



Network

Dome

# PND-A9081RV

4K AI IR Dome Camera



## Key Features

- Maximum 4K resolution
- 0.05Lux@F1.6 (Color), 0Lux (B/W, IR LED on)
- Day & Night(ICR), WDR(120dB), WiseNR II (Using AI engine), Prefer Shutter
- H.265, H.264, MJPEG codec, WiseStream II, WiseStreamIII (Using AI engine)
- Video Analytics based on AI
  - Object detection and classification(Person, Face, Vehicle, License Plate)
  - Face mask detection, Social distancing detection
  - Attribute, BestShot
- Modular structure for easy installation
- Requires camera firmware v1.41.03 or later to use Face Mask Detection
- System requirements
  - SSM v2.10.8 or later, Genetec plugin v1.0 or later, Milestone plugin v1.0.2 or later

## Compatible Devices



SBP-300LMW



SBP-300WMW1



SBP-300KMW



SBP-300BW



SBP-300PMW



Occupancy Monitoring Application



SBP-300WMW



SPB-IND85W



AI Plug-in



SBC-160B



SBP-300NBW



SBP-300CMW



SBP-167HMW

# PND-A9081RV

4K AI IR Dome Camera



## Specifications

Video		
Imaging Device	Size	1/1.8"
	Type	CMOS
Resolution	3840x2160, 3072x1728, 2688x1520, 2592x1944, 2560x1440, 2048x1536, 1920x1080, 1600x1200, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360	
Max. Framerate	H.265/H.264	30fps/25fps(60Hz/50Hz)
	MJPEG	30fps
Min. Illumination (Lux)	Color(1/30sec, 30IRE)	0.05
	BW(1/30sec, 30IRE)	0.005
Video Out	CVBS: 1.0 Vp-p / 75Ω composite for installation. USB: Micro USB Type B	
Lens		
Focal Length (mm)	4.5~10	
Zoom Ratio	Optical	2.2x
Max Aperture Ratio (F number)	Wide	1.6
	Tele	2.65
Angular Field of View	Horizontal	101.4°~45.5°
	Vertical	53.6°~25.5°
	Diagonal	120.7°~52.3°
Min. Object Distance	0.5m(1.64ft)	
Focus Control	Simple focus	
Lens Type	P iris(IR corrected)	
Pan / Tilt / Rotate		
Pan / Tilt / Rotate Range	Pan	0°~360°
	Tilt	-45°~85°
	Rotate	0°~355°
Operational		
Day & Night	Auto(ICR)	

## Operational

<b>Backlight Compensation</b>		BLC, WDR, SDR
<b>Digital Noise Reduction</b>		WiseNR II (Based on AI engine), SSNR V
<b>Digital Image Stabilization</b>		Support(built-in gyro sensor)
<b>Motion Detection</b>	Quantity	8ea
	Shape	8point Polygonal zones
<b>Privacy Masking</b>	Quantity	6ea
	Shape	Rectangular zones
	Color / Option	Gray, Black, White
<b>Gain Control</b>		Low, Middle, High
<b>White Balance</b>		ATW, AWC, Manual, Indoor, Outdoor
<b>LDC</b>		Support
<b>Electronic Shutter</b>	Mode	Minimum, Maximum, Anti flicker, Prefer shutter control(Based on AI engine)
	Speed Range	1/5~1/12,000sec
<b>Video Rotation</b>		Flip, Mirror, Hallway view(90°/270°)
<b>Alarm Interface</b>	In/Out	2 configurable I/O ports
	Others	12VDC output
<b>Alarm Triggers</b>		Analytics, Network disconnect, Alarm input, App event, Time schedule, MQTT subscription
<b>Alarm Events When Alarm Trigger Occurred</b>		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,Audio clip playback, MQTT: publication
<b>Audio In</b>		Selectable(mic in/line in), Built-in mic
<b>Audio Out</b>		Line out
<b>Light Type</b>		IR LED
<b>Light Viewable Length</b>	IR	WiseIR 30m(98.42ft)
<b>IR Wavelength</b>		850nm

