

Network PTZ

# TNP-A9430RWB

## 8MP AI Ruggedized PTZ Camera

## Key Features

- 8MP Image Resolution
- 43x Optical Zoom
- 50°~90° Tilt Range
- 500m IR Length
- Black Variant
- 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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8MP AI Ruggedized PTZ Camera



## 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°),<br>Canted: 165°(75°~-90°),<br>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,<br>File upload(video clip): FTP/SFTP,<br>Notification: e-mail,<br>Recording: SD/SDHC/SDXC or NAS recording at event triggers,Alarm output,<br>Handover: PTZ preset,send message by HTTP/HTTPS/TCP,Audio clip playback,<br>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,<br>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)** | | 0.095㎡ |
| **Input Voltage** | | PoE++(IEEE802.3bt type4, Class8) |
| **Power Consumption** | PoE | Max 71W, Typical 33.2W |
| **WisePower** | | Power mode, Power monitoring, Eco mode |

## Mechanical

| | | |
|---|---|---|
| **Color** | | 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** | | RAL9005 |
| **Product Dimensions** | | Upright Normal/Inverted : 293.4(W)x205.6(D)x399.9(H)mm (11.55x8.09x15.74")<br>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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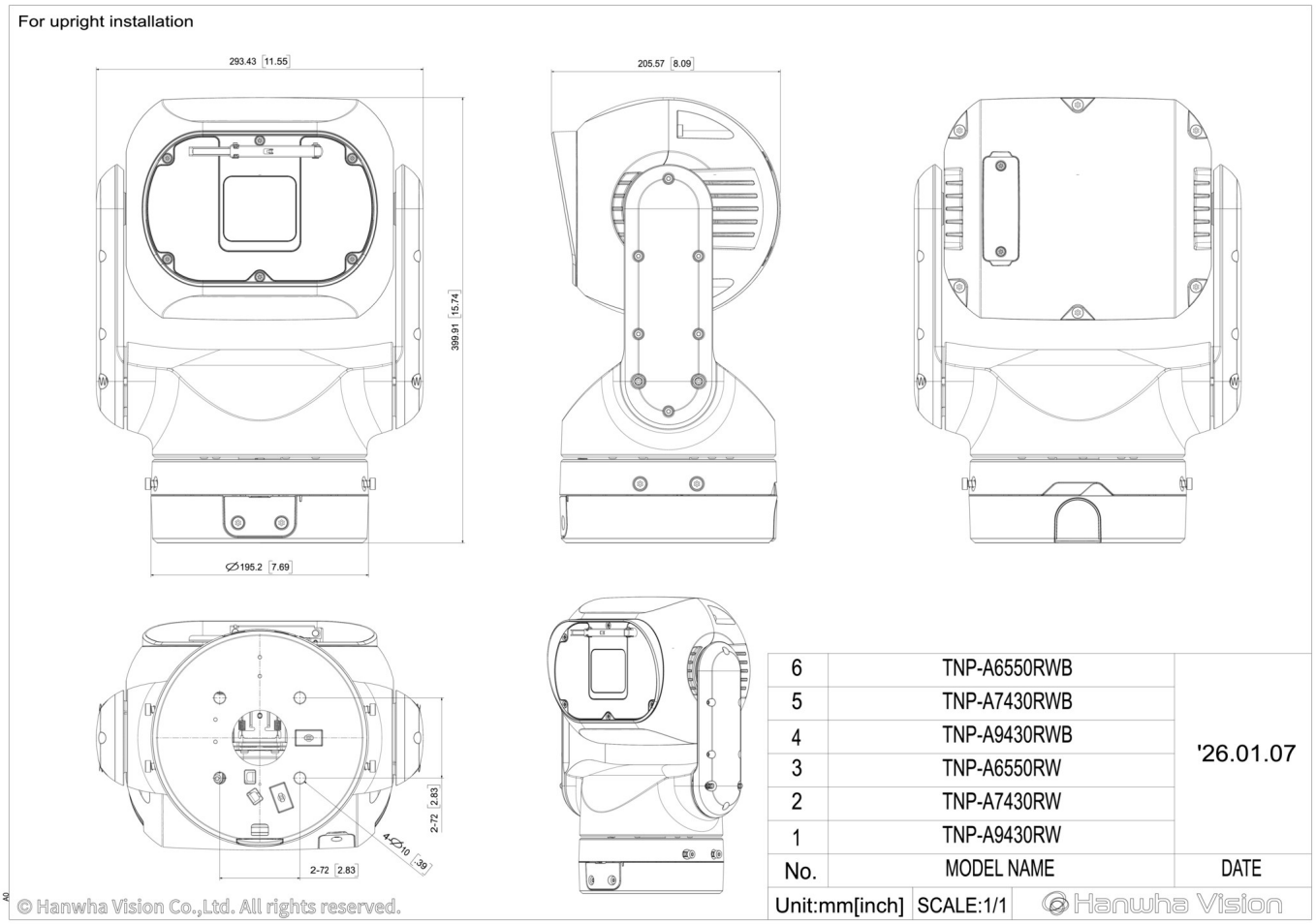
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## CAD

**Unit:** mm [inch]




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## Compatible Devices


SBP-150PMW


SBP-156KMW


SPP-K004EP


SPP-C00402EP


SPP-C00405EP


SPP-C00410EP

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