monitoring, Eco mode

## Mechanical

Color	White, Black
Material	Aluminum, PC(Polycarbonate), ITO Glass
Material Management	Declaration RoHS(EU RoHS directive 2011/65/EU and IEC/EN 63000:2018), REACH(Regulation (EC) No. 1907/2006), Conflict mineral policy(Section 1502 of US Dodd Frank Act)
RAL Code	RAL9003, RAL9005
Product Dimensions	Upright Normal/Inverted : 293.4(W)x205.6(D)x399.9(H)mm (11.55x8.09x15.74") Upright Canted : 293.4(W)x301.9(D)x363.6.9(H)mm (11.55x11.89x14.31")
Product Weight	10.5kg(9.5kg: Excluding installation part)

## Certifications & Standards

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
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## Certifications & Standards

<b>Safety</b>	UL 62368-1, CAN/CSA C22.2 NO. 62368-1, IEC 62471, IEC/EN/UL 62368-1 GS UL cUL CE FCC VCCI CB
<b>Environment</b>	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

## DORI (EN62676-4 standard)

<b>Detect (25PPM/ 8PPF)</b>	Wide	123.8m(406.23ft)
	Tele	4972m(16311ft)
<b>Observe (63PPM/ 19PPF)</b>	Wide	49.5m(162.49ft)
	Tele	1989m(6525ft)
<b>Recognize (125PPM/ 38PPF)</b>	Wide	24.8m(81.25ft)
	Tele	994.3m(3262ft)
<b>Identify (250PPM/ 76PPF)</b>	Wide	12.4m(40.62ft)
	Tele	497.2m(1631ft)

## TNP-A9430RW

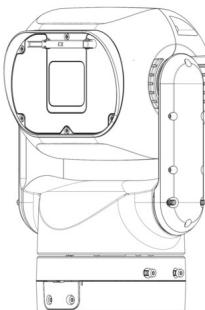
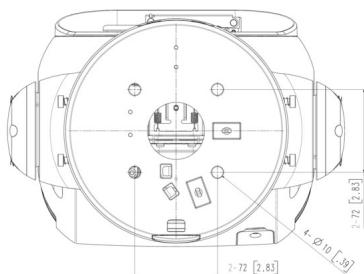
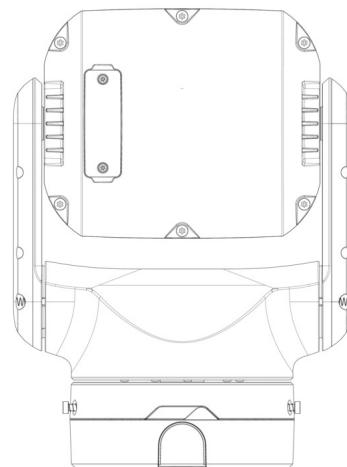
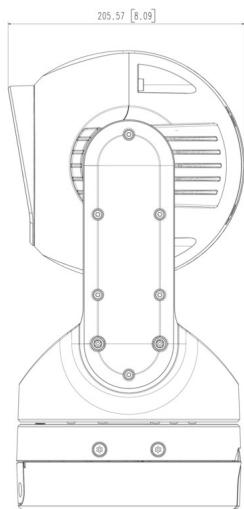
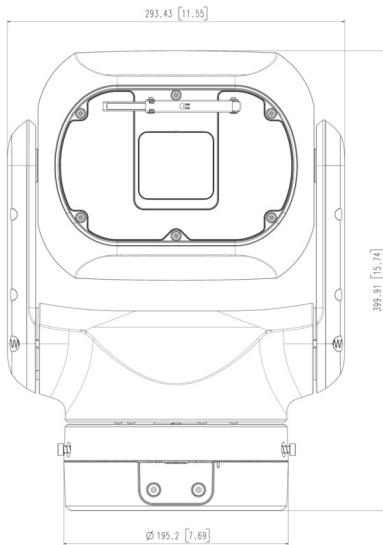
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### CAD

Unit: mm [inch]

For upright installation



3	TNP-A6550RW	'25.09.29
2	TNP-A7430RW	
1	TNP-A9430RW	
No.	MODEL NAME	

Unit:mm[inch] SCALE:1/1

 Hanwha Vision

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