



Network

Dome

XNV-A9016R

4K Outdoor Compact IR Network Dome Camera



Key Features

- 8MP Image Resolution
- 3mm Focal Length
- 25m IR Length
- IP66, IK10 Rated
- Compact size (ø120x65.5mm) for easy installation and discreet design
- Powered by Wisenet 9, Dual NPU for superior, separated AI processing and image enhancement
- Analytics events based on AI engine
- Business intelligence based on AI engine

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Specifications

Video		
Imaging Device	Size	1/2.8"
	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)	0.1
	BW(1/30sec, 30IRE)	0.01
Video Out		USB: USB Type C. Preview and installation ONLY. Requires WiFi dongle.
Lens		
Focal Length (mm)		3.0
Max Aperture Ratio (F number)	Wide	1.6
	Tele	1.6
Angular Field of View	Horizontal	108°
	Vertical	59°
	Diagonal	127°
Min. Object Distance		0.4m(1.31ft)
Focus Control		Manual
Lens Type		Fixed iris
Pan / Tilt / Rotate		
Pan / Tilt / Rotate Range	Pan	0°~351°
	Tilt	0°~64°
	Rotate	±90°
Operational		
Day & Night		Auto(ICR)
Backlight Compensation		BLC, HLC, WDR, SDR
Wide Dynamic Range (dB)		120

Operational

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	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
Digital PTZ		Support
Video Rotation		Flip, Mirror, Hallway view(90°/270°)
Alarm Interface	Others	Support alarm I/O via optional I/O box
Alarm Triggers		Analytics, Network disconnect, Alarm input, App event, 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, 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	25m(82.02ft)
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
Thumbnail		BestShot

Analytics

Analytics Events	Based on AI Engine	Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit), Motion detection, Face mask detection, Social distancing detection, Slip & fall detection, Stopped vehicle, Virtual area(Loitering/Intrusion/Enter/Exit/Appear/Disappear)
	Normal	Defocus detection, Tampering, Audio 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
Smart Codec		Manual, WiseStream(Based on AI engine)
Bitrate Control		H.265/H.264: CBR or VBR, MJPEG: VBR, MJPEG: VBR
Streaming	Unicast	Up to 20 users
	Multicast	Support
	Multiple Streaming	Up to 5 profiles
Protocol		IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SFTP, SMTP, ICMP, IGMPv2, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, CDP, SRTP(TCP, UDP Unicast), MQTT, PIM-SM, 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, 802.1AE(MACsec)
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)

General

Memory	RAM	4GB
	Flash	8GB eMMC

General

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	-40°C~+50°C(-40°F~+122°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
Storage Condition	Temperature	-50°C~+60°C(-58°F~+140°F)
	Humidity	0~90% RH(non-condensing)
Input Voltage		PoE(IEEE802.3af, Class3)
Power Consumption	PoE	Max. 10.0W, typical 7.7W
WisePower		Power monitoring, Eco mode

Mechanical

Color		White
Material		Aluminum, 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)
RAL Code		RAL9003
Product Dimensions		ø120x65.5mm(ø4.72x2.58")
Product Weight		555g(1.22b)

Certifications & Standards

EMC	None, 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
Environment	IEC/EN 63000, IEC 60529 IP66, IEC 62262 IK10, 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

AI Detection Distance

Person(1.8m/5.9ft)	Wide	up to 35m(113ft)
Vehicle(1.45m/4.8ft)	Wide	up to 46m(150ft)

DORI (EN62676-4 standard)

Detect (25PPM/ 8PPF)	Wide	55.8m(183.07ft)
Observe (63PPM/ 19PPF)	Wide	22.3m(73.23ft)
Recognize (125PPM/ 38PPF)	Wide	11.2m(36.61ft)
Identify (250PPM/ 76PPF)	Wide	5.6m(18.31ft)

