VIVOTEK

S series

IP9165-LPR Kit (Street)
License Plate Recognition Solution

Embedded LPR Software • Dual Lane • 60MPH (90km/hr) • DIS • Recognition Distance 35M • Anti-Glare • Remote Back Focus • IP68 • IK10

- Capture Vehicle Speed up to 60MPH (90km/hr)
- Embedded LPR Software for Urban/Road Applications
- Supports License Plates from over 70+ Countries
- Taking Snapshots from Another Related Overview Camera as Evidence Images
- Supreme Anti-Glare Capability
- One Camera Covers Dual Lane
- Certified by Numerous LPR Software Manufacturers around the World
- Vandal-Proof IK10-rated and Weather-Proof IP68-rated Housing

i-CS | TREND MICRO

Overview

VIVOTEK's IP9165-LPR Kit (Street) is a standalone LPR camera system featuring a built-in license plate recognition system, supporting white-lists and black-lists for license plate verification. It also offers various APIs for integration with 3rd party systems such as traffic management, toll collection, and weighbridge systems. The IP9165-LPR Kit (Street) is an ideal option for city surveillance, residential communities, and expressway toll-management applications.

With the adoption of snap-in corresponding IR LEDs and a built-in head-light filter, the IP9165-LPR Kit (Street) delivers the best results for license plate recognition in both the highest levels of glare and in the darkest hours of the night. Empowered with VIVOTEK LPR Scene Mode, which provides different exposure levels to avoid overexposure in some lighting conditions, the Kit can capture clear plate images from the vehicles moving at speeds of up to 60MPH (90km/hr). Value-added features such as DIS (Digital Image Stabilization) and i-CS lens (intelligent-CS) can be easily installed and adjusted to provide the perfect LPR solution.

Additionally, in order to provide precise, reliable and authoritative data for use as evidence. The IP9165-LPR Kit can simultaneously combine the LPR result and a snapshot of the linked camera. This feature is beneficial for law enforcement agencies, such as the police and government.

Functions

Embedded LPR Software for Urban/Road Applications

The IP9165-LPR Kit (Street) is a standalone LPR camera system that can capture clear plate images from vehicles moving at speeds of up to 60MPH (90km/hr) for LPR readings. It is an ideal option for city surveillance, residential communities and expressway toll-management applications.

Functions

Taking Snapshots from Another Related Overview Camera as Evidence Images

In addition to the license plate recognition function, the new evidence function can be combined with a snapshot of the connecting camera through the RTSP stream, providing the road overview and LPR result images simultaneously to reinforce the strength of evidence.
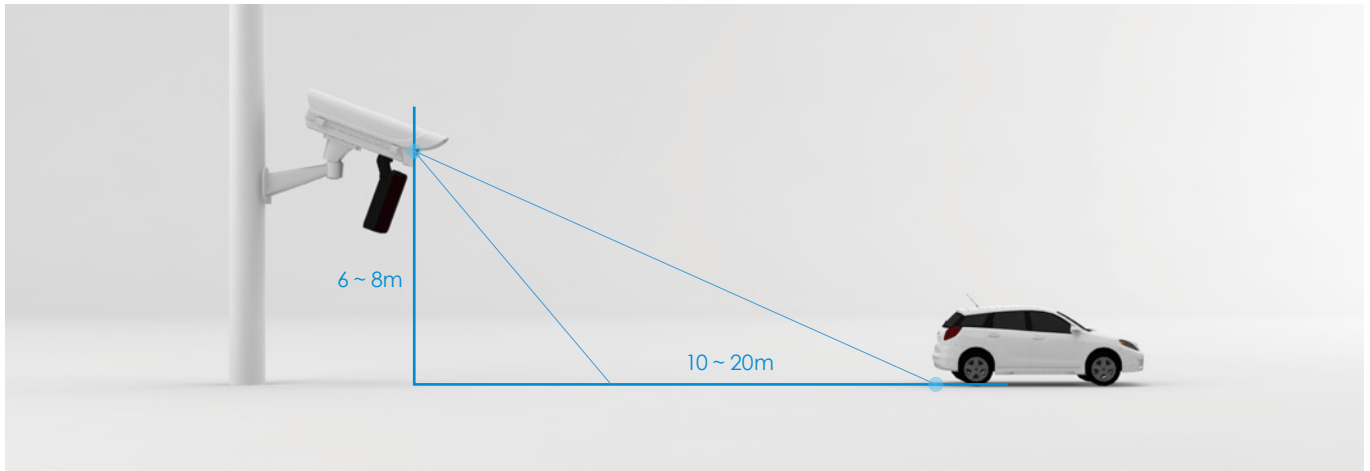

