



Network

PTZ

## TNP-A9430RWB

8MP robuste PTZ-Kamera mit KI



### Key Features

- Max 8MP 43x
- Unterstützung der optischen Bildstabilisierung
- IP66, IP68, NEMA4X
- NEMA TS-2 (2.2.7.2-8, 2.2.8, 2.2.9)
- IR sichtbare Länge 500 m
- Windlast max. 160 mph (257 km/h)
- Betriebstemperatur: -50 ~60°C
- Analyseereignisse basierend auf AI-Engine: Objekterkennung (Person/Gesicht/Fahrzeug/Kennzeichen), IVA (Virtuelle Linie/Fläche, Betreten/Verlassen, Verweilen, Richtung, Eindringen), Slip&Fall-Erkennung, Bewegungserkennung
- Unterstützung von BestShot und vollständigen Attributen
- Unterstützung der dynamischen Privatsphärenmaskierung
- extremeWDR, WiseNR II (Basierend auf AI-Engine), WiseStream (Basierend auf AI-Engine)
- Unterstützung von Wisepower (Leistungsüberwachung, ECO-Modus)
- Gerätezertifikat (Hanwha Vision Root CA), Sichere Speicherung (Sicheres Element mit FIPS 140-3 Level3/CC EAL6+ zertifiziert), SBOM

### Compatible Devices



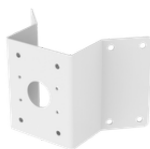
SBP-004PBB



SBP-004WMB



SBP-150PMW



SBP-156KMW



SPP-K004EP



SPP-C00402EP



SPP-C00405EP



SPP-C00410EP

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### Specifications

#### Video

|                        |                              |                                                                                                                                                                          |
|------------------------|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bildgebungsgerät       | Größe                        | 1/1.8"                                                                                                                                                                   |
|                        | Typ                          | CMOS                                                                                                                                                                     |
| Auflösung              |                              | 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. Beleuchtung (Lux) | Farbe (1/30 Sekunde, 30 IRE) | 0.06 Lux(F1.69, 1/30sec, 30 IRE)                                                                                                                                         |
|                        | S/W (1/30 Sekunde, 30 IRE)   | 0.006 Lux(F1.69, IR LED Off), 0Lux (IR LED On)                                                                                                                           |

#### Linse

|                                  |            |                                      |
|----------------------------------|------------|--------------------------------------|
| Brennweite (mm)                  |            | 6.1~262.4                            |
| Zoom-Verhältnis                  | Optisch    | 43                                   |
|                                  | Digital    | 1367                                 |
| Max. Öffnungsverhältnis (F-Zahl) | Weit       | F1.69                                |
|                                  | Tele       | F4.92                                |
| Winkel-Sichtfeld                 | Horizontal | 63.62°(Wide)~1.77°(Tele)             |
|                                  | Vertikal   | 37.69°(Wide)~0.99°(Tele)             |
|                                  | Diagonal   | 70.9°(Wide)~2.05°(Tele)              |
| Min. Objektstand                 |            | 5m(16.4ft)                           |
| Fokussteuerung                   |            | Auto, Manual, Oneshot AF, Focus save |
| Linsentyp                        |            | P iris(IR corrected)                 |

#### Schwenken / Neigen / Drehen

|                                    |                |                                                                              |
|------------------------------------|----------------|------------------------------------------------------------------------------|
| Schwenk- / Neigungs- / Drehbereich | Schwenken      | 360° Endless                                                                 |
|                                    | Neigen         | Upright: 140°(50°~90°),<br>Canted: 165°(75°~90°),<br>Inverted: 140°(90°~50°) |
| Schwenkgeschwindigkeit             | Voreinstellung | Max. 160°/sec                                                                |
|                                    | Manuell        | 0.024°/sec~160°/sec                                                          |

## Schwenken / Neigen / Drehen

|                             |                |                                                                   |
|-----------------------------|----------------|-------------------------------------------------------------------|
| Neigungsgeschwindigkeit     | Voreinstellung | Max. 160°/sec                                                     |
|                             | Manuell        | 0.024°/sec~160°/sec                                               |
| Reihenfolge                 |                | Preset(300ea), Swing, Group(6ea), Trace, Tour, Auto Run, Schedule |
| Voreingestellte Genauigkeit |                | ±0.07°                                                            |

