



Network

# PNM-C32083RQZ

8MP x 4CH Multi-directional Camera



## Key Features

- AI engine-based analysis events:  
Object detection (people/faces/vehicles/license plates),  
virtual lines (passing/direction),  
virtual areas (Loitering/intrusion/entering/exiting)
- Attributes:  
Vehicles (Type: car/bus/truck/motorcycle/bicycle, color),  
people (clothing color)
- BestShot support
- AI based WiseNR II, Auto prefer shutter control, WiseStream III
- PTRZ control: Remotely set lens position/angle
- IR visibility: Up to 25m
- Next level cybersecurity (TPM 2.0 with FIPS 140-2 level2)
- Reinforced durability (IP66, IK10, NEMA4X)

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## Specifications

Video		
Imaging Device	Size	1/1.8"
	Type	CMOS
Resolution	3840x2160, 1920x1080, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360	
Max. Framerate	H.265/H.264	15fps/15fps(60Hz/50Hz)
	MJPEG	15fps(@8MP Max. 5fps)
	Others	Max. 20fps when AI off(MJPEG@8MP Max. 5fps)
Min. Illumination (Lux)	Color(1/30sec, 30IRE)	0.07
	BW(1/30sec, 30IRE)	0.007
Lens		
Focal Length (mm)	4.38~9.33	
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	1.3m(4.27ft)	
Focus Control	Simple focus	
Lens Type	P iris	
Pan / Tilt / Rotate		
Pan / Tilt / Rotate Range	Pan	0°~360°
	Tilt	30°~90°
	Rotate	0°~90°
	Others	Remote adjustment(Max. 200cycles)
Operational		
Day & Night	Auto(ICR)	

## Operational

<b>Backlight Compensation</b>		BLC, WDR, SDR
<b>Wide Dynamic Range (dB)</b>		120
<b>Digital Noise Reduction</b>		WiseNR II (Based on AI engine), SSNR V
<b>Defog</b>		Support
<b>Motion Detection</b>	Quantity	8ea
	Shape	8point Polygonal zones
<b>Privacy Masking</b>	Quantity	6ea
	Shape	4point Quadrangle zones
	Color / Option	Gray, Black, White
<b>Gain Control</b>		Low, Middle, High
<b>White Balance</b>		ATW, AWC, Manual, Indoor, Outdoor
<b>LDC</b>		Support
<b>Electronic Shutter</b>	Mode	Minimum, Maximum, Anti flicker, Prefer shutter control(Based on AI engine)
	Speed Range	1/5~1/12,000sec
<b>Video Rotation</b>		Flip, Mirror, Hallway view(90°/270°) - Each channel separately
<b>Alarm Interface</b>	In/Out	2 configurable I/O ports
	Others	Support extra alarm I/O via optional I/O box
<b>Alarm Triggers</b>		Analytics, Network disconnect, Alarm input, App event, Time schedule, MQTT subscription, Case tampering
<b>Alarm Events When Alarm Trigger Occurred</b>		File upload(image): e-mail/FTP, 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
<b>Audio In</b>		Support via optional I/O box
<b>Audio Out</b>		Support via optional I/O box
<b>Light Type</b>		IR LED
<b>Light Viewable Length</b>	IR	WiseIR PoE++ 25m(82.02ft) / PoE+ 15m(49.21ft)
<b>IR Wavelength</b>		850nm

## Analytics

<b>Classified Object Type</b>		Person, Face, Vehicle, License plate
<b>Attributes</b>	Person	Upper/Lower clothes color
	Vehicle	Type(car, bus, truck, motorcycle, bicycle), Color
<b>Thumbnail</b>		BestShot
<b>Analytics Events</b>	Based on AI Engine	Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit)
	Normal	Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Virtual area(Appear/Disappear)

## Network

Ethernet		Metal shielded RJ-45(10/100/1000BASE-T)
Video Compression		H.265/H.264: Main/High, MJPEG
Smart Codec		Manual, WiseStreamIII
Bitrate Control		H.265/H.264: CBR or VBR, MJPEG: VBR
Streaming	Unicast	Up to 10 users
	Multicast	Support
	Multiple Streaming	Up to 3 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), MQTT
Application Programming Interface	ONVIF	S, G, T, M
	Others	SUNAPI(HTTP API), Hanwha Vision 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 export	
Audit	Access / System / Event Log management	
Device ID	Device certificate(Hanwha Vision Root CA)	
Secure Storage	TPM(Trusted platform module), SDcard partition encrypt(AES-256)	
Security Certificate	TPM 2.0 with FIPS 140-2 level2, Consumer IoT Security Standard (ETSI EN 303 645), Security Built-in Process Certification (IEC 62443-4-1)	

## General

SoC	Type	CV5
Memory	RAM	8GB
	Flash	8GB
Edge Storage	Micro SD/SDHC/SDXC	Max. 512GB x 2slot(Total 1TB)
Edge Storage(OnCloud)	Micro SD/SDHC/SDXC	Max. 1TB x 2slots (Total 2TB) *Hanwha Vision branded microSD cards have been certified and recommended for OnCloud edge recording.

## Environmental & Electrical

Operating Condition	Temperature	-40°C~+55°C(-40°F~+131°F)
	Humidity	0~100% RH(condensing)
	Others	Start up should be done at above -20°C, Humidity control with AIR vent

### Environmental & Electrical

Storage Condition	Temperature	-50°C~+60°C(-58°F~+140°F)
	Humidity	0~90% RH(non-condensing)
EPA(Effective Projected Area)		0.035m <sup>2</sup>
Input Voltage		PoE+(IEEE802.3at, Class4), PoE++(IEEE802.3bt type3, Class6)
Power Consumption	PoE	Max. 41W, typical 22W
	Others	PoE+: Max. 25.5W, typical 22W

### Mechanical

Color	White
Material	Aluminum, Plastic, Hard-coated dome
RAL Code	RAL9003
Product Dimensions	ø312.7x145.9mm(ø12.31x5.74")
Product Weight	4,400g(9.7lb)
Compatible Conduit Hole	19.1mm(3/4")(M25)
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 IP66, IEC 62262 IK10, NEMA 250 type 4X

### 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]

