

# PND-A9081RV

4K Network AI IR Dome Camera



## Key Features

- 4K resolution
- 0.05Lux@F1.6 (Color), 0Lux (B/W, IR LED on)
- Day & Night(ICR), WDR(120dB)
- H.265, H.264, MJPEG codec, WiseStream II
- Video Analytics based on AI
  - Object detection and classification(Person, Face, Vehicle, License Plate)
  - Face mask detection, Social distancing detection
  - Attribute, BestShot
- Compatible with Wisenet Retail Insight v2.0 for Business Intelligence
  - Age/gender based People counting
  - Heatmap, Queue management
- Modular structure for easy installation
- Requires camera firmware v1.41.03 or later to use Face Mask Detection
- System requirements
  - Wisenet WAVE 4.1, SSM v2.10.8 or later, Genetec plugin v1.0 or later, Milestone plugin v1.0.2 or later, NVR model (XRN-6410DB4, XRN-3210B4)

## Compatible Accessories (Optional)



SPB-IND85W



AI Plug-in



SBP-300WMW



SBC-160B



SBP-167HMW



SBP-300MMW1



SBP-300LMW



SBP-300NBW



SBP-300KMW



SBP-300PMW



SBP-300CMW



SBP-300BW

Video	
Imaging Device	1/1.8" CMOS
Resolution	3840x2160, 3072x1728, 2592x1944, 2688x1520, 2560x1440, 2048x1536, 1920x1080, 1600x1200, 1280x1024, 1280x960, 1280x720, 1024x768, 800 x 600, 800 x 448, 720 x 576, 720x480, 640x480, 640x360
Max. Framerate	H.265/H.264: Max. 30fps/25fps(60Hz/50Hz) MJPEG: Max. 30fps/25fps(60Hz/50Hz)
Min. Illumination	Color: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(F1.6, 1/30sec), 0Lux(IR LED on)
Video Out	CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation
Lens	
Focal Length (Zoom Ratio)	4.5~10mm(2.2x) motorized varifocal
Max. Aperture Ratio	F1.6(Wide)~F2.65(Tele)
Angular Field of View	H:101.4°(Wide)~45.5°(Tele) / V:53.6°(Wide)~25.5°(Tele) / D:120.7°(Wide)~52.3°(Tele)
Min. Object Distance	0.5m(1.64ft)
Focus Control	Simple focus
Lens Type	DC auto iris, P iris
Pan / Tilt / Rotate	
Pan / Tilt / Rotate Range	0~360 / -45~85 / 0~355
Operational	
Camera Title	Displayed up to 85 characters
Day & Night	Auto(ICR)
Backlight Compensation	BLC, WDR, SDR
Digital Noise Reduction	SSNR V
Digital Image Stabilization	Stabilization Support(built-in gyro sensor)
Motion Detection	8ea, polygonal zones
Privacy Masking	6ea, rectangle 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)
Video Rotation	Flip, Mirror, Hallway view(90/270)
Analytics	- Classified object type : Person/Face/Vehicle/License plate with attributes, BestShot per object - Analytics events based on AI engine : Object detection, Face mask detection, Directional detection, Digital auto tracking, Enter/Exit, Loitering, Virtual line, Social distancing detection - Analytics events : Defocus detection, Motion detection, Appear/Disappear, Tampering, Audio detection, Sound classification, Shock detection
Business Intelligence	People counting, Queue management, Heatmap based on AI engine
Alarm I/O	Input 1ea / Output 1ea / DC 12V Power(Max. 50mA) 1ea

<b>Alarm Triggers</b>	Analytics, Network disconnect, Alarm input
<b>Alarm Events</b>	File upload via FTP and e-mail Notification via e-mail SD/SDHC/SDXC or NAS recording at event triggers Alarm output Handover Audio playback
<b>Audio In</b>	Selectable(mic in/line in/built-in mic) Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm
<b>Audio Out</b>	Line out, Max.output level: 1Vrms
<b>IR Viewable Length</b>	30m(98.42ft)
<b>Network</b>	
<b>Ethernet</b>	Metal shielded RJ-45(10/100/1000 BASE-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(5ea area), WiseStream II
<b>Video Quality Adjustment</b>	H.264/H.265: Target bitrate level control MJPEG: Target bitrate level control
<b>Bitrate Control</b>	H.264/H.265: CBR or VBR MJPEG: VBR
<b>Streaming</b>	Unicast(6 users) / Multicast Multiple streaming(Up to 3 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)
<b>Security</b>	HTTPS(SSL) Login Authentication Digest Login Authentication IP Address Filtering User access log 802.1X Authentication(EAP-TLS, EAP-LEAP) Device Certificate(Hanwha Techwin Root CA) Secure boot
<b>Application Programming Interface</b>	ONVIF Profile S/G/T SUNAPI(HTTP API) Wisenet open platform
<b>General</b>	
<b>Webpage Language</b>	English, French, German, Spanish, Italian, Chinese, Korean, Russian, Japanese, Swedish, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek
<b>Web Viewer</b>	Supported OS: Windows 8.1, 10, Mac OS X 10.12, 10.13, 10.14 Recommended Browser: Google Chrome Supported Browser : MS Explore11, MS Edge, Mozilla Firefox(Window 64bit only), Apple Safari(Mac OS X only)
<b>Edge Storage</b>	Micro SD/SDHC/SDXC 2slots 512GB
<b>Memory</b>	4096MB RAM, 512MB Flash
<b>Environmental &amp; Electrical</b>	

