Hanwha Vision

Network Dome

XND-A8084RV
5MP AI IR Dome Camera

Key Features

• 3.3~9.3mm (2.8x) 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	Size	1/2.8"
	Type	CMOS
Resolution		1280x960, 1280x720, 640x360, 640x480, 320x180, 800x600, 2560x1440, 1600x1200, 320x240, 1024x768, 1920x1080, 2560x1920
Max. Framerate	H.265/H.264	30fps/25fps(60Hz/50Hz)
	MJPEG	30fps(@5MP Max. 5fps)
Min. Illumination (Lux)	Color(1/30sec, 30IRE)	0.04
	BW(1/30sec, 30IRE)	0.004
Video Out		USB: Micro USB Type C

Lens

Focal Length (mm)		3.3~9.3
Zoom Ratio	Optical	2.8x
Max Aperture Ratio (F number)	Wide	1.3
	Tele	2.3
Angular Field of View	Horizontal	99°~31°
	Vertical	71°~23°
	Diagonal	133°~39°
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	WDR, BLC, HLC, SSDR

Operational

Wide Dynamic Range (dB)		120
Digital Noise Reduction		SSNR V , WiseNR II (Based on AI engine)
Digital Image Stabilization		Support
Defog		Support
Motion Detection	Quantity	8ea
	Shape	8point Polygonal zones
Privacy Masking	Quantity	32ea
	Shape	8point Polygonal zones
	Color / Option	Blue, Purple, Mosaic, Gray, Black, White, Green, Yellow, Red
	Dynamic Privacy Masking: Color / Option	White, Red, Mosaic, Black, Gray, Green, Yellow, Purple, Blue
Gain Control		Manual, Max gain, Off
White Balance		Outdoor, AWC, ATW, NarrowATW, Manual, Indoor
LDC		Support(Fill/stretch mode)
Electronic Shutter	Mode	Prefer shutter control(Based on AI engine), Anti flicker, Minimum, Maximum
	Speed Range	2~1/30,000sec
Video Rotation		Mirror, Flip, 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		MQTT subscription, Time schedule, Storage disruption, Network disconnect, Alarm input, Day/Night, Analytics
Alarm Events When Alarm Trigger Occurred		Notification: e-mail, Handover: PTZ preset, send message by HTTP/HTTPS/TCP, File upload(video clip): FTP/SFTP, File upload(image): e-mail/FTP/SFTP, Recording: SD/SDHC/SDXC or NAS recording at event triggers, Audio clip playback, Alarm output, MQTT: publication
Audio In		Selectable(mic in/line in)
Audio Out		Line out
Light Type		IR LED
Light Viewable Length	IR	WiseIR 40m(131.23ft)
IR Wavelength		850nm

Analytics

Classified Object Type		Face, License plate, Vehicle, Person
Attributes	Person	Bag, Gender, Upper/Lower clothes color
	Vehicle	Color, Type(car, bus, truck, motorcycle, bicycle)
	Face	Age, Gender, Glasses, Face mask
Thumbnail		BestShot

Analytics

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

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.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		UPnP, RTP(UDP), IPv4, HTTPS, FTP, NTP, TCP/IP, ARP, DHCP, SMTP(StartTLS), RTCP, IPv6, UDP/IP, Bonjour, DNS, SNMPv1/v2c/v3(MIB-2), RTP(TCP), SSL/TLS, QoS, DDNS, IGMP, HTTP, SFTP, Syslog, CDP, LLDP, MQTT, RTSP, ICMP, SRTP(TCP, UDP Unicast)
Application Programming Interface	ONVIF	M, G, T, S
	Others	Hanwha Vision Open Platform, SUNAPI(HTTP API)
Direct Cloud Connection		Support

Security

OS / Firmware Protect	Secure boot, Encrypted firmware, Signed firmware
User authentication	Prevent brute-force attack, Digest authentication
Network authentication	IEEE 802.1X(EAP-TLS, EAP-LEAP, EAP-PEAP, MSCHAPv2)
Secure Communication	HTTPS, SRTP, WSS(WebSocket Secure)
Access Control	IP-based access control, Auto logout, MAC-based access control
Data Protect	Encrypt compress for live recording file export, Encryption credentials
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	ETSI EN 303 645, Secure element(FIPS 140-3 level3, CC EAL6+)

General

Memory	RAM	4GB
	Flash	8GB eMMC
Edge Storage	Micro SD/SDHC/SDXC	Max. 1TB x 1slot

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. 9.4W, typical 7.0W
Wisepower		Power monitoring, ECO mode

Mechanical

Color		White
Material		Aluminum, Hard-coated dome , PC(Polycarbonate)
Material Management	Declaration	Conflict mineral policy(Section 1502 of US Dodd Frank Act), REACH(Regulation (EC) No. 1907/2006), RoHS(EU RoHS directive 2011/65/EU and IEC/EN 63000:2018)
	Recycle Rate	Recycled plastic: 10.72%
RAL Code		RAL9003
Product Dimensions		ø160x118mm(6.30x4.65")
Product Weight		1,010g(2.23lb)
Compatible Conduit Hole		12.7mm(1/2")(M20)
Compatible Gang Box		Square, 4" Octagon, Double, Single