Day Time
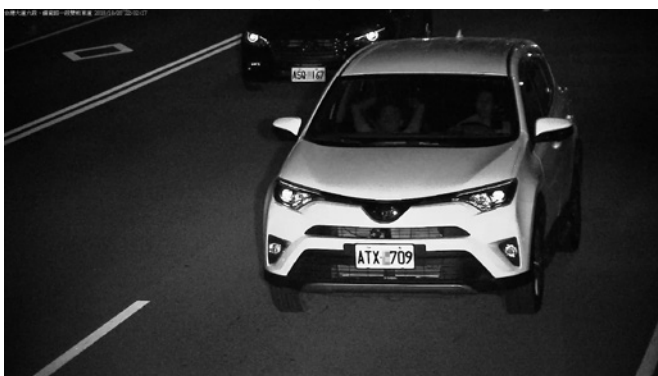
Night Time

One Camera Covers Dual Lane

The high image quality of the IP9165-LPR Kit (Street) ensures wide coverage of two lanes with one Camera, whether used for expressway toll management or urban road surveillance. With a single IP9165-LPR Kit (Street) covering dual lane, the total cost of traffic monitoring will be reduced.

Suggested Installation

- Installation height: 6~8 M • Distance: 10~20m • Lane: 2 Lanes

Technical Specifications

Model	IP9165-LPR Kit (Street, 9-50mm, i-CS, Snap-in IR) IP9165-LPR Kit (Street, 12-40mm, Snap-in IR)
Max. Speed	60MPH (90km/hr)
IR Threshold	IR on: 300 Lux IR off: 600 Lux RS485 configurable
Shutter Time	1/1000 to 1/10,000 sec.
Max. Shutter Time	1/5 to 1/32,000 sec.
Illuminators	48W, 850nm, 10° ~ 30° remote control beam angle Snap-in IR illuminator
Capture Range	Up to 35 meters
Captured Lanes	Dual Lane *Suggest width per lane: 3.5~4M
Power Input	AC 24V or DC 24V
Power Consumption	Max. 78 W (IR on) Max. 30 W (IR off) Suggested Power: DC 24V or AC 24V / 3.5A
Weight	6.2 kg
Housing	Weather-proof IP68-rated housing Vandal-proof IK10-rated housing
Operating Temperature	Starting Temperature: 0°C ~ 60°C (32°F ~ 140°F) Working Temperature: -20°C ~ 60°C (-4°F ~ 140°F) -40°C ~ 60°C (-40°F ~ 140°F), with optional cold start heater
Humidity	90%

Video

Technical Specifications

Compression	H.265, H.264, MJPEG
Maximum Streams	4 simultaneous streams
Image Settings	General settings: video title and time stamp overlay, video orientation (flip, mirror, rotation), day/ night settings; IR control: illuminators, spectrum mode, anti-overexposure; Image settings: white balance, image adjustment (brightness, contrast, saturation, sharpness, gamma curve), defog, 3DNR, Lens distortion correction, DIS, scene mode (LPC-parking, LPC-street); Exposure: BLC, HLC, exposure control (exposure level, iris adjustment, exposure time, gain control, iris mode), AE speed adjustment, WDR; Focus: zoom, focus; Privacy mask; Scheduled profile settings

