



Network

Dome

PND-A7082RV

4MP IR Indoor Vandal Dome AI Camera



Key Features

- 4MP Image Resolution
- 4.6~9.35mm Focal Length
- 60m IR Length
- IP52, IK10 Rated
- Powered by WN9, Network AI IR Indoor Dome Camera
- 0.03Lux@F1.3 (Color), 0Lux (B/W IR LED On)
- 4.6~9.35mm (2.0x)
- FoV H:105°~47°
- Motorized Varifocal Lens
- Hard-coated dome bubble
- H.265/H.264/MJPEG Codec
- IR Viewable Length 60m (196.85ft)
- USB Port for Easy Installation
- Selectable microphone input (mic in/line in/built-in 3 mics)
- AI-Based WiseStream
- WiseNR II (using AI engine)
- Day & Night (ICR)
- extremeWDR (120dB)
- DIS with Built-In Gyro Sensor
- Handover
- Dynamic Privacy Mask
- AI Engine Based Analytics
 - Motion & Object Detection
 - Line Crossing
 - IVA Area
 - Slip & Fall
 - Sound Classification

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Specifications

Video

Imaging Device	Size	1/1.8"
	Type	CMOS
Resolution		2592x1520, 2560x1440, 1920x1080, 1600x1200, 1280x960, 1280x720, 1024x768, 800x600, 640x480, 640x360, 320x240, 320x180
Max. Framerate	H.265/H.264	60fps/50fps(60Hz/50Hz)(WDR off) / 30fps/25fps(60Hz/50Hz)(WDR on)
	MJPEG	30fps(@4MP Max. 5fps)
Min. Illumination (Lux)	Color(1/30sec, 30IRE)	0.03
	BW(1/30sec, 30IRE)	0.003
Video Out		USB: USB Type C. Preview and installation ONLY. Requires WiFi dongle.

Lens

Focal Length (mm)		4.6~9.35mm
Zoom Ratio	Optical	2.0x
Max Aperture Ratio (F number)	Wide	1.3
	Tele	2.15
Angular Field of View	Horizontal	105°~47°
	Vertical	58°~27°
	Diagonal	128°~55°
Min. Object Distance		1.5m(4.92ft)
Focus Control		Simple focus
Lens Type		P iris(IR corrected)

Pan / Tilt / Rotate

Pan / Tilt / Rotate Range	Pan	0°~350°
	Tilt	-45°~85°
	Rotate	0°~355°

Operational

Day & Night	Auto(ICR)
Backlight Compensation	BLC, HLC, WDR, SSDR

Operational

Wide Dynamic Range (dB)		120
Digital Noise Reduction		WiseNR II (Based on AI engine), SSNR V
Digital Image Stabilization		Support
Defog		Support
Motion Detection	Quantity	8ea
	Shape	8point Polygonal zones
Privacy Masking	Quantity	32ea
	Shape	8point Polygonal zones
	Color / Option	Gray, Green, Red, Blue, Black, White, Mosaic, Purple, Yellow
	Dynamic Privacy Masking: Color / Option	Gray, Green, Red, Blue, Black, White, Mosaic, Purple, Yellow
Gain Control		Off, Max gain, Manual
White Balance		ATW, NarrowATW, AWC, Manual, Indoor, Outdoor
LDC		Support(Fill/stretch mode)
Electronic Shutter	Mode	Minimum, Maximum, Anti flicker, Prefer shutter control(Based on AI engine)
	Speed Range	2~1/30,000sec
Video Rotation		Flip, Mirror, Hallway view(90°/270°)
Alarm Interface	In/Out	2 configurable I/O ports
	Others	12VDC output, Support extra alarm I/O via optional I/O box
Alarm Triggers		Analytics, Network disconnect, Alarm input, Time schedule, MQTT subscription, Case tampering, Day/Night, Storage disruption
Alarm Events When Alarm Trigger Occurred		File upload(image): e-mail/FTP/SFTP, File upload(video clip): FTP/SFTP, Notification: e-mail, Recording: SD/SDHC/SDXC or NAS recording at event triggers,Alarm output, Handover: PTZ preset,send message by HTTP/HTTPS/TCP,Audio clip playback, MQTT: publication
Audio In		Selectable(mic in/line in), Built-in 3mics
Audio Out		Line out
Light Type		IR LED
Light Viewable Length	IR	WiseIR 60m(196.85ft)
IR Wavelength		850nm

Analytics

Classified Object Type		Person, Face, Vehicle, License plate
Attributes	Person	Upper/Lower clothes color, Gender, Bag
	Vehicle	Type(car, bus, truck, motorcycle, bicycle), Color
	Face	Age, Gender, Face mask, Glasses
Similarity Search		Support
Thumbnail		BestShot

