



Network

Dome

# PND-A6081RV

2MP AI IR Dome Camera



## Key Features

- Maximum 2MP resolution, Up to 120fps
- 0.007Lux@F1.3, 1/30sec. (Color), 0Lux (B/W, IR LED on)
- Day & Night (ICR), WDR (120dB), WiseNR II (Using AI engine)
- H.265, H.264, MJPEG, 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
- TPM with FIPS 140-2 level2, Secure boot, Verify firmware forgery
- System requirements
  - SSM v2.10.8 or later, Genetec plugin v1.0 or later, Milestone plugin v1.0.2 or later, NVR model (XRN-6410DB4/B4, XRN-3210B4)
- Hard-coated dome bubble, IP52, IK10

## Compatible Devices



# PND-A6081RV

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## Specifications

### Video

Imaging Device	Size	1/2"
	Type	CMOS
Resolution	1920x1080, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360	
Max. Framerate	H.265/H.264	120fps/100fps(60Hz/50Hz)
	MJPEG	15fps
	Others	Max. 60/50fps(60Hz/50Hz) when AI on
Min. Illumination (Lux)	Color(1/30sec, 30IRE)	0.007
	BW(1/30sec, 30IRE)	0.0007
Video Out	CVBS: 1.0 Vp-p / 75Ω composite for installation, USB: Micro USB Type B	

### Lens

Focal Length (mm)	4.38~9.33	
Zoom Ratio	Optical	2.13x
Max Aperture Ratio (F number)	Wide	1.3
	Tele	2.15
Angular Field of View	Horizontal	103.1°~44.5°
	Vertical	54.2°~24.9°
	Diagonal	124°~51.1°
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)
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## Operational

<b>Backlight Compensation</b>		BLC, WDR, SDR
<b>Wide Dynamic Range (dB)</b>		120
<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>Digital PTZ</b>		Support
<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 40m(131.23ft)
<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

## Analytics

Analytics Events	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
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/High, MJPEG
Audio Compression		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
Smart Codec		Manual, WiseStreamIII
Bitrate Control		H.265/H.264: CBR or VBR, MJPEG: VBR
Streaming	Unicast	Up to 6 users
	Multicast	Support
	Multiple Streaming	Up to 6 profiles
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, SRTP(TCP, UDP Unicast), MQTT
Application Programming Interface	ONVIF	S, G, T, M
	Others	SUNAPI(HTTP API), Hanwha Vision Open Platform

## 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
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		TPM(Trusted platform module), SDcard partition encrypt(AES-256)
Security Certificate		TPM 2.0 with FIPS 140-2 level2

## General

Memory	RAM	4GB
	Flash	512MB
Edge Storage	Micro SD/SDHC/SDXC	Max. 512GB x 2slot(Total 1TB)

## Environmental & Electrical

Operating Condition	Temperature	-25°C~+50°C(-13°F~+122°F)
	Humidity	0~90% RH(non-condensing)
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 19.50W, typical 16.00W
	12VDC	Max 17.00W, typical 13.50W

## Mechanical

Color	White
Material	Aluminum, Hard-coated dome
RAL Code	RAL9003
Product Dimensions	ø160x125mm(6.30x4.92")
Product Weight	1600g(3.53lb)
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

## DORI (EN62676-4 standard)

Detect (25PPM/ 8PPF)	Wide	30.0m(98.43ft)
	Tele	95.0m(311.82ft)
Observe (63PPM/ 19PPF)	Wide	12.0m(39.37ft)
	Tele	38.0m(124.73ft)
Recognize (125PPM/ 38PPF)	Wide	6.0m(19.69ft)
	Tele	19.0m(62.36ft)
Identify (250PPM/ 76PPF)	Wide	3.0m(9.84ft)
	Tele	9.5m(31.18ft)