## Operativ

|                                                     |                                                  |                                                                                                                                                                                                                                                                             |
|-----------------------------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Richtungsanzeiger                                   |                                                  | Support                                                                                                                                                                                                                                                                     |
| Tag & Nacht                                         |                                                  | Auto(ICR)                                                                                                                                                                                                                                                                   |
| Hintergrundbeleutungskompensation                   |                                                  | BLC, HLC, WDR, SSDR                                                                                                                                                                                                                                                         |
| Großer Dynamikbereich (dB)                          |                                                  | 120                                                                                                                                                                                                                                                                         |
| Digitale Rauschunterdrückung                        |                                                  | WiseNR II (Based on AI engine), SSNR V                                                                                                                                                                                                                                      |
| Digitale Bildstabilisierung                         |                                                  | Support(built-in gyro sensor)                                                                                                                                                                                                                                               |
| Optische digitale Bildstabilisierung                |                                                  | Support                                                                                                                                                                                                                                                                     |
| Entnebeln                                           |                                                  | Support                                                                                                                                                                                                                                                                     |
| Bewegungserkennung                                  | Menge                                            | 8ea                                                                                                                                                                                                                                                                         |
|                                                     | Form                                             | 8point Polygonal zones                                                                                                                                                                                                                                                      |
| Datenschutzmaskierung                               | Menge                                            | 32ea                                                                                                                                                                                                                                                                        |
|                                                     | Form                                             | 4point Quadrangle zones                                                                                                                                                                                                                                                     |
|                                                     | Farbe / Option                                   | Gray, Green, Red, Blue, Black, White, Mosaic                                                                                                                                                                                                                                |
|                                                     | Dynamische Datenschutzmaskierung: Farbe / Option | Gray, Green, Red, Blue, Black, White, Mosaic, Purple, Yellow                                                                                                                                                                                                                |
| Verstärkung                                         |                                                  | Off, Max gain, Manual                                                                                                                                                                                                                                                       |
| Weißabgleich                                        |                                                  | ATW, NarrowATW, AWC, Manual, Indoor, Outdoor, Mercury, Sodium                                                                                                                                                                                                               |
| Elektronischer Verschluss                           | Modus                                            | Minimum, Maximum, Anti flicker, Prefer shutter control(Based on AI engine)                                                                                                                                                                                                  |
|                                                     | Geschwindigkeitsbereich                          | 2~1/30,000sec                                                                                                                                                                                                                                                               |
| Videodrehung                                        |                                                  | Flip&Mirror                                                                                                                                                                                                                                                                 |
| Installationsrichtung                               |                                                  | Upright, Inverted, Canted                                                                                                                                                                                                                                                   |
| Alarmschnittstelle                                  | Andere                                           | Support alarm I/O via optional I/O box                                                                                                                                                                                                                                      |
| Alarmauslöser                                       |                                                  | Analytics, Network disconnect, Alarm input, Time schedule, MQTT subscription                                                                                                                                                                                                |
| Alarmereignisse beim Auftreten eines Alarmauslösers |                                                  | 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 |
| Audioeingang                                        |                                                  | Support via optional I/O box                                                                                                                                                                                                                                                |
| Audioausgang                                        |                                                  | Support via optional I/O box                                                                                                                                                                                                                                                |
| Lichttyp                                            |                                                  | IR LED                                                                                                                                                                                                                                                                      |

## Operativ

|                       |    |                                                                     |
|-----------------------|----|---------------------------------------------------------------------|
| Licht sichtbare Länge | IR | 500m(1,640.42ft)                                                    |
| IR-Wellenlänge        |    | 850nm                                                               |
| Wasserentfernung      |    | Support(with Wiper)                                                 |
| Enteisung             |    | Window, Pan                                                         |
| Auto-Tracking         |    | Support, Object auto tracking(Person/Vehicle), Target lock tracking |

## Analysen

|                           |                         |                                                                                                                                                                           |
|---------------------------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Klassifizierter Objekttyp |                         | Person, Face, Vehicle, License plate                                                                                                                                      |
| Attribute                 | Person                  | Upper/Lower clothes color, Gender, Bag                                                                                                                                    |
|                           | Fahrzeug                | Type(car, bus, truck, motorcycle, bicycle), Color                                                                                                                         |
|                           | Gesicht                 | Age, Gender, Face mask, Glasses                                                                                                                                           |
| Vorschaubild              |                         | BestShot                                                                                                                                                                  |
| Analyseereignisse         | Basierend auf KI-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                                                                                                                               |

## Netzwerk

|                                    |                    |                                                                                                                                                                                                                                                 |
|------------------------------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ethernet                           |                    | RJ-45 Push-pull Connector(10/100BASE-T)                                                                                                                                                                                                         |
| Videokomprimierung                 |                    | H.265/H.264: Main/Baseline/High, MJPEG                                                                                                                                                                                                          |
| Intelligenter Codec                |                    | WiseStream(Based on AI engine)                                                                                                                                                                                                                  |
| Bitratenkontrolle                  |                    | H.265/H.264: CBR or VBR, MJPEG: VBR                                                                                                                                                                                                             |
| Streaming                          | Unicast            | Up to 20 users                                                                                                                                                                                                                                  |
|                                    | Multicast          | Support                                                                                                                                                                                                                                         |
|                                    | Mehrfach-Streaming | Up to 10 profiles                                                                                                                                                                                                                               |
| Protokoll                          |                    | 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 |
| Anwendungsprogrammierschnittstelle | ONVIS              | S, G, T, M                                                                                                                                                                                                                                      |
|                                    | Andere             | SUNAPI(HTTP API), Hanwha Vision Open Platform                                                                                                                                                                                                   |
| Direkte Cloud-Verbindung           |                    | Support                                                                                                                                                                                                                                         |