Certifications & Standards

EMC	VCCI CISPR 32 Class A, RCM AS-NZS CISPR 32 Class A, ICES-3(A)/NMB-3(A), KS C 9832 Class A, KS C 9835, FCC 47 CFR 15 Subpart B Class A, CE/UKCA - EN55032 Class A, EN 50130-4, EN 61000-3-2, EN 61000-3-3
Safety	IEC 62471, UL 62368-1, CAN/CSA C22.2 NO. 62368-1
Environment	IEC/EN 63000, IEC 60068-2-2, IEC 60068-2-27, IEC 60068-2-78, IEC 60068-2-1, IEC 60068-2-6, IEC 62262 IK10, IEC 60529 IP52, IEC 60068-2-14

DORI (EN62676-4 standard)

Detect (25PPM/ 8PPF)	Wide	43.7m(143.47ft)
	Tele	184.6m(605.71ft)
Observe (63PPM/ 19PPF)	Wide	17.5m(57.39ft)
	Tele	73.8m(242.29ft)
Recognize (125PPM/ 38PPF)	Wide	8.7m(28.69ft)
	Tele	36.9m(121.14ft)
Identify (250PPM/ 76PPF)	Wide	4.4m(14.35ft)
	Tele	18.5m(60.57ft)

Hanwha Vision

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CAD

Unit: mm [inch]

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4 X TR20

Ø 100.0 [3.94]

Ø 160.0 [6.3]

60.0[2.36]

118.0[4.65]

3/4" CONDUIT HOLE

Reference image

STANDARD GANG		
A	SINGLE	83.5 [3.29]
B	4" OCTAGON	88.0 [3.46]
C' C"	DOUBLE	83.5 [3.29] X 46.0 [1.81]
D	SQUARE	120.2 [4.73]
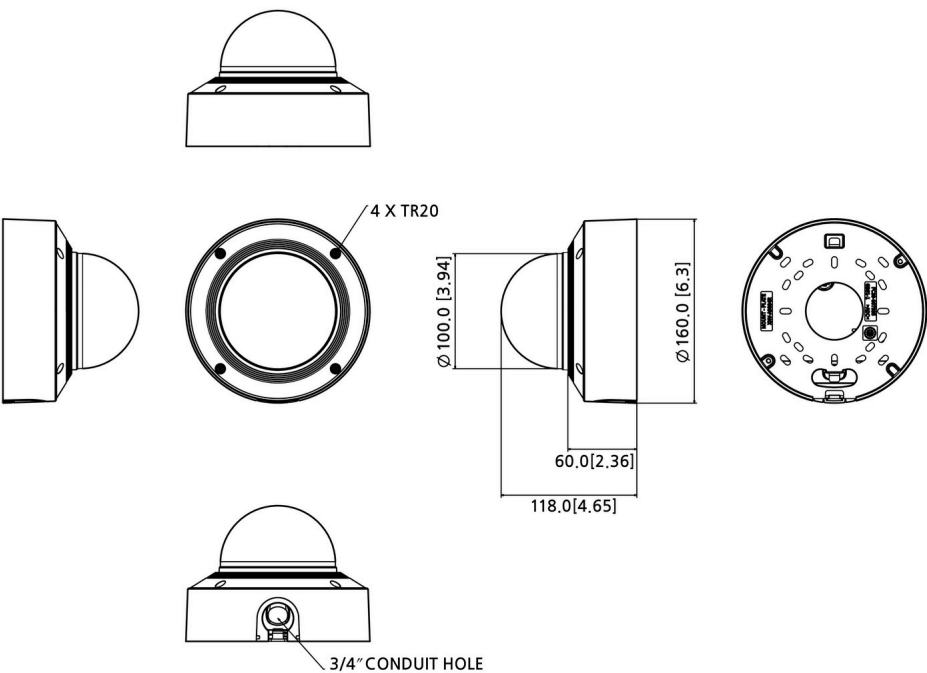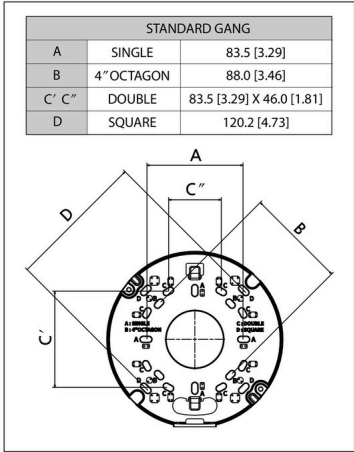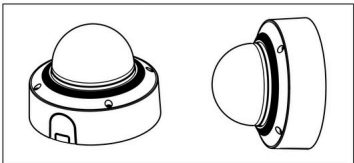
Revision	V1.0
Revision Date	25/05/30
Paper Size	A0
Unit	mm [inch]
Scale	1 : 1

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