



Network

## XNO-6123R/RW

2MP IR Bullet Camera with  
RoadWatch ANPR



### Key Features

- Maximum 2MP resolution
- 5.2~62.4mm(12x) zoom(digital 32x, total 384x zoom)
- Maximum IR viewable length: WiseIR 90m(295.28ft)
- Colour: 0.03 Lux (F1.6, 1/30 sec, 30IRE), 0 Lux (IR LED on)
- Day & Night (ICR), extremeWDR (150 dB)
- DIS with built-in Gyro sensor
- Certification: IP66/IP67, NEMA4X, IK10
- RoadWatch Application (Pre-installed and licensed)
  - Edge based ANPR
  - List Management, Smart Search, Statistics, Barrier Trigger
  - ANPR Setup Wizard
  - Integration with WAVE VMS, JSON & UTMC protocols

# XNO-6123R/RW

2MP IR Bullet Camera with RoadWatch ANPR



## Specifications

Video	
Imaging Device	1/2.8" progressive CMOS
Resolution	1920x1080, 1600x1200, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240
Max. Framerate	H.265/H.264: Max. 120fps/100fps(60Hz/50Hz)(WDR off), Max. 60fps/50fps(60Hz/50Hz)(WDR on), MJPEG: Max. 30fps
Min. Illumination	Colour: 0.03Lux(F1.6, 1/30sec, 30IRE) B/W: 0.003Lux(F1.6, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps  Colour: 0.06Lux(F1.6, 1/60sec, 30IRE) B/W: 0.006Lux(F1.6, 1/60sec, 30IRE), 0Lux(IR LED on), 60/50fps  Colour: 0.12Lux(F1.6, 1/120sec, 30IRE) B/W: 0.012Lux(F1.6, 1/120sec, 30IRE), 0Lux(IR LED on), 120/100fps
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)	5.2~62.4mm(12x) zoom(digital 32x, total 384x zoom)
Max. Aperture Ratio	F1.6(Wide)~F3.0(Tele)
Angular Field of View	H: 55°(Wide)~5°(Tele) / V: 33°(Wide)~3°(Tele) / D: 62°(Wide)~6°(Tele)
Min. Object Distance	1.5m(4.92ft)
Focus Control	Oneshot AF, Focus save
Lens Type	DC auto iris
Pan / Tilt / Rotate	
Sequence	Preset(300ea)
Operational	
Camera Title	Displayed up to 85 characters
Day & Night	Auto(ICR)
Backlight Compensation	BLC, HLC, WDR, SSSDR
Wide Dynamic Range	extremeWDR(150dB)
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V
Digital Image Stabilization	Support(built-in gyro sensor)
Defog	Support
Motion Detection	8ea, 8point Polygonal zones
Privacy Masking	32ea, 4point Quadrangle zones - Colour: Gray/Green/Red/Blue/Black/White - Mosaic
Gain Control	Off / Max Gain / Manual
White Balance	ATW / NarrowATW / AWC / Manual / Indoor / Outdoor
LDC	Support(Fill/stretch mode)
Electronic Shutter Speed	Minimum / Maximum / Anti flicker(2~1/12,000sec) prefer shutter control(Based on AI engine)
Video Rotation	Flip, Mirror, Hallway view(90°/270°)
Alarm I/O	2 configurable I/O ports, DC 12V output(Max. 50mA)
Alarm Triggers	Network disconnect, Alarm input, App event, Time schedule, MQTT subscription

Alarm Events	When alarm trigger occurred - 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
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	WiselR 90m(295.28ft)
<b>Network</b>	
Ethernet	Metal shielded RJ-45(10/100/1000BASE-T)
Video Compression	H.265/H.264: Main/Baseline/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(5ea area), WiseStream II , WiseStreamIII(Based on AI engine)
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, UPnP, Bonjour, LLDP, CDP, SRTP(TCP, UDP Unicast), MQTT
Security	TPM 2.0(FIPS 140-2 level 2) HTTPS(SSL) Login Authentication Digest Login Authentication IP Address Filtering User access log 802.1X Authentication(EAP-TLS, EAP-LEAP, EAP-PEAP MSCHAPv2) Device Certificate(Hanwha Techwin Root CA, pre-installed) Secure by default certificate Secure OS/Boot/Storage, Verify firmware forgery
Application Programming Interface	ONVIF Profile S/G/T/M (Excludes RoadWatch ANPR application), SUNAPI(HTTP API), Wisenet open platform
<b>General</b>	
Webpage Language	English, Korean, Chinese, French, Italian, Spanish, German, Japanese, Russian, Portuguese, Czech, Polish, Turkish, Dutch, Greek, Hungarian
Edge Storage	Pre-installed SD Card (Data storage for RoadWatch application)
Memory	2GB RAM, 512MB Flash
<b>Environmental &amp; Electrical</b>	
Operating Temperature / Humidity	-40°C~+60°C(-40°F~+140°F) * Start up should be done at above -30°C 0~95% RH(Non-condensing) Humidity control /w AIR vent
Storage Temperature / Humidity	-50°C~+60°C(-58°F~+140°F) / 0~95% RH(Non-condensing)
Certification	IP66/67, IK10, NEMA4X, NEMA-TS 2(2.2.8, 2.2.9)
Input Voltage	PoE+(IEEE802.3at type2, Class4), 12VDC
Power Consumption	PoE+: Max 19.5W, typical 15.5W 12VDC: Max 16.5W, typical 13.1W Power redundancy failover

