Hanwha Vision

Network Dome

XND-A9084RV

8MP AI IR Dome Camera

Key Features

- 8MP Image Resolution
- 4.4~9.3mm Focal Length
- 50m IR Length
- IP52, IK10 Rated

• 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 50 m (164.04 ft)
• 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	Size	1/1.8"
	Type	CMOS
Resolution		3840x2160, 3328x1872, 3072x1728, 2688x1512, 2560x1440, 1920x1080, 1600x1200, 1280x960, 1280x720, 1024x768, 800x600, 640x480, 640x360, 320x240, 320x180
Max. Framerate	H.265/H.264	30fps/25fps(60Hz/50Hz)
	MJPEG	30fps(@8MP Max. 5fps)
Min. Illumination (Lux)	Color(1/30sec, 30IRE)	0.04
	BW(1/30sec, 30IRE)	0.004
Video Out		USB: USB Type C. Preview and installation ONLY. Requires WiFi dongle.

Lens

Focal Length (mm)		4.4~9.3
Zoom Ratio	Optical	2.1x
Max Aperture Ratio (F number)	Wide	1.3
	Tele	2.15
Angular Field of View	Horizontal	113°~47°
	Vertical	58°~26°
	Diagonal	138°~54°
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	Pan	0°~360°
	Tilt	0°~75°
	Rotate	0°~355°

Operational

Day & Night	Auto(ICR)
Backlight Compensation	BLC, HLC, WDR, SSDR

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Operational

Wide Dynamic Range (dB)		120
Digital Noise Reduction		WiseNR II (Based on AI engine), SSNR V
Digital Image Stabilization		Support
Defog		Support
Motion Detection	Quantity	8ea
	Shape	8point Polygonal zones
Privacy Masking	Quantity	32ea
	Shape	8point Polygonal zones
	Color / Option	Gray, Green, Red, Blue, Black, White, Mosaic, Purple, Yellow
	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
LDC		Support(Fill/stretch mode)
Electronic Shutter	Mode	Minimum, Maximum, Anti flicker, Prefer shutter control(Based on AI engine)
	Speed Range	2~1/30,000sec
Video Rotation		Flip, Mirror, Hallway view(90°/270°)
Alarm Interface	In/Out	2 configurable I/O ports
	Others	Support extra alarm I/O via optional I/O box
Alarm Triggers		Analytics, Network disconnect, Alarm input, Time schedule, MQTT subscription, Day/Night, Storage disruption
Alarm Events When Alarm Trigger Occurred		File upload(image): e-mail/FTP/SFTP, 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		Selectable(mic in/line in)
Audio Out		Line out
Light Type		IR LED
Light Viewable Length	IR	WiseIR 50m(164.04ft)
IR Wavelength		850nm

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
Similarity Search		Support
Thumbnail		BestShot

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Analytics

Analytics Events	Based on AI Engine	Object detection, Virtual line(Crossing/Direction), Motion detection, Face mask detection, Social distancing detection, Slip & fall detection, Virtual area(Loitering/Intrusion/Enter/Exit/Appear/Disappear)
	Normal	Defocus detection, Tampering, Audio detection, Shock detection
Business Intelligence	Based on AI Engine	People counting, Queue management, Heatmap, Vehicle counting, Crowd counting

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: 16kHz(64kbps)
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 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, ICMP, IGMPv2, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, CDP, SRTP(TCP, UDP Unicast), MQTT, SMTP(StartTLS), 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)
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), Security Built-in Process Certification (IEC 62443-4-1)

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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	-10°C~+50°C(+14°F~+122°F)
	Humidity	0~100% RH(condensing)
	Others	Humidity control with AIR vent
Storage Condition	Temperature	-50°C~+60°C(-58°F~+140°F)
	Humidity	0~90% RH(non-condensing)
EPA(Effective Projected Area)		0.02㎡
Input Voltage		PoE(IEEE802.3af, Class3)
Power Consumption	PoE	Max. 11.2W, typical 8.4W
WisePower		Power monitoring, Eco mode

Mechanical

Color		White
Material		Aluminum, PC(Polycarbonate), Hard-coated dome
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)
	Recycle Rate	Recycled plastic: 10.63%
RAL Code		RAL9003
Product Dimensions		ø160x118mm(6.30x4.65")
Product Weight		1,020g(2.25lb)
Compatible Conduit Hole		12.7mm(1/2")(M20)
Compatible Gang Box		Single, Double, 4" Octagon, Square

Certifications & Standards

EMC	FCC 47 CFR 15 Subpart B Class A, ICES-3(A)/NMB-3(A), CE/UKCA - EN55032 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 62471
Environment	IEC/EN 63000, IEC 60529 IP52, IEC 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

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AI Detection Distance

Person(1.8m/5.9ft)	Wide	up to 35m(116ft)
	Tele	up to 85m(278ft)
Vehicle(1.45m/4.8ft)	Wide	up to 47m(153ft)
	Tele	up to 112m(368ft)