Network

Users	Live viewing for up to 10 clients
Protocols	Camera: 802.1X, ARP, CIFS/SMB, CoS, DDNS, DHCP, DNS, FTP, HTTP, HTTPS, ICMP, IGMP, IPv4, IPv6, NTP, PPPoE, QoS, RTSP/RTP/RTCP, SMTP, SNMP, SSL, TCP/IP, TLS, UDP, UPnP Urban ANPR: Socket client, Socket server, ONVIF event, FTP/FTPS, HTTP/HTTPS
Interface	10 Base-T/100 Base-TX/1000 Base-T Ethernet (RJ-45) *It is highly recommended to use standard CAT5e & CAT6 cables which are compliant with the 3P/ETL standard.
ONVIF	Profile G, S supported, specification available at www.onvif.org

Solution Integration

Video Motion Detection	Five-window video motion detection
Embedded Software	VIVOTEK ANPR
VADP Package	Trend Micro IoT Security

Alarm and Event

Event Trigger	Audio detection, camera tampering detection, cybersecurity events (brute force attack event, cyberattack event, quarantine event), digital input, manual trigger, motion detection, periodical trigger, recording notification, SD card life expectancy, shock detection, system boot
Event Action	Camera: Event notification via digital output, email, HTTP, FTP, NAS server, SD card, push notification File upload via email, HTTP, FTP, NAS server, SD card ANPR Software: Socket client, socket server, onvif event, digital output trigger, HTTP, FTP, send event to Milestone VMS, wiegand protocol supported

General

Smart Focus System	RBF (Remote Back Focus)
IP Camera Connectors	RJ-45 cable connector for Network/PoE connection *1 Audio input *1 Audio output *1 DC 12V/AC 24V power in *1 Digital input *2 Digital output *2 RS485 *1 BNC *1
Safety Certifications	IP Camera: CE, LVD, FCC Class B, VCCI, C-Tick, UL
Warranty	36 months

System Requirements

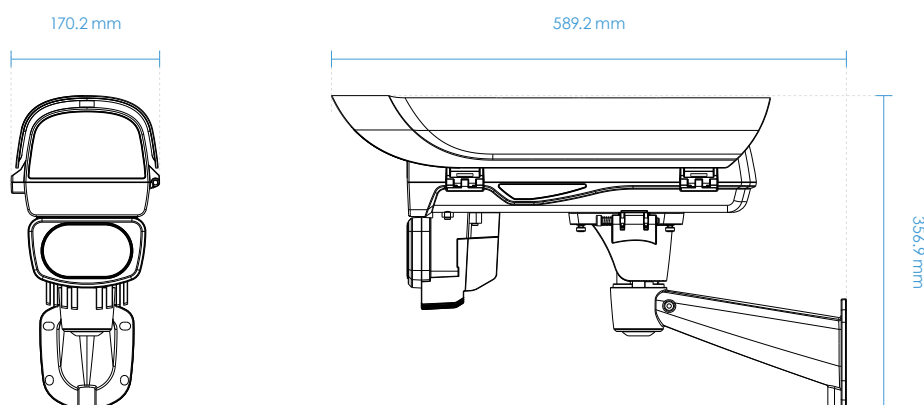|	
Operating System	Microsoft Windows 8/7 Mac 10.12 (Chrome only)
Web Browser	Chrome 58.0 or above Internet Explorer 10/11

Technical Specifications

Other Players	VLC: 1.1.11 or above

Network Camera - Technical Specifications	
Model	IP9165-LPR
CPU	Multimedia SoC (System-on-Chip)
Flash	512MB
RAM	1GB