Analytics

Analytics Events	Based on AI Engine	Object detection, Virtual line(Crossing/Direction), Motion detection, Face mask detection, Social distancing detection, Slip & fall detection, Virtual area(Loitering/Intrusion/Enter/Exit/Appear/Disappear)
	Normal	Defocus detection, Tampering, Audio detection, Shock detection
Business Intelligence	Based on AI Engine	People counting, Queue management, Heatmap, Vehicle counting, Crowd counting

Network

Ethernet		Metal shielded RJ-45(10/100/1000BASE-T)
Video Compression		H.265/H.264: Main/Baseline/High, MJPEG
Audio Compression		G.711(PCM): 8kHz(64kbps), G.726(ADPCM): 8kHz(16/24/32/40kbps), AAC-LC: 16kHz(48kbps), OPUS: 16kHz(64kbps)
Smart Codec		WiseStream(Based on AI engine)
Bitrate Control		H.265/H.264: CBR or VBR, MJPEG: VBR
Streaming	Unicast	Up to 20 users
	Multicast	Support
	Multiple Streaming	Up to 5 profiles, 3 virtual channel support
Protocol		IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SFTP, SMTP, ICMP, IGMPv2, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, CDP, SRTP(TCP, UDP Unicast), MQTT, Syslog
Application Programming Interface	ONVIF	S, G, T, M
	Others	SUNAPI(HTTP API), Hanwha Vision Open Platform
Direct Cloud Connection		Support

Security

OS / Firmware Protect		Encrypted firmware, Secure boot, Signed firmware
User authentication		Digest authentication, Prevent brute-force attack
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, MAC-based access control, Auto logout
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		SDcard partition encrypt(AES-256), Secure element
Supply Chain Security		SBOM
Security Certificate		Secure element(FIPS 140-3 level3, CC EAL6+), Consumer IoT Security Standard (ETSI EN 303 645)

General

SoC	Type	Wisenet 9
	Dual NPU	Support
Memory	RAM	4GB
	Flash	8GB eMMC
Edge Storage	Micro SD/SDHC/SDXC	Max. 1TB x 2slot(Total 2TB)
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	-25°C~+50°C(-13°F~+122°F)
	Humidity	0~100% RH(condensing)
	Others	Humidity control with AIR vent
Storage Condition	Temperature	-50°C~+60°C(-58°F~+140°F)
	Humidity	0~90% RH(non-condensing)
EPA(Effective Projected Area)		0.0148m ²
Input Voltage		PoE+(IEEE802.3at, Class4), 12VDC
Power Consumption	PoE	Max. 15.0W, typical 9.0W
	12VDC	Max. 12.7W, typical 7.8W
WisePower		Power monitoring
Power Redundance Failover		Support

Mechanical

Color	White
Material	Aluminum, Hard-coated dome
RAL Code	RAL9003
Product Dimensions	ø160x125mm(ø6.30x4.92")
Product Weight	1550g(3.42lb)
Compatible Conduit Hole	12.7mm(1/2")(M20)
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 IP52, IEC 62262 IK10, IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6, IEC 60068-2-14, IEC 60068-2-27, IEC 60068-2-78

AI Detection Distance

Person(1.8m/5.9ft)	Wide	up to 48m(159ft)
	Tele	up to 112m(367ft)
Vehicle(1.45m/4.8ft)	Wide	up to 65m(215ft)
	Tele	up to 151m(495ft)

DORI (EN62676-4 standard)

Detect (25PPM/ 8PPF)	Wide	39.8m(130.51ft)
	Tele	119.2m(391.15ft)
Observe (63PPM/ 19PPF)	Wide	15.9m(52.20ft)
	Tele	47.7m(156.46ft)
Recognize (125PPM/ 38PPF)	Wide	8.0m(26.10ft)
	Tele	23.8m(78.23ft)
Identify (250PPM/ 76PPF)	Wide	4.0m(13.05ft)
	Tele	11.9m(39.12ft)