## Analytics

<b>Classified Object Type</b>		Person, Face, Vehicle, License plate
<b>Attributes</b>	Person	Upper/Lower clothes color, Gender, Bag
	Vehicle	Type(car, bus, truck, motorcycle, bicycle), Color
	Face	Age, Gender, Face mask, Glasses
<b>Thumbnail</b>		BestShot
<b>Analytics Events</b>	Based on AI Engine	Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit), Face mask detection, Social distancing detection, Slip & fall detection
	Normal	Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear), WiseDetector for adding custom objects

## Analytics

<b>Business Intelligence</b>	Based on AI Engine	People counting, Queue management, Heatmap, Vehicle counting, Crowd counting
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## Network

<b>Ethernet</b>		Metal shielded RJ-45(10/100/1000BASE-T)
<b>Video Compression</b>		H.265/H.264: Main/High, MJPEG
<b>Audio Compression</b>		G.711 u-law /G.726 selectable,G.726(ADPCM) 8kHz,G.711 8kHz, G.726: 16kbps,24kbps,32kbps,40kbps, AAC-LC: 48kbps at 16kHz
<b>Smart Codec</b>		Manual, WiseStreamIII
<b>Bitrate Control</b>		H.265/H.264: CBR or VBR, MJPEG: VBR
<b>Streaming</b>	Unicast	Up to 6 users
	Multicast	Support
	Multiple Streaming	Up to 6 profiles
<b>Protocol</b>		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, SRTP(TCP, UDP Unicast), MQTT
<b>Application Programming Interface</b>	ONVIF	S, G, T, M
	Others	SUNAPI(HTTP API), Hanwha Vision Open Platform
<b>Direct Cloud Connection</b>		Support

## Security

<b>OS / Firmware Protect</b>		Encrypted firmware, Secure boot, Signed firmware
<b>User authentication</b>		Digest authentication, Prevent brute-force attack
<b>Network authentication</b>		IEEE 802.1X(EAP-TLS, EAP-LEAP, EAP-PEAP, MSCHAPv2)
<b>Secure Communication</b>		HTTPS, WSS(WebSocket Secure), SRTP
<b>Access Control</b>		IP-based access control
<b>Data Protect</b>		Encryption credentials, Encrypt compress for live recording file export
<b>Audit</b>		Access / System / Event Log management
<b>Device ID</b>		Device certificate(Hanwha Vision Root CA)
<b>Secure Storage</b>		SDcard partition encrypt(AES-256)

## General

<b>Memory</b>	RAM	4GB
	Flash	512MB
<b>Edge Storage</b>	Micro SD/SDHC/SDXC	Max. 256GB x 2slot(Total 512GB)

## Environmental & Electrical

<b>Operating Condition</b>	Temperature	-25°C~+50°C(-13°F~+122°F)
	Humidity	0~90% RH(non-condensing)

## Environmental & Electrical

Storage Condition	Temperature	-50°C~+60°C(-58°F~+140°F)
	Humidity	0~90% RH(non-condensing)
Input Voltage		PoE+(IEEE802.3at, Class4), 12VDC
Power Consumption	PoE	Max 20.00W, typical 16.00W
	12VDC	Max 17.70W, typical 14.00W

## Mechanical

Color	White
Material	Aluminum, Hard-coated dome
RAL Code	RAL9003
Product Dimensions	Ø160x125mm(6.30x4.92")
Product Weight	1.60Kg (3.53lb)
Compatible Conduit Hole	12.7mm(1/2")(M20)
Compatible Gang Box	Single, Double, 4" Octagon, Square

## DORI (EN62676-4 standard)

Detect (25PPM/ 8PPF)	Wide	62.2m(204.04ft)
	Tele	185.4m(608.31ft)
Observe (63PPM/ 19PPF)	Wide	24.9m(81.62ft)
	Tele	74.2m(243.32ft)
Recognize (125PPM/ 38PPF)	Wide	12.4m(40.81ft)
	Tele	37.1m(121.66ft)
Identify (250PPM/ 76PPF)	Wide	6.2m(20.40ft)
	Tele	18.5m(60.83ft)