Camera Features

Image Sensor	1/2" Progressive CMOS
Maximum Resolution	1920x1080 (2MP)
Lens Type	Vari-focal, Remote Back Focus, i-CS
Focal Length	f = 9 ~ 50 mm [IP9165-LPR (9-50mm)] f = 12 ~ 40 mm [IP9165-LPR (12-40mm)]
Aperture	F1.5 [IP9165-LPR (9-50mm)] F1.8 ~ F2.3 [IP9165-LPR (12-40mm)]
Auto-iris	i-CS [IP9165-LPR (9-50mm)] P-iris [IP9165-LPR (12-40mm)] (DC-iris reserved)
Field of View	IP9165-LPR (9-50mm): 42.8° ~ 8.3° (Horizontal) 24.3° ~ 4.7° (Vertical) 48.9° ~ 9.46° (Diagonal) IP9165-LPR (12-40mm): 34.2° ~ 11.6° (Horizontal) 18.7° ~ 6.6° (Vertical) 39.8° ~ 13.3° (Diagonal)
WDR Technology	WDR Pro II
Day/Night	Removable IR-cut filter for day & night function (Headlight filter design for Anti-Glare)
Pan/Tilt/Zoom Functionalities	ePTZ: 48x digital zoom (4x on IE plug-in, 12x built in)
On-board Storage	Built-in 32GB MicroSD card for LPR images Slot type: Micro SD/SDHC/SDXC card slot (Max. SD card capacity: 128GB) Seamless Recording

Video

Maximum Frame Rate	60 fps @ 1920x1080
S/N Ratio	66.2 dB
Dynamic Range	140 dB

Audio

Audio Capability	Two-way Audio (full duplex)
Compression	G.711, G.726
Interface	External microphone input External line output

Technical Specifications

IR LED - Technical Specifications

Model	AI-109, Snap-in IR illuminator
Max. Distance	Up to 35meters for LPR street application
Beam Angle	10° ~ 30° remote adjustable
Input Power	24VAC/28VDC with AE-23A enclosure
Power Consumption	48 W
Weight	450 g
Housing	Weather-proof IP68-rated housing Vandal-proof IK10-rated housing
Operating Temperature	-40 °C ~ 50 °C (-40°F ~ 122°F)
Color	White
Wavelength	850nm
Dimensions	135 x 106 x 111 mm (5.3 x 4.2 x 4.4 inch)
Included Accessories	U-Type Bracket (134 × 34 × 81.5 mm)
Certifications	CE, FCC class B, EN62471
Integrated Control	Built-in photocell for automatic IR on/off

Dimensions

170.2 mm

589.2 mm

356.9 mm

Ordering Information

Category	Model / Description
LPR Kit	IP9165-LPR Kit (Street, 9-50mm, i-CS, Snap-in IR) P/N: 199005600G IP9165-LPR Kit (Street, 12-40mm, Snap-in IR) P/N: 199005700G
IP Camera	IP9165-LPR (9-50mm, i-CS) 2MP, 60fps, WDR Pro 140dB, i-CS, 3DNR, DIS P/N: 100240900G IP9165-LPR (12-40mm) 2MP, 60fps, WDR Pro 140dB, Remote Back Focus, 3DNR, DIS P/N: 100241000G
Enclosure Kit AE-23A-P PN: 900053100G	IR LED: AI-109 48W embedded IR Illuminator, 850nm 10° ~ 30° remote control beam angle Enclosure: AE-23A Outdoor Enclosure with Anti-Icing Heated Glass, Fan, AC24V or DC24V in, IP68, IK10, Sun shield, 80W surge protect, optional VAIR Illuminators Bracket: AM-21E Cable Management, Wall Mount Bracket

Compatible Accessories

Lens	Lens
AL-239	AL-24A
8 ~ 80mm, F1.6, DC-iris	12 ~ 40mm, F1.8, P-iris (Standard Package)

Lens	Lens
AL-24B	AL-252
3.6 ~ 17mm, F1.5, P-iris	9 ~ 50 mm, F1.5, i-CS (Standard Package)

Brackets	Brackets
AM-314	AM-315
Pole Mount Bracket	Pole Mount Bracket

Power	Power
HLG-120H-24	AA-351
120W Single Output Switching Power Supply, DC24V	Outdoor power box, IP67, IK10

Power
AA-352
Outdoor power box, IP67, IK10