



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



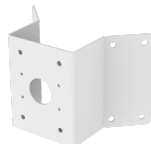
SBP-004PBW



SBP-004WMW



SBP-150PMW



SBP-156KMW

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Specifications

Video	
Imaging Device	1/1.8" CMOS
Resolution	3840x2160, 2592x1944, 2592x1464, 1920x1080, 1600x1200, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240
Max. Framerate	H.265/H.264: Max. 60fps/50fps(60Hz/50Hz)(WDR off) H.265/H.264: Max. 30fps/25fps(60Hz/50Hz)(WDR on) MJPEG: Max. 30fps/25fps(60Hz/50Hz)(@4MP Max. 5fps)
Min. Illumination	Color: 0.1 Lux(F1.6, 1/30sec, 30 IRE) BW: 0.01 Lux(F1.6, IR LED Off), 0Lux (IR LED On)
Lens	
Focal Length (Zoom Ratio)	6.5 ~ 253.5mm(43x) zoom (digital 32x, total 1376x zoom)
Max. Aperture Ratio	F1.6(Wide)~F5.0(Tele)
Angular Field of View	H : 63.62°(Wide)~7.68°(Tele) V : 37.69°(Wide)~4.32°(Tele) D : 70.9°(Wide)~8.81°(Tele)
Min. Object Distance	3m(9.84ft)
Focus Control	Oneshot AF, Focus save
Lens Type	P-iris(IR corrected)
Pan / Tilt / Rotate	
Pan Range	360° Endless
Pan Speed	0.05°/sec ~ 120°/sec
Tilt Range	145°(-55° ~ 90°) - upright, 145°(90° ~ -55°) - inverted, 145°(-80° ~ 65°) - upright
Tilt Speed	0.05°/sec ~ 120°/sec
Sequence	Preset(300ea), Swing, Group(6ea), Trace, Tour, Auto Run, Schedule
Preset Accuracy	±0.05° (±20°C by temperature at preset setting)
Operational	
Camera Title	Displayed up to 85 characters
Direction Indicator	Support
Day & Night	Auto(ICR)
Backlight Compensation	BLC, HLC, WDR, SSDR
Wide Dynamic Range	120dB
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V
Digital Image Stabilization	Support(built-in gyro sensor)
Defog	Support
Motion Detection	8ea, 8point polygonal zones
Privacy Masking	32ea, 4point quadrangle zones - Color: Gray/Green/Red/Blue/Black/White - Mosaic

Design and specifications are subject to change without notice. The latest product information / specification can be found at [HanwhaVision.com](https://www.hanwhavision.com).

Hanwha Vision is formerly known as Hanwha Techwin.

Gain Control	Off / Max gain / Manual
White Balance	ATW / NarrowATW / AWC / Manual / Indoor / Outdoor / Mercury / Sodium
Electronic Shutter Speed	Minimum / Maximum / Anti flicker (2~1/30,000sec) Prefer shutter control(Based on AI engine)
Video Rotation	Flip&Mirror
Analytics	Classified object type: Person/Face/Vehicle/License plate Attributes: Person(Gender, Color and Bag), Face(Age, Gender, Mask and Glasses), Vehicle(Type: car/bus/truck/motorcycle/bicycle and Color) Support BestShot per object Analytics events based on AI engine - Object detection, Virtual line*(Crossing/Direction), Virtual area*(Loitering/Intrusion/Enter/Exit), Face mask detection, Social distancing detection, Slip&Fall detection Analytics events - Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear) Support WiseDetector for Adding custom objects *Some of the video analytics only works with people and vehicle detection * Audio detection, Sound classification(Via optional I/O box SPM-4210)
Alarm Triggers	Analytics, Network disconnect, Alarm input(Via optional I/O box SPM-4210), Time schedule, MQTT subscription
Alarm Events	When alarm trigger occurred - File upload(image) : e-mail/FTP - Notification : e-mail - Recording : SD/SDHC/SDXC or NAS recording at event triggers - Handover: PTZ preset, send message by HTTP/HTTPS/TCP - MQTT: publication * Alarm output / Audio clip playback(Via optional I/O box SPM-4210)
Light Type	IR LED (850nm)
IR Viewable Length	300m
Water Removal	Support(Wiper, Defroster)
Auto Tracking	Support Object auto tracking(Person/Vehicle) Target lock tracking

