



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)
- \bullet 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
- $\hbox{-} Smart Search (LP/NP, Country, brand, model, color)\\$

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



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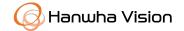




Specifications

Video	TNO-7180RLP	
Imaging Device	1/1.8" 3MP 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	
Focus Control	Simple focus, Focus save	
Lens Type	DC auto iris	
Mount Type	Board in type	
Operational		
Camera Title	Displayed up to 85 characters	
Day & Night	Auto(ICR)	
Backlight Compensation	BLC, SSDR	
Digital Noise Reduction	SSNRV	
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 \sim 1/12,000sec) / Double shutter mode	
Video Rotation	Flip, Mirror	
Analytics	Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line	
Serial Interface	RS-485/422(Samsung-T, Pelco-D/P, Panasonic, Bosch, AD, GE, Vicon, Honeywell)	

Design and specifications are subject to change without notice. The latest product information / specification can be found at HanwhaVision.com Hanwha Vision is formerly known as Hanwha Techwin.



Alarm Triggers	Analytics, Network disconnect, Alarm input	
Alarm Events	File upload via FTP and e-mail Notification via e-mail NAS recording at event triggers Alarm output	
Audio In	Selectable(mic in/line in) Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm	
Audio Out	Line out, Max.output level: 1Vrms	
IR Viewable Length	50m	
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) Secue boot TPM	
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	
	Supported OS: Windows 7, 8.1, 10, Mac OS X 10.10, 10.11, 10.12	
Web Viewer	Recommended Browser: Google Chrome Supported Browser: MS Explore11, MS Edge, Mozilla Firefox(Window 64bit only), Apple Safari(Mac OS X only)	
Web Viewer Edge Storage	Recommended Browser: Google Chrome Supported Browser: MS Explore11, MS Edge, Mozilla Firefox(Window 64bit only), Apple Safari(Mac OS	
	Recommended Browser: Google Chrome Supported Browser: MS Explore11, MS Edge, Mozilla Firefox(Window 64bit only), Apple Safari(Mac OS X only)	
Edge Storage	Recommended Browser: Google Chrome Supported Browser: MS Explore11, MS Edge, Mozilla Firefox(Window 64bit only), Apple Safari(Mac OS X only) Micro SD/SDHC/SDXC 1slot (32GB Card preinstalled)	
Edge Storage Memory	Recommended Browser: Google Chrome Supported Browser: MS Explore11, MS Edge, Mozilla Firefox(Window 64bit only), Apple Safari(Mac OS X only) Micro SD/SDHC/SDXC 1slot (32GB Card preinstalled)	
Edge Storage Memory Environmental & Electrical	Recommended Browser: Google Chrome Supported Browser: MS Explore11, MS Edge, Mozilla Firefox(Window 64bit only), Apple Safari(Mac OS X only) Micro SD/SDHC/SDXC 1slot (32GB Card preinstalled) 2048MB RAM, 256MB Flash 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)	
Edge Storage Memory Environmental & Electrical Operating Temperature / Humidity	Recommended Browser: Google Chrome Supported Browser: MS Explore11, MS Edge, Mozilla Firefox(Window 64bit only), Apple Safari(Mac OS X only) Micro SD/SDHC/SDXC 1slot (32GB Card preinstalled) 2048MB RAM, 256MB Flash 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)	
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Edge Storage Memory Environmental & Electrical Operating Temperature / Humidity Storage Temperature / Humidity Certification	Recommended Browser: Google Chrome Supported Browser: MS Explore11, MS Edge, Mozilla Firefox(Window 64bit only), Apple Safari(Mac OS X only) Micro SD/SDHC/SDXC 1slot (32GB Card preinstalled) 2048MB RAM, 256MB Flash 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) -50°C~+60°C / Less than 95% RH(Non-dondensing) IP66, IK10, NEMA 4X, NEMA TS 2(2.2.8, 2.2.9)	
Edge Storage Memory Environmental & Electrical Operating Temperature / Humidity Storage Temperature / Humidity Certification Input Voltage	Recommended Browser: Google Chrome Supported Browser: MS Explore11, MS Edge, Mozilla Firefox(Window 64bit only), Apple Safari(Mac OS X only) Micro SD/SDHC/SDXC 1slot (32GB Card preinstalled) 2048MB RAM, 256MB Flash 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) -50°C~+60°C / Less than 95% RH(Non-dondensing) IP66, IK10, NEMA 4X, NEMA TS 2(2.2.8, 2.2.9) HP0E or 12VDC PoE: Max 50W, Typical 27W	
Edge Storage Memory Environmental & Electrical Operating Temperature / Humidity Storage Temperature / Humidity Certification Input Voltage Power Consumption	Recommended Browser: Google Chrome Supported Browser: MS Explore11, MS Edge, Mozilla Firefox(Window 64bit only), Apple Safari(Mac OS X only) Micro SD/SDHC/SDXC 1slot (32GB Card preinstalled) 2048MB RAM, 256MB Flash 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) -50°C~+60°C / Less than 95% RH(Non-dondensing) IP66, IK10, NEMA 4X, NEMA TS 2(2.2.8, 2.2.9) HP0E or 12VDC PoE: Max 50W, Typical 27W	
Edge Storage Memory Environmental & Electrical Operating Temperature / Humidity Storage Temperature / Humidity Certification Input Voltage Power Consumption Mechanical	Recommended Browser: Google Chrome Supported Browser: MS Explore11, MS Edge, Mozilla Firefox(Window 64bit only), Apple Safari(Mac OS X only) Micro SD/SDHC/SDXC 1slot (32GB Card preinstalled) 2048MB RAM, 256MB Flash 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) -50°C~+60°C / Less than 95% RH(Non-dondensing) IP66, IK10, NEMA 4X, NEMA TS 2(2.2.8, 2.2.9) HP0E or 12VDC PoE: Max 50W, Typical 27W 12VDC: Max 47.5W, Typical 25W	

Wisenet Road AI LPR/ANPR/MMCR

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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