

Network PTZ

TNP-A9430RW

4K AI IR, Ruggedized PTZ Positioning Camera

Key Features

- 8MP Image Resolution
- 43x Optical Zoom
- 165° (Canted) Tilt Range
- 500m IR Length
- Optical Image Stabilization
- Wind load max. 160mph
- Operating temperature : -50°C~+60°C(-58°F~+140°F)
- Best-in-class Pan/Tilt speed (up to 160°/s)
- AI-based Analytics and Business Intelligence
- IP66, IP68, NEMA4X, NEMA TS-2 (2.2.7.2-8, 2.2.8, 2.2.9)

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Specifications

Video

Imaging Device	Size	1/1.8"
	Type	CMOS
Resolution		3840x2160, 3328x1872, 2592x1944, 2592x1464, 1920x1080, 1600x1200, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240
Max. Framerate	H.265/H.264	30fps/25fps(60Hz/50Hz)
	MJPEG	30fps(@8MP Max. 5fps)
Min. Illumination (Lux)	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

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

Pan / Tilt / Rotate

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

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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, IGMPv2, 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

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Security

Device ID	Device certificate(Hanwha Vision Root CA)
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)		0.095㎡
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

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

DORI (EN62676-4 standard)

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

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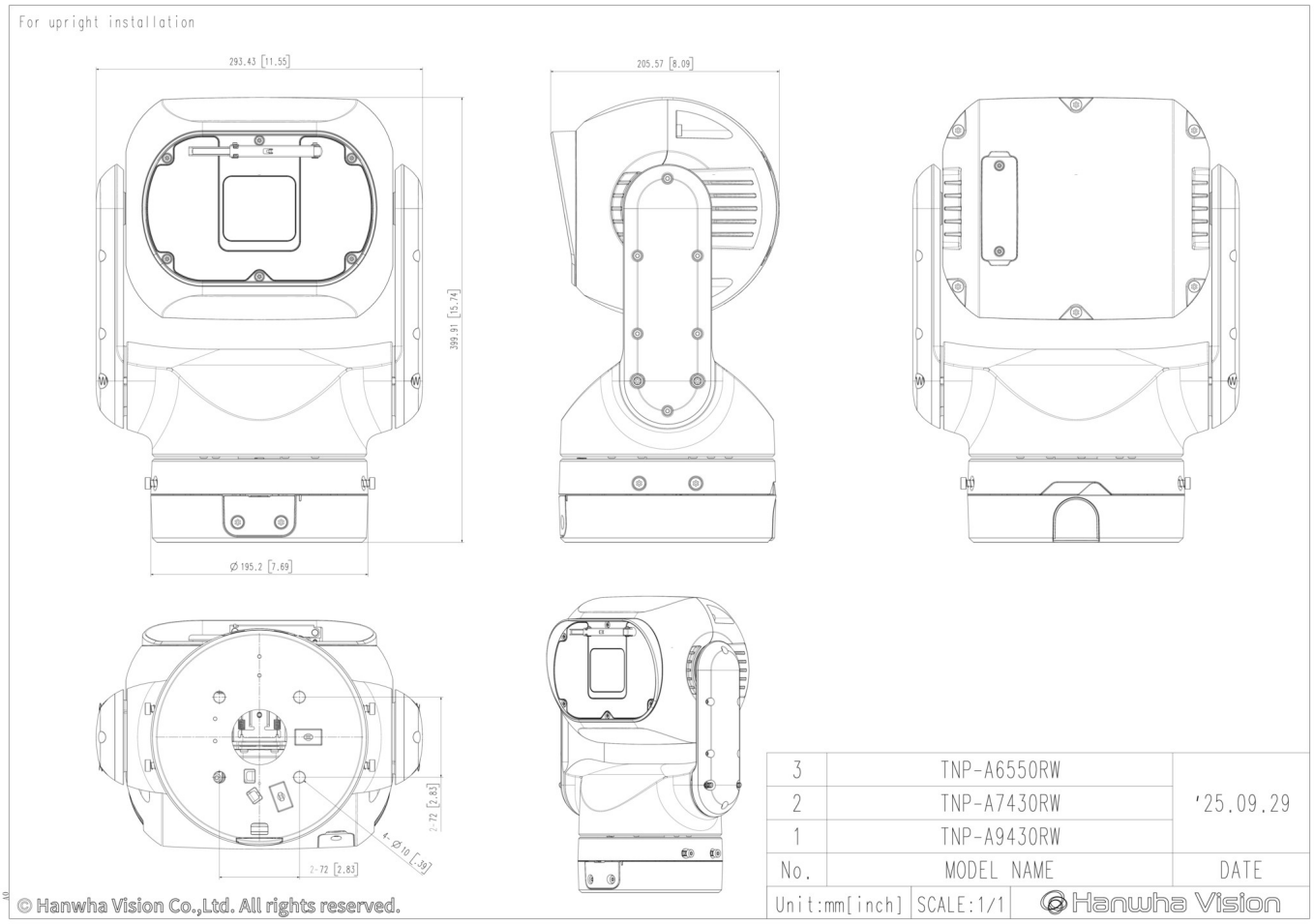
CAD

Unit: mm [inch]



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