

Network

PNM-C16013RVQ

4CH mini AI Camera

Key Features

· 4CH AI based Analytics events :
classified object (Person/Face/Vehicle/License plate)
· AI based loitering detection and line crossing detection
· AI based WiseNR II , Auto prefer shutter control, WiseStreamIII
· IR viewable length 20m (65.6 ft)
· Supports hallway mode
· 15fps@4MP
· 3.19mm fixed lens
· Next level cybersecurity (TPM 2.0, FIPS 140-2 certified)
· Reinforced durability (IP66, NEMA4X, IK09)

Design and specifications are subject to change without notice. The latest product information / specification can be found at HanwhaVision.com
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Specifications

Video

Imaging Device	Size	1/2.8"
	Type	CMOS
Resolution		2592x1520, 1920x1080, 640x360
Max. Framerate	H.265/H.264	15fps/15fps(60Hz/50Hz)
	MJPEG	15fps(@4MP Max. 5fps)
Min. Illumination (Lux)	Color(1/30sec, 30IRE)	0.05
	BW(1/30sec, 30IRE)	0.005
Video Out		USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.

Lens

Focal Length (mm)		3.19
Max Aperture Ratio (F number)	Wide	1.2
Angular Field of View	Horizontal	97°
	Vertical	54°
	Diagonal	116°
Min. Object Distance		2m(6.56ft)
Focus Control		Manual
Lens Type		Fixed iris
Mount Type		M12

Pan / Tilt / Rotate

Pan / Tilt / Rotate Range	Pan	0°~360°(100° per CH)
	Tilt	0°~75°
	Rotate	0°~90°

Operational

Day & Night	Auto(ICR)
Backlight Compensation	BLC, WDR, SSDR
Wide Dynamic Range (dB)	120

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Operational

Digital Noise Reduction		WiseNR II (Based on AI engine), SSNR V
Motion Detection	Quantity	8ea
	Shape	8point Polygonal zones
Privacy Masking	Quantity	6ea
	Shape	Rectangular zones
	Color / Option	Gray, Black, White
Gain Control		Low, Middle, High
White Balance		ATW, AWC, Manual, Indoor, Outdoor
LDC		Support
Electronic Shutter	Mode	Minimum, Maximum, Anti flicker, Prefer shutter control(Based on AI engine)
	Speed Range	1/5~1/12,000sec
Video Rotation		Flip, Mirror, Hallway view(90°/270°) - Each channel separately
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
Alarm Events When Alarm Trigger Occurred		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
Audio In		Support via optional I/O box
Audio Out		Support via optional I/O box
Light Type		IR LED
Light Viewable Length	IR	20m(65.62ft)
IR Wavelength		850nm

Analytics

Classified Object Type		Person, Face, Vehicle, License plate
Attributes	Vehicle	Type(car, bus, truck, motorcycle, bicycle)
Thumbnail		DetectionShot
Analytics Events	Based on AI Engine	Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit)
	Normal	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: Main, H.264: Main/Baseline/High,MJPEG
Smart Codec	Manual, WiseStreamIII

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Bitrate Control		H.265/H.264: CBR or VBR, MJPEG: VBR
Streaming	Unicast	Up to 10 users
	Multicast	Support
	Multiple Streaming	Up to 4 profiles, * Each profiles support different resolutions that are not identical
Protocol		IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SMTP, ICMP, IGMPv2, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, CDP, SRTP(TCP, UDP Unicast), MQTT
Application Programming Interface	ONVIF	S, 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), SRTP
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

General

Memory	RAM	4GB
	Flash	512MB
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	0~95% RH(non-condensing)
	Others	Start up should be done at above -35°C, Humidity control with AIR vent
Storage Condition	Temperature	-50°C~+60°C(-58°F~+140°F)
	Humidity	0~90% RH(non-condensing)
Input Voltage		PoE+(IEEE802.3at, Class4)
Power Consumption	PoE	Max. 23.5W, typical 13W

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Mechanical

Color	White
Material	Aluminum, Hard-coated dome
RAL Code	RAL9003
Product Dimensions	ø200x80mm(7.87x3.15")
Product Weight	1,380g(3.04lb)
Compatible Conduit Hole	Support conduit compatibility via optional adaptor
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, 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 IK09, NEMA 250 type 4X

DORI (EN62676-4 standard)