Mechanical	
Colour / Material	White / Aluminum Hard-coated window
RAL Code	RAL9003
Product Dimensions / Weight	ø93.4x298.4mm(ø3.68x11.75") / 2300g(5.07 lb)
Compatible Conduit hole / Gangbox	19.1mm(3/4")(M25) single, double, 4" octagon, 4" square
Backbox	included
Certifications & Standards	
EMC	FCC 47 CFR 15 Subpart B Class A ICES-3(A)/NMB-3(A) CE/UKCA - EN 55032 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/EN 62471
Environment	IEC/EN 63000 IEC/EN 60529 IP66/IP67, IEC/EN 62262 IK10 NEMA TS 2-2013(2.2.8, 2.2.9) NEMA 250 type 4X
DORI (EN62676-4 standard)	
Detect (25PPM/ 8PPF)	Wide: 73.8m(242.01ft) / Tele: 879.5m(2885.51ft)
Observe (63PPM/ 19PPF)	Wide: 29.5m(96.81ft) / Tele: 351.8m(1154.21ft)
Recognize (125PPM/ 38PPF)	Wide: 14.8m(48.40ft) / Tele: 175.9m(577.10ft)
Identify (250PPM/ 76PPF)	Wide: 7.4m(24.20ft) / Tele: 88.0m(288.55ft)
RoadWatch ANPR	
ANPR Usage conditions	Urban traffic
Speed Description	Regular speed
Lane coverage	1 lane (3,6m/12ft wide)
Speed Limit	up to 90km/h (55mph)
Min/Max Forward Distance	17m (55ft) / 32m (105ft)
Max Horizontal / Vertical Angle	30°
Horizontal Offset / Camera Height	up to 9.8m (32ft)
Available Countries	Albania, Armenia, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Cyprus, Czechia, Denmark, Estonia, Finland, France, Greece, Georgia, Germany, Hungary, Ireland, Iceland, Italy, Lithuania, Luxembourg, Latvia, Montenegro, North Macedonia, Malta, Moldova, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovenia, Slovakia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom, Australia, New Zealand, South Africa, Azerbaijan, Uzbekistan, Kyrgyzstan, Kazakhstan, Tajikistan, Turkmenistan

## Installation Requirements

ANPR (Automatic Number Plate Recognition) Technology running on the camera will provide you with the best results when following the recommended installation requirements below.

### Vertical Angle

30 degrees Maximum Vertical Angle

Note: Minimum and Maximum Forward Distance depend on lens zoom. Refer to each camera model specifications and manual.

Fig. 1  
Camera shown from side

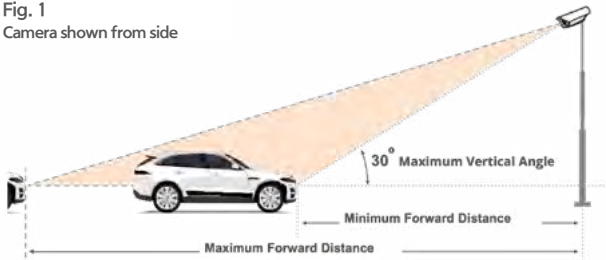
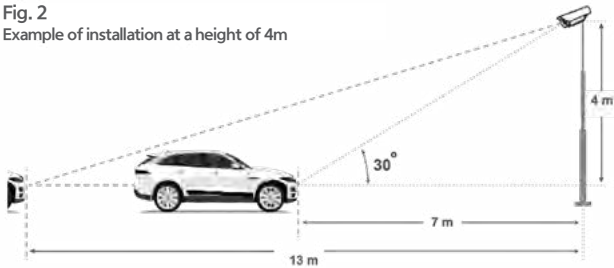


Fig. 2  
Example of installation at a height of 4m



### Horizontal Angle:

30 degrees Maximum Horizontal Angle

Note: Minimum and Maximum Forward Distance depend on lens zoom. Refer to each camera model specifications and manual.

Fig. 3  
Camera shown from top

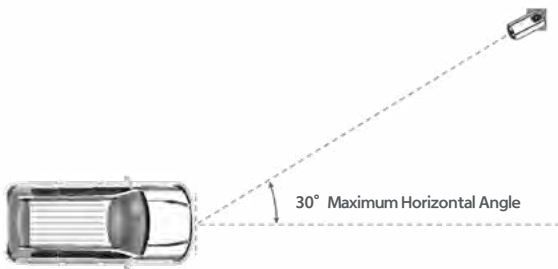
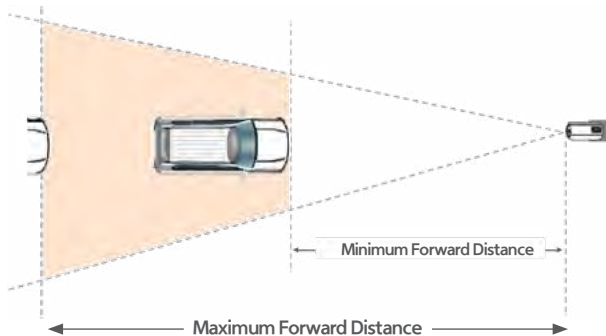


Fig. 4



### Angle:

For the best results, check the angle of your plate compared to the horizontal alignment and rotate the camera to achieve less than 5° as shown.



### Zone:

Setting recognition zone (see orange frame below) in lower half of camera view is recommended for best recognition.



### Plate Size:

All the license plates that meet the on-frame size criteria below will be recognized in the selected area. 130-300 pixels for regular EU plates.