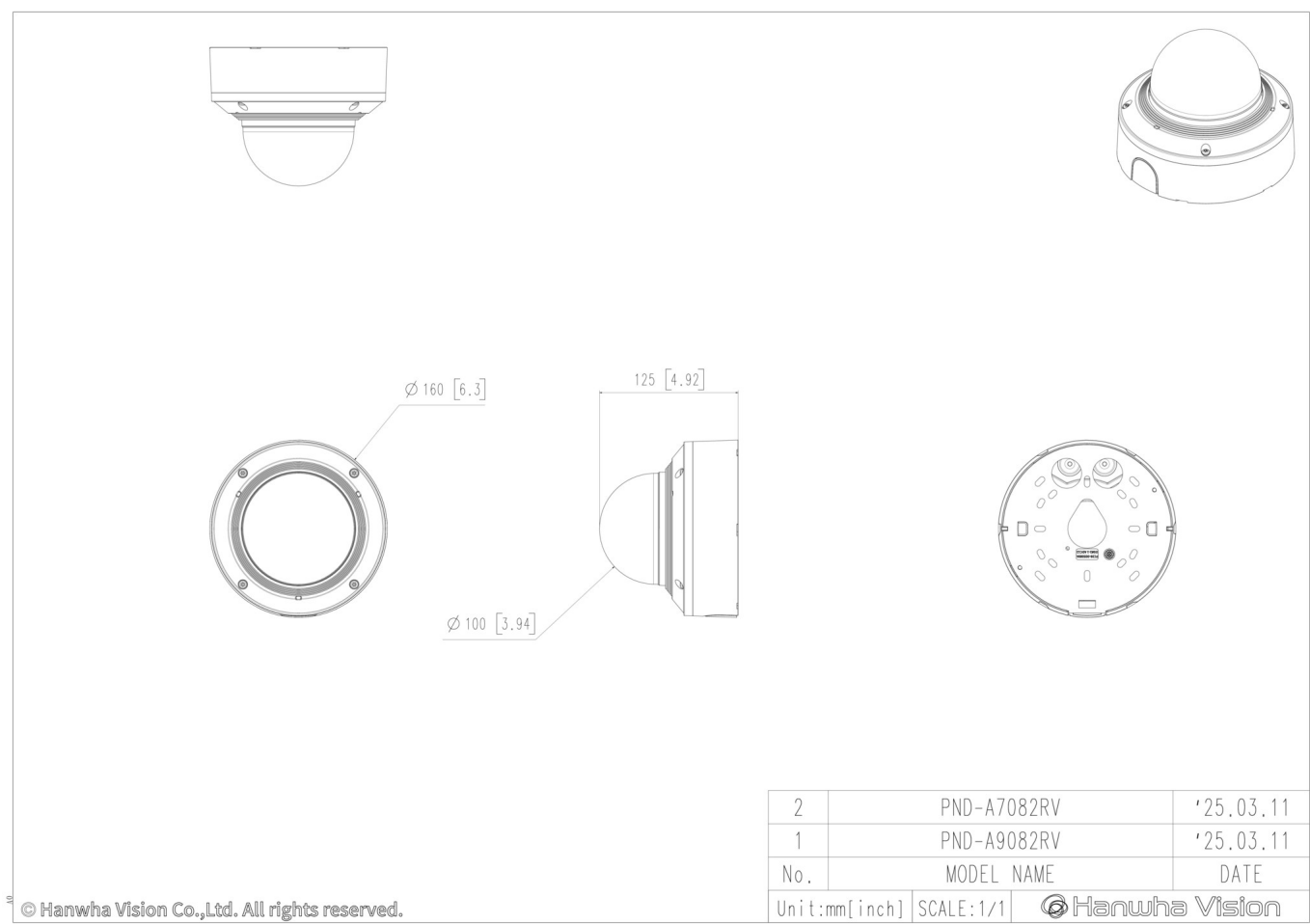
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Camera



CAD

Unit: mm [inch]



Compatible Devices



SBP-160HWM1



SBP-140CMB



SBP-180CMB



SBP-180CMS



SBP-150CMP



SBP-300CMP



SBP-900CMP



SBP-C15H



SBP-C15NP



SBP-C35H



SBP-C15P



SBP-150CMI



SBP-300CMI



SBP-300CMW1



SBP-900CMW



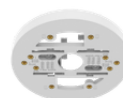
SBP-300CMTW



SBP-300CMTS



SHD-1372FPW



SBP-140CMT



SBP-160WMW1



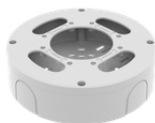
SBP-250WMW



SBP-400WMW



SBP-115PFA



SBV-180BW



SBV-180WW



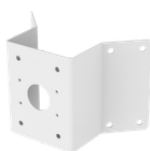
SBP-160TMW1



SBP-150PMW



SBD-180PMW



SBP-156KMW



SBP-156LMW1



SBP-150NBW



SPP-C7400



SPP-C45W



SBP-300WMW



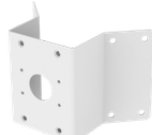
SBP-300WMW1



SBP-300BW1



SBP-300PMW2



SBP-300KMW1



SBP-300LMW



SBP-300NBW