![Hanwha Vision]

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)

PNM-C16013RVQ

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

Camera Title	Displayed up to 85 characters
Day & Night	Auto(ICR)
Backlight Compensation	BLC, WDR, SSDR
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

Design and specifications are subject to change without notice. The latest product information / specification can be found at HanwhaVision.com
Hanwha Vision is formerly known as Hanwha Techwin.

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 Authenticaton
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

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)

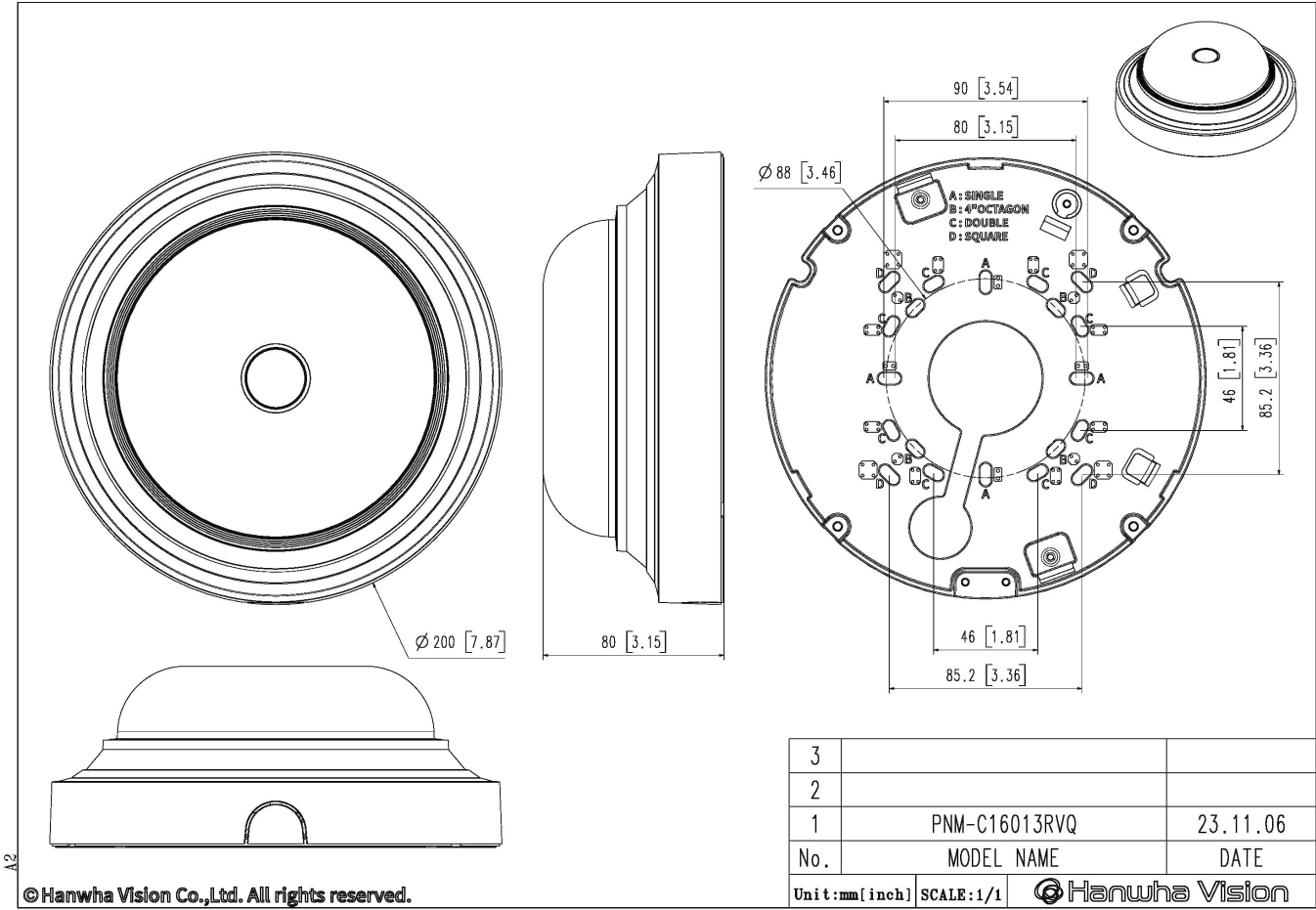|	
Detect (25PPM/ 8PPF)	45.9m(150.47ft)
Observe (63PPM/ 19PPF)	18.3m(60.19ft)
Recognize (125PPM/ 38PPF)	9.2m(30.09ft)
Identify (250PPM/ 76PPF)	4.6m(15.05ft)

Hanwha Vision

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CAD

Unit:mm [inch]

90 [3.54]
80 [3.15]
Ø 88 [3.46]

A : SINGLE
B : 4"OCTAGON
C : DOUBLE
D : SQUARE

46 [1.81]
85.2 [3.36]

Ø 200 [7.87]   80 [3.15]

46 [1.81]
85.2 [3.36]

No.	MODEL NAME	DATE
3		
2		
1	PNM-C16013RVQ	23.11.06

Unit:mm[inch] SCALE:1/1 Hanwha Vision

A2

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