Network

TNO-7180RLP

High-speed License Plate Capture Camera

Key Features

- 3MP, Color Global Shutter Sensor
- 6.8~120mm(18x) motorized varifocal
- H.265, H.264, MJPEG codec
- Maximum 60fps@3MP all resolutions (H.265, H.264, MJPEG)
- Edge Storage Pre-installed with 32GB Micro SD to support 10,000 LPR images
- WiseStreamII support
- HPoE, 12VDC
- IR Viewable Length 50m(164.04ft)
- IP66, IK10, NEMA 4X, NEMA TS 2(2.2.8, 2.2.9)
- Wisenet Road AI application (Pre-installed)
  - License/Number Plate Recognition
  - Make/Model/Color Recognition
  - Black/White list notification
  - Smart Search (LP/NP, Country, brand, model, color)

*POE power supply is not included, must be purchased separately if required

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Specifications

Video	TNO-7180RLP
Imaging Device	1/1.8" CMOS, Global shutter
Resolution	3M: 2048x1536, 1920x1080, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240 2M: 1920x1080, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240
Max. Framerate	3M: H.265/H.264: Max. 55fps/50fps(55Hz/50Hz), MJPEG: Max. 5fps(55Hz/50Hz) 2M: H.265/H.264: Max. 60fps/50fps(60Hz/50Hz), MJPEG: Max. 5fps (60Hz/50Hz)
Min. Illumination	Color 0.1 Lux (1/30sec, gain 48dB)
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)	6.8~120mm(18x) motorized varifocal
Max. Aperture Ratio	F1.6(Wide)~F4.13(Tele)
Angular Field of View	H: 54.5°(Wide)~3.4°(Tele), V: 42.3°(Wide)~2.5°(Tele)
Min. Object Distance	2m (6.5ft)
Focus Control	Simple focus, Focus save
Lens Type	DC auto iris

Operational	
Camera Title	Displayed up to 85 characters
Day & Night	Auto(ICR)
Backlight Compensation	BLC, SSDR
Digital Noise Reduction	SSNR V
Digital Image Stabilization	not support
Defog	Not Support
Motion Detection	8ea, polygonal zones
Privacy Masking	6ea, Rectangle zones - Color: Grey/Green/Red/Blue/Black/White
Gain Control	Support
White Balance	ATW / AWC / Manual / Indoor / Outdoor
LDC	Not Support
Electronic Shutter Speed	Minimum / Maximum / Anti flicker (1/25 ~ 1/12,000sec) / Global Shutter mode
Video Rotation	Flip, Mirror
Analytics	Analytics events - Motion detection, Tampering, Virtual line(Crossing/Direction), Virtual Area(Loitering/Intrusion/Enter/Exit, Appear/Disappear)

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Serial Interface	RS-485(Samsung-T, Pelco-D/P, Panasonic, Bosch, AD, GE, Vicon, Honeywell)
Alarm I/O	4 configurable I/O ports
Alarm Triggers	Analytics, Network disconnect, Alarm input
Alarm Events	When alarm trigger occurred - File upload(image): e-mail/FTP - Notification: e-mail - Recording: NAS recording at event triggers - Alarm output - Handover: PTZ preset, send message by HTTP/HTTPS/TCP
Audio In	Selectable(mic in/line in)
Audio Out	Line out
IR Viewable Length	WiseIR 50m (164ft)

Network	
Ethernet	RJ-45(10/100/1000BASE-T)
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG
Smart Codec	Manual(5ea area), WiseStream II
Bitrate Control	H.264/H.265: CBR or VBR MJPEG: VBR
Streaming	Unicast(20 users) / Multicast Multiple streaming (Up to 10 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, PIM-SM, UPnP, Bonjour, LLDP, SRTP
Security	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/OS/Storage, Verify firmware forgery TPM 2.0 with FIPS 140-2 level2
Application Programming Interface	ONVIF Profile S/G/T SUNAPI(HTTP API) Wisenet open platform v3.60

General	
Webpage Language	English, Korean, Chinese, French, Italian, Spanish, German, Japanese, Russian, Swedish,, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek
Web Viewer	Supported OS: Windows 7, 8.1, 10, Mac OS X 10.10, 10.11, 10.12 Recommended Browser: Google Chrome Supported Browser: MS Explore11, MS Edge, Mozilla Firefox(Window 64bit only), Apple Safari(Mac OS X only)
Edge Storage	Micro SD/SDHC/SDXC 1slot (32GB Card preinstalled)
Memory	2048MB RAM, 256MB Flash

Environmental & Electrical	
Operating Temperature / Humidity	Normal : -40°C~+55°(-40°F ~ +131°F) / Intermittent : -40°C~+60°C(-40°F ~ +140°F) Cold start : -40°C Maximum Temperature based on NEMA-TS 2(2.2.7) : +74°C(+165°F) Less than 95% RH(Non-condensing)
Storage Temperature / Humidity	-50°C~+60°C / Less than 95% RH(Non-dondensing)
Certification	IP66, IK10, NEMA 4X, NEMA TS 2(2.2.8, 2.2.9)
Input Voltage	HPoE(IEEE802.3bt type3, Class6), 12VDC ** HPoE injector not included
Power Consumption	PoE : Max 50W, Typical 27W 12VDC : Max 47.5W, Typical 25W

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Mechanical		
Color / Material	White/Aluminum	
RAL Code	RAL9003	
Product Dimensions / Weight	W186.9 x D293.7 x H259.3 (mm) / 4.8kg (10.5 lb)	

Wisenet Road AI LPR/ANPR/MMCR		
Solution	City Traffic Observation	Highways
Speed Description	Regular Speed	High Speed
Lane Coverage	Up to 2 lanes	Up to 2 lanes
Speed limit	Up to 120kmh (75mph) for 2 lanes	Up to 200kmh (125mph) for 2 lanes
Min. Forward Distance	16m (52ft)	27m (90ft)
Max. Forward Distance	46m (150ft)	46m (150ft)
Max. Horizontal Angle	25°	15°
Max. Vertical Angle	25°	15°
Horizontal Offset	Up to 7m (24ft)	Up to 4m (12ft)
Camera Height	Up to 7m (24ft)	Up to 7m (24ft)
Vehicle Recognition	Make : 70+ Model : 600+ Color : 10	Make : 70+ Model : 600+ Color : 10
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, Mexico	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, Mexico

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