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)

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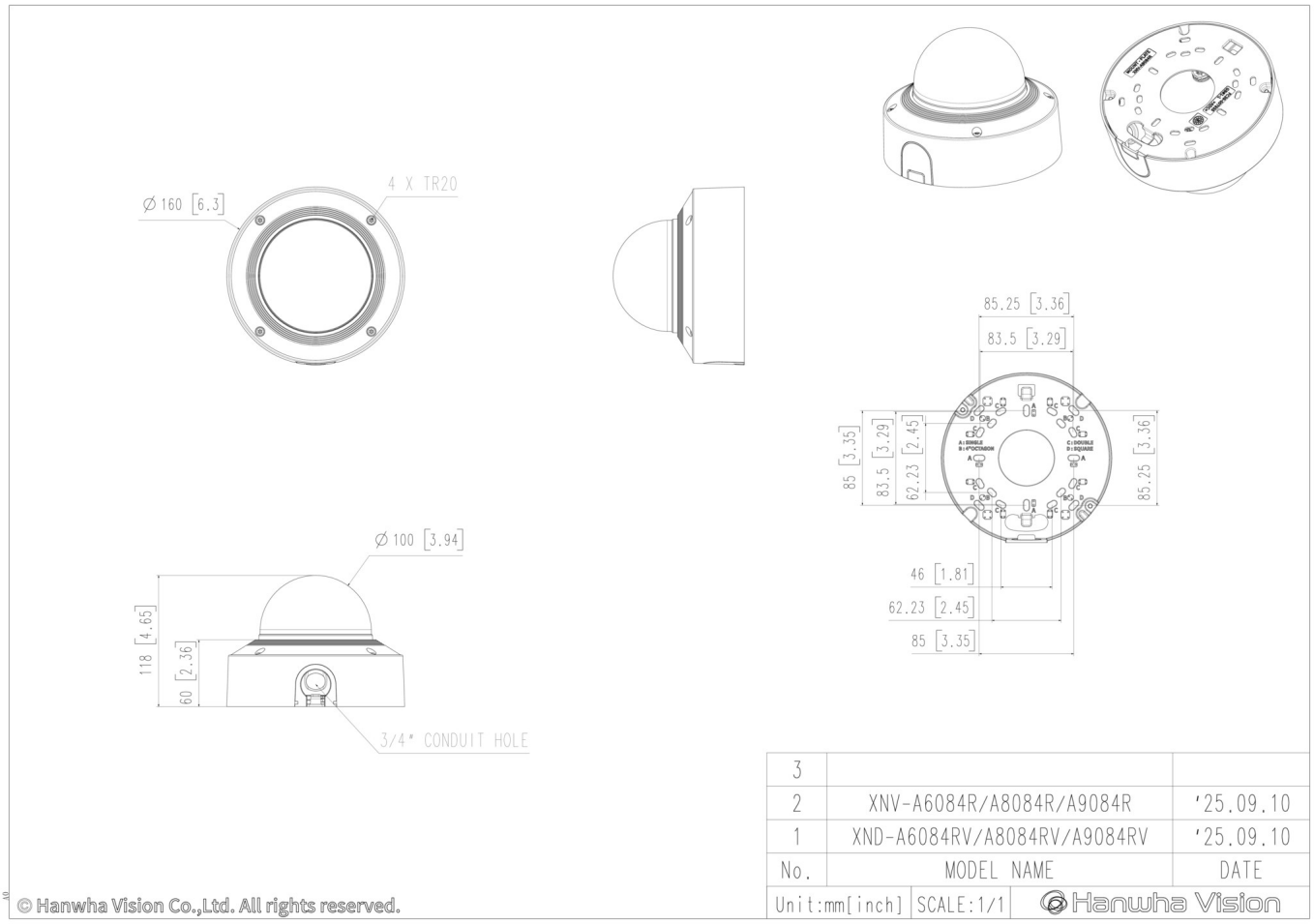
CAD

Unit: mm [inch]



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Compatible Devices

SBP-160HMW1

SBP-140CMB

SBP-180CMB

SBP-180CMS

SBP-150CMP

SBP-300CMP

SBP-900CMP

SBP-C15H

SBP-C15NP

SBP-C35H

SBP-C15P

SBP-150CMI

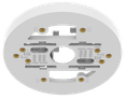
SBP-300CMI

SBP-300CMW1

SBP-900CMW

SBP-300CMTW

SBP-300CMTS


SBP-140CMT

SHD-1600FW

SHD-1602FPW

SBP-160WMW1

SBP-250WMW

SBP-400WMW

SBP-115PFA

SBP-160TMW1

SBV-180BW

SBV-180WW

SBP-150PMW

SBD-180PMW

SBP-156KMW

SBP-156LMW1

SBP-150NBW

SPB-VAN88W

SPP-C7400

SPP-C45W

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