

Network BOX

PNB-A9001LP

4K LPR/ANPR/MMCR Box Camera

Key Features

- Max. 4K resolution
- 0.03Lux@F1.2(Color), 0.003Lux@F1.2(B/W)
- Day & Night(ICR), WDR(120dB)
- H.265, H.264, MJPEG codec, WiseStream II
- Wisenet Road AI application (Pre-installed)
  - CNN (Convolutional Neural Network) AI with improved accuracy in challenging conditions
  - License/ Number Plate Recognition
  - Make/Model/Color Recognition
  - Black/White Notification
  - SmartSearch (LP/NP, Country, brand, model, color, date)

※ Specifications require Road AI App version v7.3532 or higher

Design and specifications are subject to change without notice. The latest product information / specification can be found at HanwhaVision.com
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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)	0.03
	BW(1/30sec, 30IRE)	0.003
Video Out		CVBS: 1.0 Vp-p / 75Ω composite for installation, USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.

Lens

Focus Control		Simple focus
Lens Type		DC auto iris, P iris(IR corrected), Manual, I-CS
Mount Type		C mount, CS mount

Operational

Day & Night		Auto(ICR)
Backlight Compensation		BLC, WDR, SSDR
Digital Noise Reduction		SSNR V
Digital Image Stabilization		Support(built-in gyro sensor)
Motion Detection	Quantity	8ea
Privacy Masking	Quantity	6ea
	Shape	Rectangular zones
	Color / Option	Gray, Black, White
Gain Control		Low, Middle, High
White Balance		ATW, AWC, Manual, Indoor, Outdoor
LDC		Support
Electronic Shutter	Mode	Minimum, Maximum, Anti flicker
	Speed Range	1/5~1/12,000sec

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Operational

Video Rotation		Flip, Mirror, Hallway view(90°/270°)
Serial Interface		RS-485(Samsung-T, Pelco-D/P, Panasonic, Bosch, AD, GE, Vicon, Honeywell)
Alarm Interface	In/Out	Input 1ea, Output 1ea
	Others	12VDC output
Alarm Triggers		Analytics, Network disconnect, Alarm input
Alarm Events When Alarm Trigger Occurred		File upload(image): e-mail/FTP, Notification: e-mail,Alarm output, Handover: PTZ preset,send message by HTTP/HTTPS/TCP,Audio clip playback,NAS recording at event triggers
Audio In		Selectable(mic in/line in), Built-in mic
Audio Out		Line out

Analytics

Analytics Events	Normal	Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection

Network

Ethernet		Metal shielded RJ-45(10/100/1000BASE-T)
Video Compression		H.265: Main, 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, WiseStream II
Bitrate Control		H.265/H.264: CBR or VBR, MJPEG: VBR
Streaming	Unicast	Up to 10 users
	Multicast	Support
	Multiple Streaming	Up to 5 profiles
Protocol		IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SMTP, ICMP, IGMPv2, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, SRTP(TCP, UDP Unicast)
Application Programming Interface	ONVIF	S, G, T
	Others	SUNAPI(HTTP API)

Security

OS / Firmware Protect		Secure boot
User authentication		Digest authentication
Network authentication		IEEE 802.1X(EAP-TLS, EAP-LEAP)
Secure Communication		HTTPS
Access Control		IP-based access control
Audit		Access / System / Event Log management
Device ID		Device certificate(Hanwha Vision Root CA)

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General

Memory	RAM	4GB
	Flash	512MB
Edge Storage	Micro SD/SDHC/SDXC	1slot (32GB card preinstalled) dedicated to strong LPR images from Wisenet Road AI app only (not for video recording)

Environmental & Electrical

Operating Condition	Temperature	-10°C~+55°C(+14°F~+131°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	PoE+: Max 16.50W, typical 12.50W
	12VDC	12VDC: Max 13.50W, typical 10.80W

Mechanical

Color	Black
Material	Aluminum
Product Dimensions	81x67x165mm(3.19x2.64x6.48")
Product Weight	0.88kg(1.94lb)

Wisenet Road AI LPR/ANPR/MMCR

App Type		CNN (Convolutional Neural Network) AI
LPR Usage Condition	NA	City Traffic
	EU	City Traffic
Speed Description by Region	NA	Regular Speed
	EU	Regular Speed
Lane Coverage_NA	1 Lane	3.6m/12ft wide (with built in IR)
	2 Lanes	8.1m/26ft wide (with built in IR)
Lane Coverage_EU	1 Lane	3.6m/12ft wide (with built in IR)
	2 Lanes	8.1m/26ft wide (with built in IR)
	3 Lanes	16.2m/53ft wide (with built in IR)
Plate Capture Resolution_NA	1 Lane	4K
	2 Lanes	4K
Plate Capture Resolution_EU	1 Lane	4K
	2 Lanes	4K
	3 Lanes	4K
Speed Limit_NA	1 Lane	Up to 140km/h (87mph)
	2 Lanes	Up to 120km/h (74mph)

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Wisenet Road AI LPR/ANPR/MMCR