Detect (25PPM/ 8PPF)	Wide	45.9m(150.47ft)
Observe (63PPM/ 19PPF)	Wide	18.3m(60.19ft)
Recognize (125PPM/ 38PPF)	Wide	9.2m(30.09ft)
Identify (250PPM/ 76PPF)	Wide	4.6m(15.05ft)

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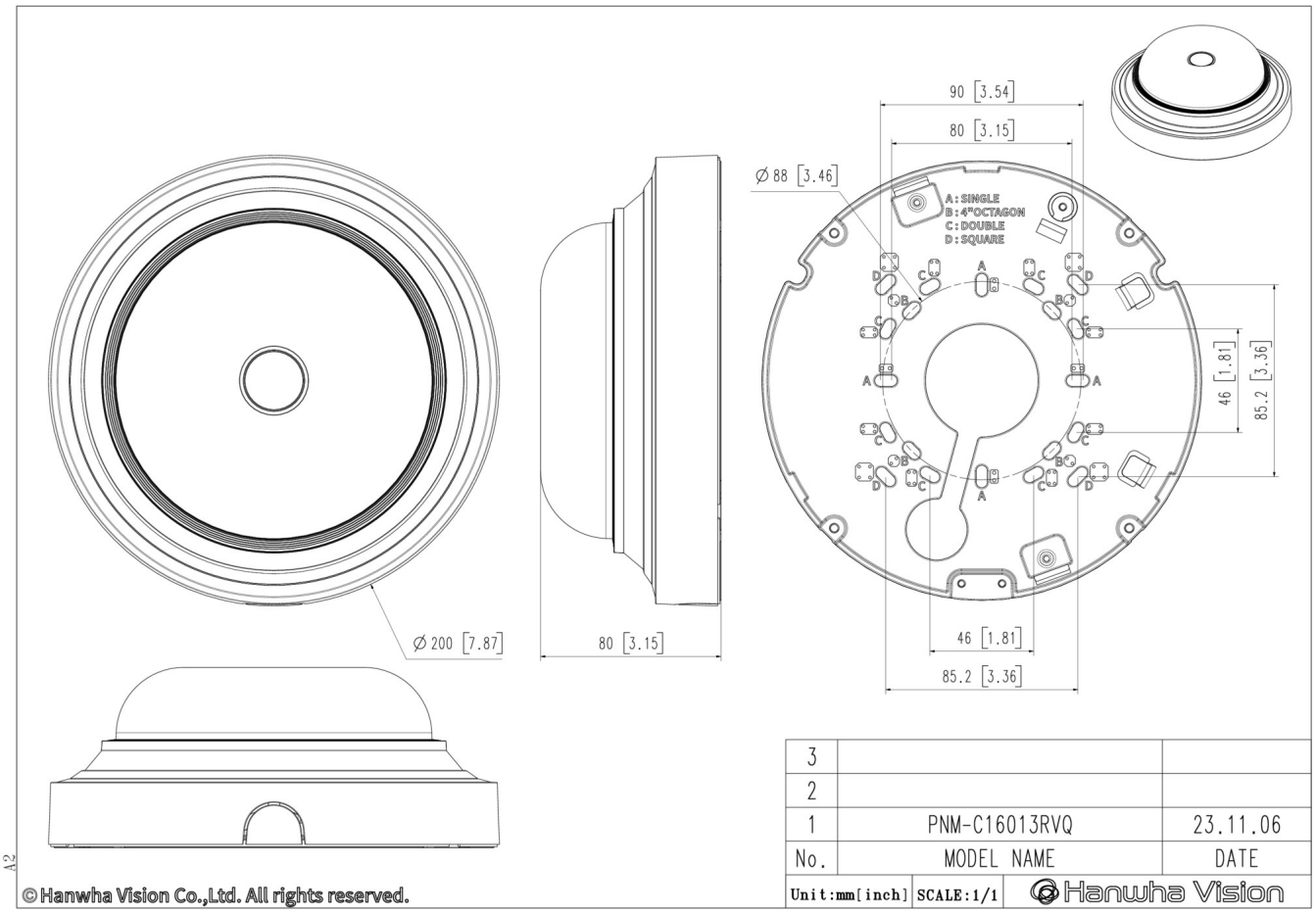
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CAD

Unit: mm [inch]



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