## Sicherheit

|                                   |  |                                                                         |
|-----------------------------------|--|-------------------------------------------------------------------------|
| Betriebssystem- / Firmware-Schutz |  | Encrypted firmware, Secure boot, Signed firmware                        |
| Benutzerauthentifizierung         |  | Digest authentication, Prevent brute-force attack                       |
| Netzwerkauthentifizierung         |  | IEEE 802.1X(EAP-TLS, EAP-LEAP, EAP-PEAP, MSCHAPv2)                      |
| Sichere Kommunikation             |  | HTTPS, WSS(WebSocket Secure), SRTP                                      |
| Zugangskontrolle                  |  | IP-based access control, MAC-based access control, Auto logout          |
| Datenschutz                       |  | Encryption credentials, Encrypt compress for live recording file export |
| Audit                             |  | Access / System / Event Log management                                  |

## Sicherheit

|                            |                                                              |
|----------------------------|--------------------------------------------------------------|
| Geräte-ID                  | Device certificate(Hanwha Vision Root CA)                    |
| Sichere Speicherung        | SDcard partition encrypt(AES-256), Secure element            |
| Sicherheit der Lieferkette | SBOM                                                         |
| Sicherheitszertifikat      | Secure element(FIPS 140-3 level3, CC EAL6+), ETSI EN 303 645 |

## Allgemein

|                        |                    |                                                                                                                       |
|------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------|
| SoC                    | Type               | Wisenet 9                                                                                                             |
|                        | Dual NPU           | Support                                                                                                               |
| Speicher               | 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. |

## Umwelt & Elektrik

|                                                              |                  |                                                                                                                      |
|--------------------------------------------------------------|------------------|----------------------------------------------------------------------------------------------------------------------|
| Betriebsbedingung                                            | Temperatur       | -50°C~+60°C(-58°F~+140°F)                                                                                            |
|                                                              | Luftfeuchtigkeit | 0~100% RH(condensing)                                                                                                |
|                                                              | Andere           | +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 |
| Lagerbedingung                                               | Temperatur       | -50°C~+60°C(-58°F~+140°F)                                                                                            |
|                                                              | Luftfeuchtigkeit | 0~90% RH(non-condensing)                                                                                             |
| Windlast                                                     |                  | Sustained 257km/h (160mph)                                                                                           |
| EPA (Effective Projected Area, Effektive projizierte Fläche) |                  | 0.095m <sup>2</sup>                                                                                                  |
| Eingangsspannung                                             |                  | HPoE(IEEE802.3bt type4, Class8)                                                                                      |
| Stromverbrauch                                               | PoE              | Max 71W, Typical 33.2W                                                                                               |
| Wisepower                                                    |                  | Power mode, Power monitoring, ECO mode                                                                               |

## Mechanisch

|                    |           |                                                                                                                                                            |
|--------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Farbe              |           | Black                                                                                                                                                      |
| Material           |           | Aluminum, PC(Polycarbonate), ITO Glass                                                                                                                     |
| Materialwirtschaft | Erklärung | 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                                                                                                                                                    |
| Produktabmessungen |           | 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")         |
| Produktgewicht     |           | 10.5kg(9.5kg: Excluding installation part)                                                                                                                 |

## Zertifizierungen & Standards

|     |                                                                                                                                                                                                    |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EMV | 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 |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Zertifizierungen & Standards

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sicherheit | UL 62368-1, CAN/CSA C22.2 NO. 62368-1, IEC 62471, IEC/EN/UL 62368-1 GS UL cUL CE FCC VCCI CB                                                                                                                                                                                                                                                                                                                                                                                               |
| Umwelt     | 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 (Norm EN62676-4)

|                                |       |                  |
|--------------------------------|-------|------------------|
| Erkennen (25PPM/ 8PPF)         | Breit | 123.8m(406.23ft) |
|                                | Tele  | 4972m(16311ft)   |
| Beobachten (63PPM/ 19PPF)      | Breit | 49.5m(162.49ft)  |
|                                | Tele  | 1989m(6525ft)    |
| Erkennen (125PPM/ 38PPF)       | Breit | 24.8m(81.25ft)   |
|                                | Tele  | 994.3m(3262ft)   |
| Identifizieren (250PPM/ 76PPF) | Breit | 12.4m(40.62ft)   |
|                                | Tele  | 497.2m(1631ft)   |

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CAD

Unit: mm [inch]

