



Network

Dome

# XND-A9084RV

8MP AI IR Dome Camera



## Key Features

- 4.4~9.3mm (2.1x) motorized varifocal
- Dual NPU for AI-based Image enhancement
- 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, Face mask detection,  
Social distancing detection, Motion detection
- Business intelligence based on AI engine :  
People/Vehicle/Crowd counting, Queue management, Heatmap
- Support BestShot and full attributes
- Support Dynamic Privacy Masking
- extremeWDR, WiseNR II (Based on AI engine),  
WiseStream(Based on AI engine)
- WiseIR: IR viewable length 40 m (131.23 ft)
- IP52, IK10
- Support Wisepower(Power monitoring, ECO mode)
- Use recycled plastic
- Device certificate(Hanwha Vision Root CA),  
Secure storage  
(Secure element with FIPS 140-3 level3/CC EAL6+ certified), SBOM

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### Specifications

#### Video

Imaging Device	1/1.8" CMOS
Resolution	3840x2160, 3328x1872, 3072x1728, 2592x1944, 2688x1512, 2560x1440, 1920x1080, 1600x1200, 1280x960, 1280x720, 1024x768, 800x600, 640x480, 640x360, 320x240, 320x180
Max. Framerate	H.265/H.264: Max. 30fps/25fps(60Hz/50Hz) MJPEG: Max. 30fps(@8MP Max. 5fps)
Min. Illumination	Color: 0.04Lux(F1.3, 1/30sec, 30IRE) BW: 0.004Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on)
Video Out	USB: Micro USB Type C for installation

#### Lens

Focal Length (Zoom Ratio)	4.4~9.3mm(2.1x) motorized varifocal
Max. Aperture Ratio	F1.3(Wide)~F2.15(Tele)
Angular Field of View	H: 113°(Wide)~47°(Tele) V: 58°(Wide)~26°(Tele) D: 138°(Wide)~54°(Tele)
Min. Object Distance	0.5m(1.64ft)
Focus Control	Simple focus, manual
Lens Type	P-iris(IR corrected)

#### Pan / Tilt / Rotate

Pan / Tilt / Rotate Range	0°~360° / 0°~75° / 0°~355°
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#### Operational

Camera Title	Displayed up to 85 characters
Day & Night	Auto(ICR)
Backlight Compensation	BLC, HLC, WDR, SDR
Wide Dynamic Range	120dB
Digital Noise Reduction	SSNR V , WiseNR II (Based on AI engine)
Digital Image Stabilization	Support
Defog	Support
Motion Detection	8ea, 8point polygonal zones
Privacy Masking	32ea, 8point polygonal zones - Color: gray/green/red/blue/black/white/purple/yellow - Mosaic Dynamic Privacy Mask(Based on AI engine) - Color: gray/green/red/blue/black/white/purple/yellow - Mosaic
Gain Control	Off / Max Gain / Manual
White Balance	ATW / NarrowATW / AWC / Manual / Indoor / Outdoor
LDC	Support(Fill/Stretch mode)
Electronic Shutter Speed	Minimum / Maximum / Anti flicker(2~1/30,000sec) Prefer shutter control(Based on AI engine)

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Hanwha Vision is formerly known as Hanwha Techwin.

Video Rotation	Flip, mirror, hallway view(90°/270°)
Analytics	<p>Classified object type: Person/Face/Vehicle(Type: car/bus/truck/motorcycle/bicycle)/License plate            Attributes: Person(Gender, Clothing top/bottom color, Bag), Face(Age, Gender, Mask, Glasses),            Vehicle(Type: car/bus/truck/motorcycle/bicycle, Color)            Support BestShot</p> <p>Analytics events based on AI engine            - Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit/Appear/Disappear), Slip &amp; fall detection, Face mask detection, Social distancing detection</p> <p>Analytics events            - Defocus detection, Tampering, Shock detection, Audio detection</p>
Business Intelligence	Based on AI engine: People/Vehicle/Crowd counting, Queue management, Heatmap
Alarm I/O	2 configurable I/O ports *Support extra alarm I/O via optional I/O box
Alarm Triggers	Analytics, Network disconnection, Alarm input, Time schedule, MQTT subscription, Day/Night, Storage disruption
Alarm Events	<p>When alarm trigger occurred</p> <ul style="list-style-type: none"> <li>- File upload(image): e-mail/FTP/SFTP</li> <li>- File upload(video clip): FTP/SFTP</li> <li>- Notification: e-mail</li> <li>- Recording: SD/SDHC/SDXC or NAS recording at event triggers</li> <li>- Alarm output</li> <li>- Handover: PTZ preset, send message by HTTP/HTTPS/TCP</li> <li>- Audio clip playback(WAV, MP3)</li> <li>- MQTT: publication</li> </ul>
Audio In	Selectable(mic in/line in)
Audio Out	Line out
Light Type	IR LED
Light Viewable Length	WiseIR 40m(131.23ft)
IR Wavelength	850nm

