



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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4CH mini AI Camera



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° |
|---------------------------|------------------------------------|

Operational

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|--------------------------|--|
| 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 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 |
| 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

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|------------------|--|
| 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

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|-------------|---|
| 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]