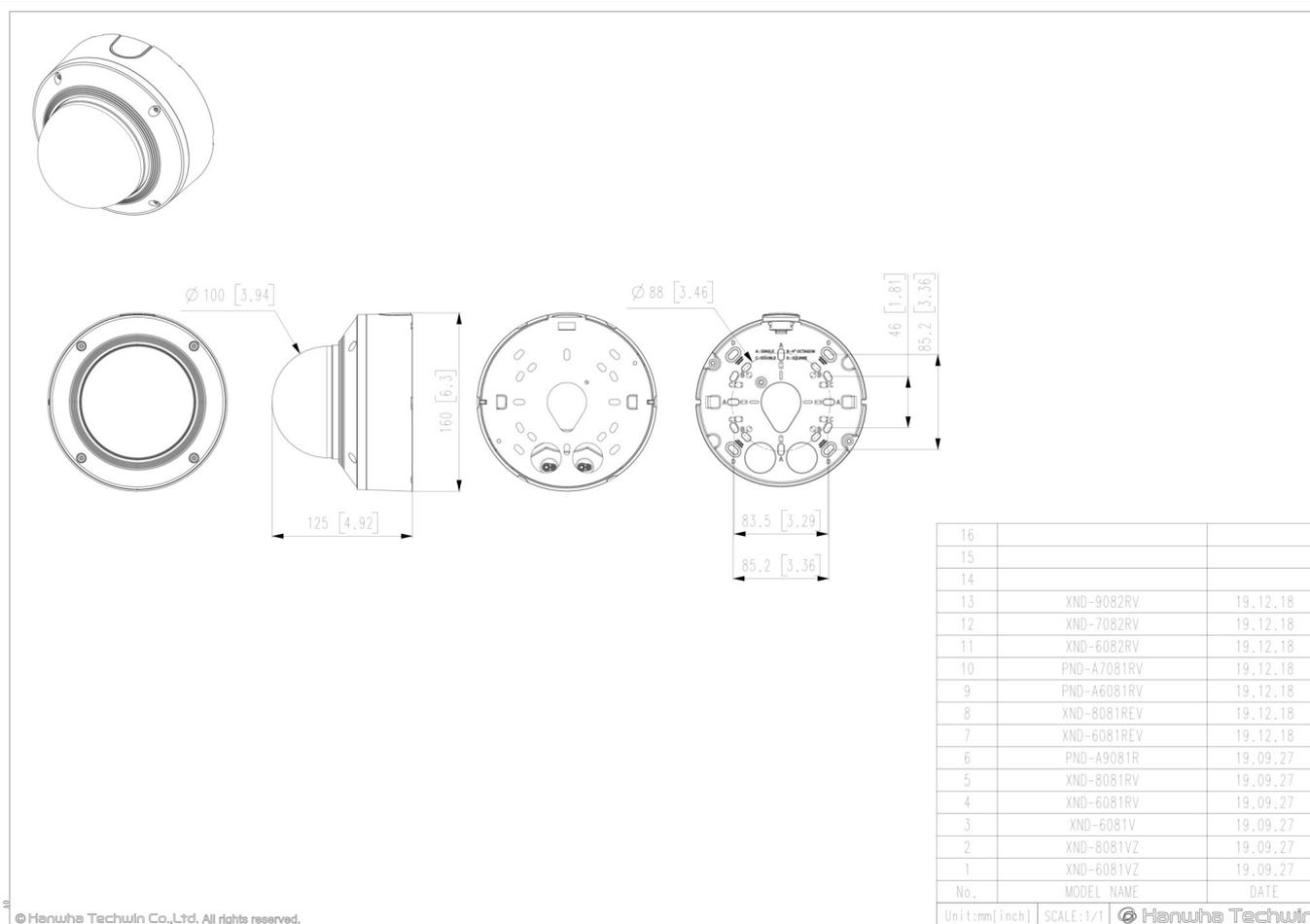
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## CAD

Unit: mm [inch]



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