Network	
Ethernet	Metal shielded RJ-45(10/100BASE-T)
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG
Smart Codec	Manual(5ea area), WiseStreamIII(Based on AI engine)
Bitrate Control	H.264/H.265: CBR or VBR MJPEG: VBR
Streaming	Unicast(20 users) / Multicast 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, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, CDP, SRTP(TCP, UDP Unicast), NTCIP 1205, MQTT
Application Programming Interface	ONVIF Profile S/G/T/M SUNAPI(HTTP API) Wisenet open platform

Security	
OS / Firmware Protect	Encrypted Firmware, Secure boot, Signed Firmware
User authentication	Digest Authentication
Network authentication	IEEE 802.1X(EAP-TLS, EAP-LEAP, EAP-PEAP, MSCHAPv2)
Secure Communication	HTTPS, WSS(WebSocket Secure)
Access Control	IP-based access control
Data Protect	Encryption Credentials, Encrypt compress for live recording file
Audit	Access / System / Event Log management
Device ID	Device Certificate(Hanwha Private Root CA)

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Secure Storage	HTPM(Hanwha Trusted Platform Module), Sdcard partition encrypt
Security Certificate	TPM with FIPS 140-2 level2
General	
Webpage Language	English, Korean, Simplified Chinese, Traditional Chinese, French, Italian, Spanish, German, Japanese, Russian, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek
Edge Storage	Micro SD/SDHC/SDXC 2slot 1TB (512MBx2)
Memory	4GB RAM, 512MB Flash
Environmental & Electrical	
Operating Temperature / Humidity	Normal : -50°C~+60°/ +74°C(165°F)(Max) based on NEMA TS-2(2.2.7) * Start up should be done at above -30°C 0~100% RH(condensing)
Storage Temperature / Humidity	-50°C~+60°C(-58°F~+140°F) / 0~90% RH
Certification	IP66/IP68, IK10, NEMA4X Safety(UL, KC-SDOC), EMC(FCC, CE, VCCI, RCM, KC) NEMA-TS 2(2.2.7, 2.2.8, 2.2.9), MIL-STD, SO 12944:6 Standard C5-M
Input Voltage	HPoE(IEEE802.3bt type4, Class8, Injector included)
Power Consumption	HPoE
Mechanical	
Color / Material	Gray / Aluminum
RAL Code	TBD
Product Dimensions / Weight	TBD / TBD
Certifications & Standards	
EMC	FCC 47 CFR 15 Subpart B Class A ICES-3(A)/NMB-3(A) CE/UKCA - EN 55032 Class A, EN 50130-4, EN 61000-3-2, EN 61000-3-3 VCCI CISPR 32 Class A RCM AS/NZS CISPR 32 Class A KS C 9832 Class A , KS C 9835 EN 50121-4, IEC/EN/UL 62368-1 ed. 3, IEC 60068-2-6, IEC 60068-2-27 CAN/CSA-C22.2 No. 60950-22, IEC/EN/UL 60950-22, 미드스팬: EN 60950-1 GS UL cUL CE FCC VCCI CB
Safety	UL 62368-1, CAN/CSA C22.2 NO. 62368-1 IEC/EN 62471
Environment	IEC/EN 63000 IEC/EN 60529 IP66/IP67, IEC/EN 62262 IK10 NEMA TS 2-2013 (2.2.7, 2.2.8, 2.2.9, 2.2.10) NEMA 250 type 4X MIL-STD-810G 500.5, MIL-STD-810G 501.5, MIL-STD-810G 502.5, MIL-STD-810G 503.5, MIL-STD-810G 505.5, MIL-STD-810G 506.5, MIL-STD-810G 507.5, MIL-STD-810G 509.5, MIL-STD-810G 510.5, MIL-STD-810G 521.3, ISO 12944:6 Standard C5-M
DORI (EN62676-4 standard)	
Detect (25PPM/ 8PPF)	TBD
Observe (63PPM/ 19PPF)	TBD
Recognize (125PPM/ 38PPF)	TBD
Identify (250PPM/ 76PPF)	TBD

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CAD

Unit:mm [inch]