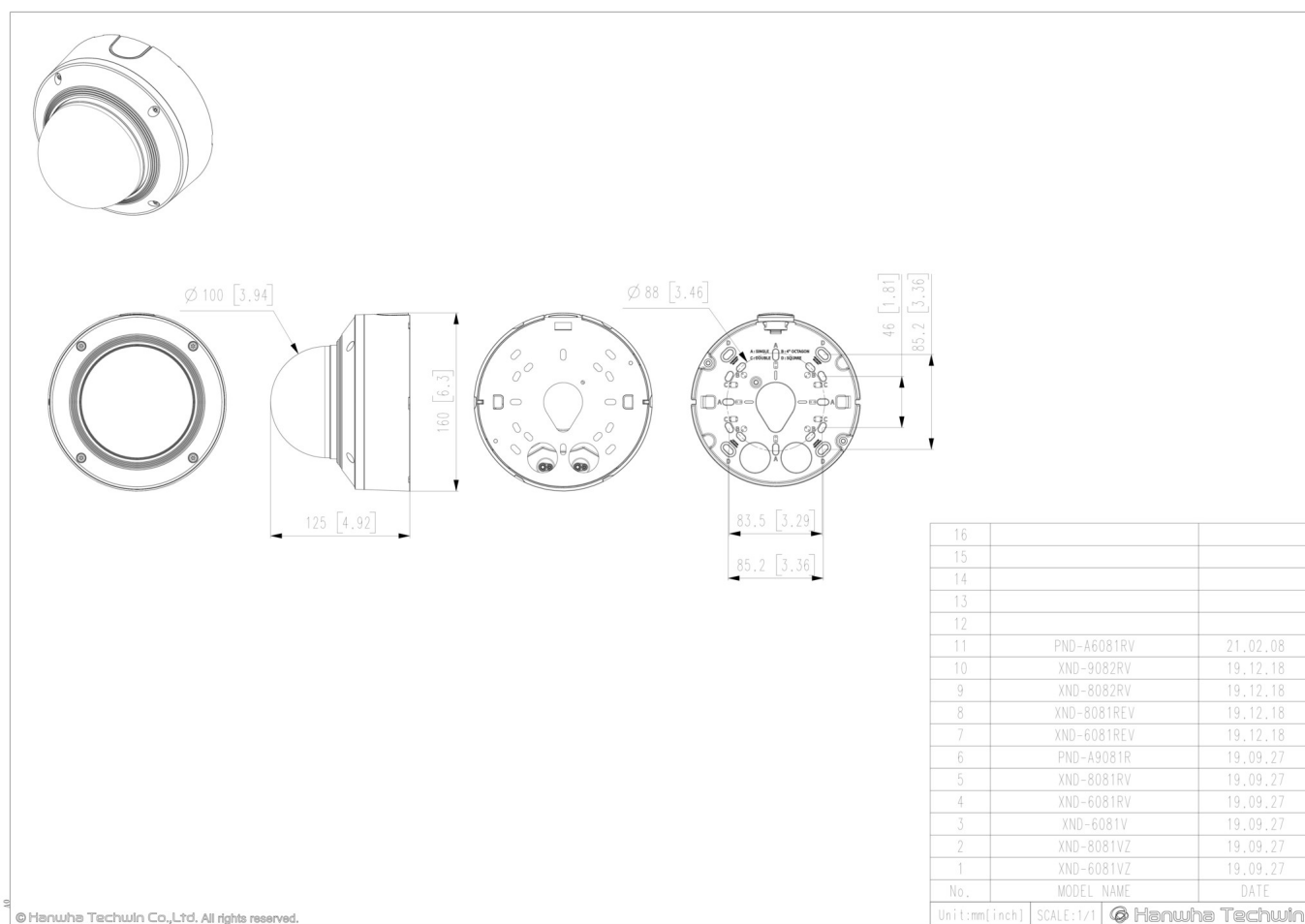
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## CAD

Unit: mm [inch]



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