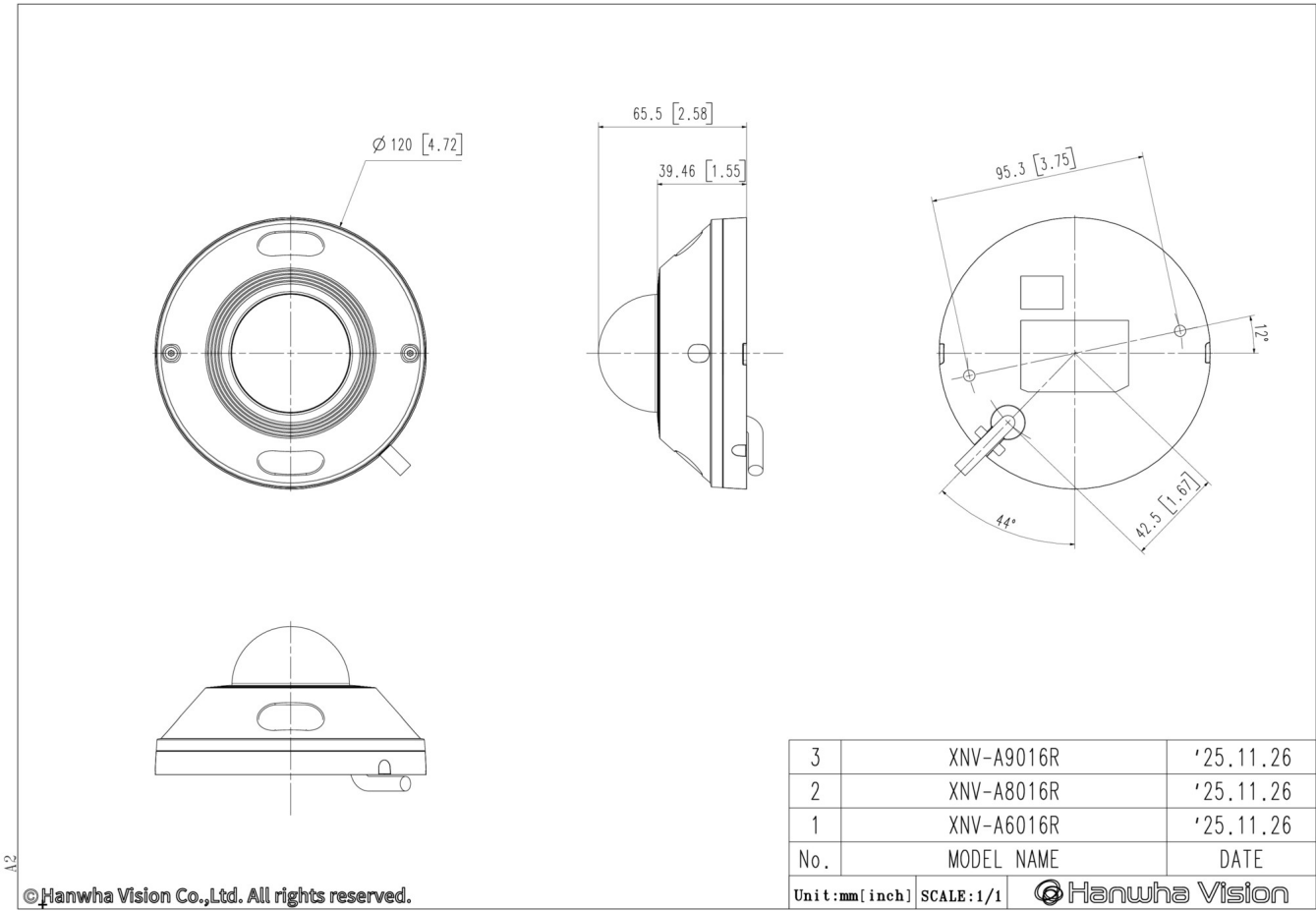
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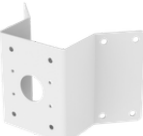


CAD

Unit: mm [inch]



Compatible Devices

						
SBP-120HMW	SBP-140CMB	SBP-180CMB	SBP-180CMS	SBP-150CMP	SBP-300CMP	SBP-900CMP
						
SBP-C15H	SBP-C15P	SBP-150CMI	SBP-300CMI	SBP-300CMW1	SBP-900CMW	SBP-300CMTW
						
SBP-300CMTS	SBP-125WMW1	SBP-200WMW	SBP-250WMW	SBP-300WMW	SBP-400WMW	SBP-115PFA
						
SBV-140TMW	SBD-110GP1	SBV-140BW	SBV-140WW	SBD-140PMW	SBD-140PMB	SBP-156KMW
						
SBD-140KMB	SBP-156LMW1	SBP-050NBW	SBV-122WCW	SPB-VAN68W	SPM-4210	