Operating Temperature / Humidity	-25°C ~ +50°C (-13°F ~ +122°F) / Less than 90% RH
Storage Temperature / Humidity	-50°C ~ +60°C(-58°F ~ +140°F) / Less than 90% RH
Certification	IP52, IK10
Input Voltage	PoE+(IEEE802.3at), 12VDC
Power Consumption	PoE+: Max 20.00W, typical 16.00W 12VDC: Max 17.70W, typical 14.00W

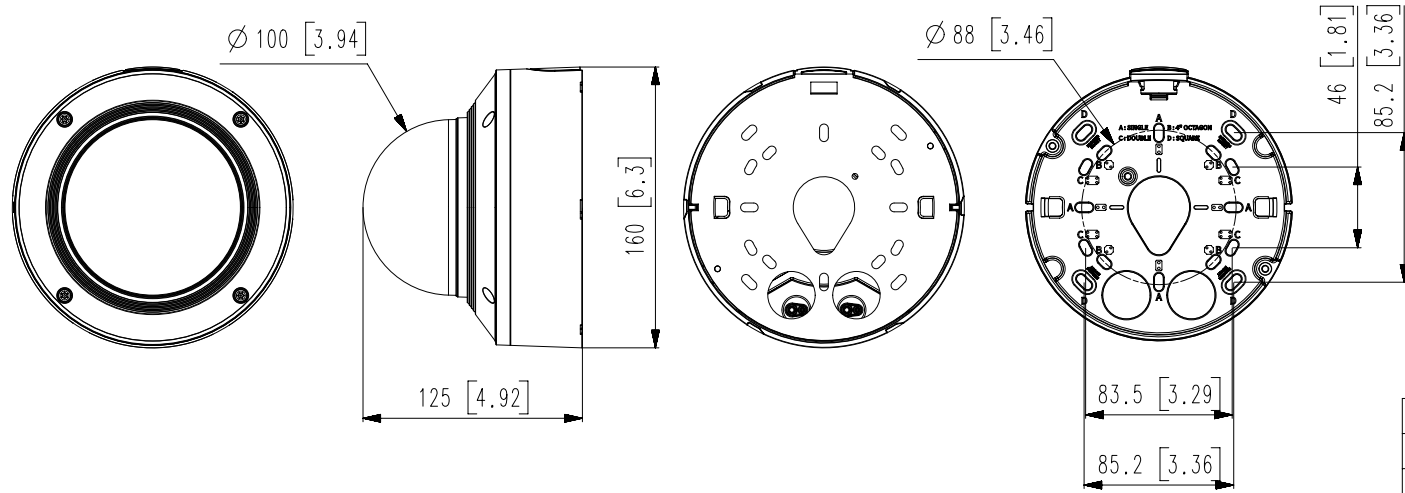
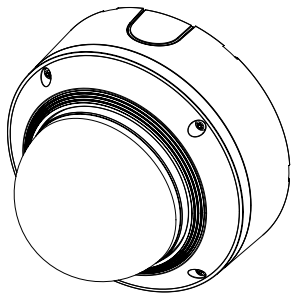
#### Mechanical

Color / Material	White / Aluminum
RAL Code	RAL9003
Product Dimensions / Weight	Ø160x125mm(6.30x4.92"), Weight : 1.60Kg (3.53lb)
Compatible Conduit hole / Gangbox	1/2"(M20) single, double, 4"octagon, 4"square
Hanging Mount (Dome)	SBP-167HMW
Skin Cover (Dome)	SBC-160B

#### DORI (EN62676-4 standard)

Detect (25PPM/ 8PPF)	Wide: 62.9m(206.34ft) / Tele: 183m(600.33ft)
Observe (63PPM/ 19PPF)	Wide: 25.1m(82.34ft) / Tele: 73.3m(240.46ft)
Recognize (125PPM/ 38PPF)	Wide: 12.6m(41.33ft) / Tele: 36.6m(120.07ft)
Identify (250PPM/ 76PPF)	Wide: 6.3m(20.67ft) / Tele: 18.3m(60.03ft)

- The latest product information / specification can be found at [hanwha-security.com](http://hanwha-security.com)
- Design and specifications are subject to change without notice.
- Wisenet is the proprietary brand of Hanwha Techwin, formerly known as Samsung Techwin.



16		
15		
14		
13	XND-9082RV	19.12.18
12	XND-7082RV	19.12.18
11	XND-6082RV	19.12.18
10	PND-A7081RV	19.12.18
9	PND-A6081RV	19.12.18
8	XND-8081REV	19.12.18
7	XND-6081REV	19.12.18
6	PND-A9081R	19.09.27
5	XND-8081RV	19.09.27
4	XND-6081RV	19.09.27
3	XND-6081V	19.09.27
2	XND-8081VZ	19.09.27
1	XND-6081VZ	19.09.27
No.	MODEL NAME	DATE
Unit:mm[inch]		SCALE:1/1
Hanwha Techwin		

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