



Network

Multi-sensor

# 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)

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## Specifications

### Video

Imaging Device	1/2.8" CMOS: each CH
Resolution	2592x1520, 1920x1080, 640x360
Max. Framerate	H.265/H.264: Max. 15fps/15fps MJPEG: Max. 15fps(@4MP Max. 5fps)
Min. Illumination	Color: 0.05Lux(F1.2, 1/30sec, 30IRE) BW: 0.005Lux(F1.2, 1/30sec, 30IRE), 0Lux(IR LED on)
Video Out	USB: Micro USB Type B, 2592x1520 for installation

### Lens

Focal Length (Zoom Ratio)	3.19mm fixed focal
Max. Aperture Ratio	F1.2
Angular Field of View	H: 97° / V: 54° / D: 116°
Min. Object Distance	2m(6.56ft)
Focus Control	Manual
Lens Type	Fixed Iris
Mount Type	M12

### Pan / Tilt / Rotate

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

Camera Title	Displayed up to 85 characters
Day & Night	Auto(ICR)
Backlight Compensation	BLC, WDR, SDR
Wide Dynamic Range	120dB
Digital Noise Reduction	SSNR V, WiseNR II (Based on AI engine)
Motion Detection	8ea, 8point Polygonal zones
Privacy Masking	6ea, Rectangular zones - Color: Gray, Black, White
Gain Control	Low / Middle / High
White Balance	ATW / AWC / Manual / Indoor / Outdoor
LDC	Support
Electronic Shutter Speed	Minimum / Maximum / Anti flicker(1/5~1/12,000sec) Auto Prefer shutter control(Based on AI engine)
Video Rotation	Flip, Mirror, Hallway view(90°/270°) - Each channel separately

Analytics	Classified object type: Person/Face/Vehicle/License plate Attributes: Vehicle(Type: Car/Bus/Truck/Motorcycle/Bicycle) Support DetectionShot Analytics events based on AI engine - Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events - Motion detection, Tampering, Virtual area(Appear/Disappear)  * Audio detection, Sound classification(via NW I/O box SPM-4210)
Alarm Triggers	Analytics, Network disconnect, App event, Time schedule, MQTT subscription * Alarm input(via NW I/O Box SPM-4210)
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(via NW I/O box SPM-4210) - Handover: PTZ preset, Send message by HTTP/HTTPS/TCP - MQTT: publication
IR Viewable Length	20m(65.62ft)

**Network**

Ethernet	Metal shielded RJ-45(10/100/1000BASE-T)
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG
Smart Codec	Manual(5ea area), WiseStream II, WiseStreamIII(Based on AI engine)
Bitrate Control	H.264/H.265: CBR or VBR MJPEG: VBR
Streaming	Unicast(10 users) / Multicast Multiple streaming: Up to 4 profiles(include preview profile) * 4 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, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, CDP, SRTP(TCP, UDP Unicast), MQTT
Application Programming Interface	ONVIF Profile S/T/M SUNAPI(HTTP API) Wisenet open platform

**Security**

OS / Firmware Protect	Encrypted Firmware, Secure boot, Signed Firmware
User authentication	Digest Authenticaon
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
Audit	Access / System / Event Log management
Device ID	Device certificate(Hanwha Private Root CA)
Secure Storage	TPM, SDcard partition encrypt
Security Certificate	TPM with FIPS 140-2 level 2

**General**

Webpage Language	English, Korean, Chinese, French, Italian, Spanish, German, Japanese, Russian, Portuguese, Czech, Polish, Turkish, Dutch, Greek, Hungarian
Edge Storage	Micro SD/SDHC/SDXC 2slot Max. 1TB(512GBx2)
Memory	4GB RAM, 512MB Flash

**Environmental & Electrical**

## PNM-C16013RVQ

Operating Temperature / Humidity	-40°C~+55°C(-40°F~+131°F) * Start up should be done at above -35°C 0~95% RH(non-condensing) Humidity control /w AIR vent
Storage Temperature / Humidity	-50°C~+60°C(-58°F~+140°F) / 0~90% RH
Certification	IP66, NEMA4X, IK09
Input Voltage	PoE+(IEEE802.3at type 2, Class4)
Power Consumption	PoE+: Max 23.5W, typical 13W

### Mechanical

Color / Material	White / Aluminum Hard-coated dome bubble
RAL Code	RAL9003
Product Dimensions / Weight	ø200x80mm(ø7.87x3.15"), 1380g(3.04 lb)
Compatible Conduit hole / Gangbox	None / single, double, 4" octagon, 4" square Sold separately conduit hole accessory: SBP-060BA
Hanging Mount (Dome)	SBP-200HMW
Ceiling Mount (Assy)	SBP-150CMI/300CMI, SBP-300CMW1/900CMW, SBP-300CMTW, SBP-300CMTS
Wall Mount	SBP-300WMW/WMW1, SBP-390WMW2
Pole Mount	SBP-300PMW2
In-ceiling Mount	SHD-2000FPW
Parapet Mount	SBP-300LMW, SBP-156LMW1
Corner Mount	SBP-300KMW1
Cabinet	SBP-300NBW
Conduit Adaptor	SBP-060BA

### Certifications & Standards

EMC	FCC 47 CFR 15 Subpart B Class A ICES-3(A)/NMB-3(A) CE/UKCA - EN 55032 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	EN IEC 63000 IEC 60529 IP66, IEC 62262 IK09 NEMA 250 type 4X

### DORI (EN62676-4 standard)

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

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CAD

Unit:mm [inch]