Speed Limit_EU	1 Lane	Up to 140km/h (87mph)
	2 Lanes	Up to 140km/h (87mph)
	3 Lanes	Up to 70km/h (43mph)
Min. Forward Distance_NA	1 Lane	6m (19.7ft)
	2 Lanes	15m (49.2ft)
Min. Forward Distance_EU	1 Lane	6m (19.7ft)
	2 Lanes	9m (29.5ft)
	3 Lanes	15m (49.2ft)
Max. Forward Distance_NA	1 Lane	30m (98.4ft)
	2 Lanes	30m (98.4ft)
Max. Forward Distance_EU	1 Lane	30m (98.4ft)
	2 Lanes	30m (98.4ft)
	3 Lanes	30m (98.4ft)
Max. Horizontal Angle by Region	NA	30° for highway, 45° for traffic observation
	EU	30° for highway, 45° for traffic observation
Max. Vertical Angle by Region	NA	30°
	EU	30°
Vehicle Recognition		Make: 100+ makes Model: 4700+ models Color: 11 colors
Available Countries		Albania, Armenia, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Cyprus, Czechia, Denmark, Estonia, Finland, France, Greece, Germany, Hungary, Ireland, Iceland, Italy, Lithuania, Luxembourg, Latvia, Montenegro, North Macedonia, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovenia, Slovakia, Spain, Switzerland, Turkey, United Kingdom, United States of America, Canada, Russian Federation, Azerbaijan, Uzbekistan, Ukraine, Kyrgyzstan, Kazakhstan, Tajikistan, Georgia, Turkmenistan, Vietnam, Indonesia, Bahrain, Kuwait, Oman, Qatar, KSA, UAE, South Africa, Hongkong/Taiwan (LPR only), Australia/New Zealand (LPR only), Peru/Columbia (LPR only), Liechtenstein, Mexico, Moldova, Monaco, San Marino, Sweden, Croatia, Czech Republic, Gibraltar, Israel, Kosovo, Macedonia, Mongolia
Integration Options		JSON over HTTP, UTMC 1, UTMC 2, NVR, Wisenet WAVE
VMS Support		Wisenet WAVE, Wisenet SSM, Genetec Security Center, Milestone Xprotect, Genetec AutoVu

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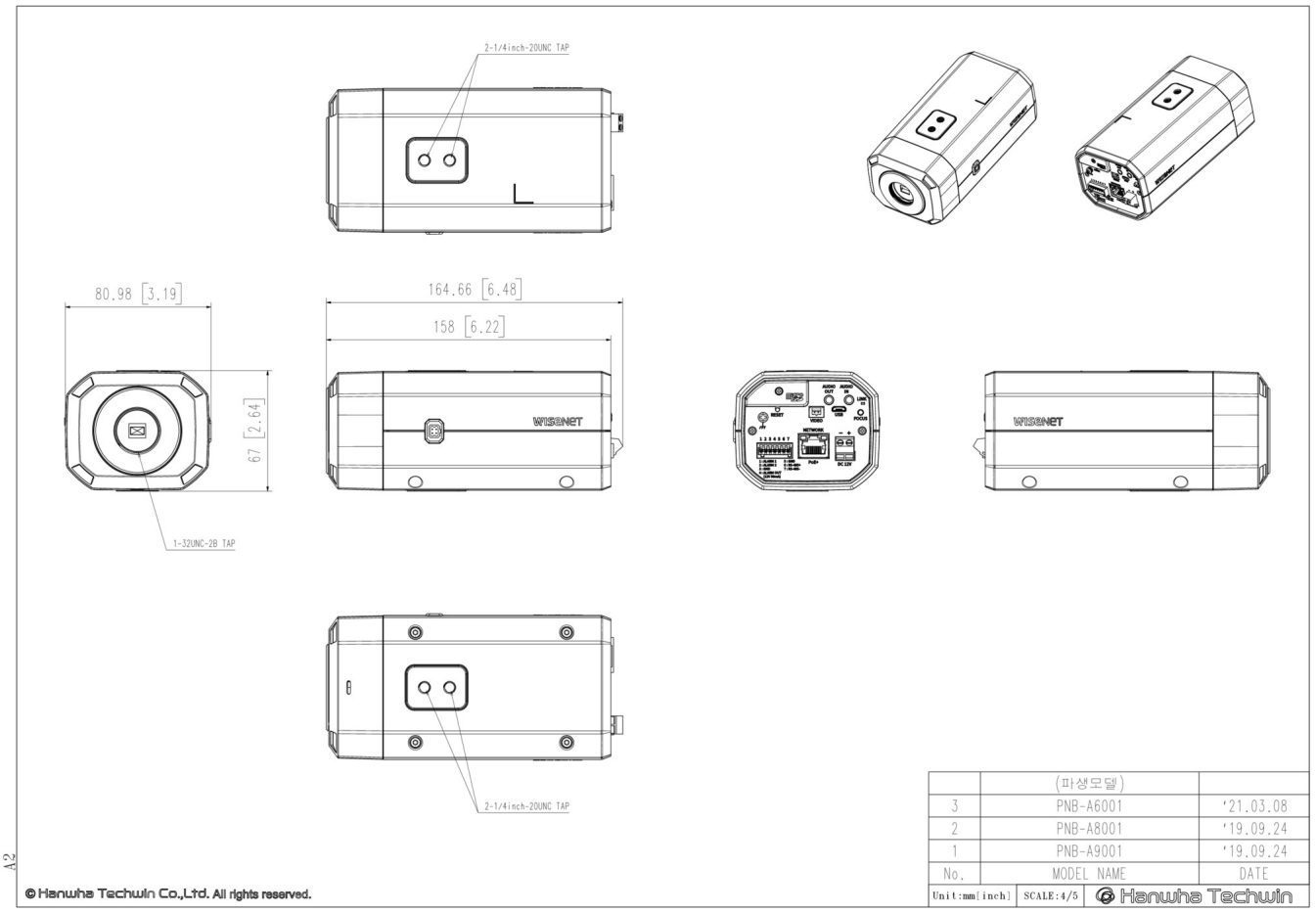
CAD

Unit: mm [inch]



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