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Network	
Ethernet	Metal shielded RJ-45(10/100BASE-T)
Video Compression	H.265/H.264: Main/Baseline/High MJPEG
Audio Compression	G.711(PCM): 8kHz(64Kbps) G.726(ADPCM): 8kHz(16/24/32/40Kbps) AAC-LC: 16kHz(48Kbps) OPUS: 48kHz(64Kbps)
Smart Codec	WiseStream(Based on AI engine)
Bitrate Control	H.264/H.265: CBR or VBR MJPEG: VBR
Streaming	Unicast(20 users) / Multicast Multiple streaming(Up to 5 profiles, 3 virtual channel support)
Protocol	IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP/SFTP, SMTP(StartTLS), ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, SRTP(TCP, UDP Unicast), CDP, MQTT, Syslog
Application Programming Interface	ONVIF Profile S/G/T/M SUNAPI(HTTP API) Hanwha Vision Open Platform

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Security	
OS / Firmware Protect	Encrypted Firmware, Secure boot, Signed Firmware
User authentication	Digest Authentication, Prevent brute-force attack
Network authentication	802.1X Authentication(EAP-TLS, EAP-LEAP, EAP-PEAP MSCHAPv2)
Secure Communication	HTTPS, SRTP, WSS(Websocket secure)
Access Control	IP-based access control, MAC-based access control, Auto logout
Data Protect	Encryption Credentials, Encrypt compress for live recording file export

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Audit	Access / System / Event Log management
Device ID	Device Certificate(Hanwha vision Root CA)
Secure Storage	Secure element, SDcard partition encrypt
Supply Chain Security	SBOM
Security Certificate	ETSI EN 303 645, Secure element(FIPS 140-3 level3, CC EAL6+)

## 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 1slot 1TB
Memory	4GB RAM, 8GB eMMC

## Environmental & Electrical

Operating Temperature / Humidity	-10°C~+50°C(-14°F~+122°F) / 0~100%RH(Condensing) Humidity control with AIR vent
Storage Temperature / Humidity	-50°C~+60°C(-58°F~+140°F) / 0~90% RH
EPA(Effective Projected Area)	0.02m <sup>2</sup>
Certification	IP52, IK10
Input Voltage	PoE(IEEE802.3af, Class3)
Power Consumption	PoE: Max. 11.2W, typical 8.4W Support Wisepower - Power monitoring(Max./Current/Avg.) - ECO mode

## Mechanical

Color / Material	White / Aluminum+PC Bubble: Hard-coated dome
Material management	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) Recycled plastic: 10.63%
RAL Code	RAL9003
Product Dimensions / Weight	ø160x118mm(6.30x4.65"), 1.020g(2.25lb)
Compatible Conduit hole / Gangbox	12.7mm(1/2")(M20) Single, double, 4" octagon, 4" square

## 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
Safety	UL 62368-1, CAN/CSA C22.2 NO. 62368-1 IEC/EN 62471
Environment	IEC/EN 63000 IEC/EN 60529 IP52, IEC/EN 62262 IK10, IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6, IEC 60068-2-14, IEC 60068-2-27, IEC 60068-2-78

## Compatible Models

Hanging Adaptor	SBP-160HMMW1
Back Box	SBV-180BW, SBV-180WW
Ceiling Mount (Assy)	SBP-150CMI, SBP-300CMI, SBP-300CMW1, SBP-900CMW, SBP-300CMTW, SBP-300CMTS
Ceiling Mount (Single Unit)	SBP-180CMB, SBP-140CMB, SBP-180CMS, SBP-900CMP, SBP-300CMP, SBP-150CMP, SBP-C15P, SBP-C15H

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Wall Mount	SBP-160WMW1, SBP-400WMW, SBP-250WMW, SBP-300WMW, SBP-300WMW1
Pole Mount	SBD-180PMW, SBP-300PMW2
In-ceiling Mount	SHD-1600FPW, SHD-1600FW
Corner Mount	SBP-156KMW, SBP-300KMW1
Parapet Mount	SBP-156LMW1, SBP-300LMW
Tilt Mount	SBP-160TMW1
Cabinet	SBP-150NBW, SBP-300NBW
Interface Box	SPM-4210
Other Compatible Models	SPP-C7400, SPB-VAN88W, SBP-140CMT, SBP-115PFA

## DORI (EN62676-4 standard)

Detect (25PPM/ 8PPF)	Wide: 50.8m(166.77ft) / Tele: 176.6m(579.49ft)
Observe (63PPM/ 19PPF)	Wide: 20.3m(66.71ft) / Tele: 70.7m(231.80ft)
Recognize (125PPM/ 38PPF)	Wide: 10.2m(33.35ft) / Tele: 35.3m(115.90ft)
Identify (250PPM/ 76PPF)	Wide: 5.1m(16.68ft) / Tele: 17.7m(57.95ft)