



IP9165-LPR

License Plate Recognition Box Camera

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

- Embedded LPR Software for Urban/Road Applications
- Supports License Plates from over 70+ Countries
- Black and White Lists for License Plate Verification
- Centralized List Management in Single Camera
- Taking Snapshots from Another Related Overview Camera as Evidence Images
- Fully Integrated with VAST 2
- Various Open APIs Available for 3rd Party Integration



Overview

VIVOTEK's IP9165-LPR camera is embedded 60mph (90kmph) license plate recognition software supporting white-lists and black-lists for advanced license plate verification. It can read the license plates of multiple countries or states simultaneously (e.g., Singapore and Malaysia; Texas, Oklahoma and neighboring states). Besides, the IP9165-LPR offers various APIs for integration with 3rd party systems to fulfill different applications such as city surveillance, living communities, expressway, and toll management. Featuring with 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.

Technical Specifications

System Information

Model	IP9165-LPR (9-50mm) IP9165-LPR (12-40mm)
CPU	Multimedia SoC (System-on-Chip)
Flash	512MB
RAM	1GB

Camera Features

Image Sensor	1/2" Progressive CMOS
Max. Resolution	1920x1080 (2MP)
Lens Type	Vari-focal, Remote 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)
Shutter Time	1/60 sec. to 1/16,000 sec.
WDR Technology	WDR Pro II
Day/Night	Yes
Removable IR-cut Filter	Yes
Minimum Illumination	IP9165-LPR (9-50mm): 0.01 Lux @ F1.5 IP9165-LPR (12-40mm): 0.08 Lux @ F1.8
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: MicroSD/SDHC/SDXC card slot (Max. SD card capacity: 128GB) Seamless Recording

Video

Video Compression	H.265, H.264, MJPEG
Maximum Frame Rate	60 fps @ 1920x1080
Maximum Streams	4 simultaneous streams
S/N Ratio	66.2 dB
Dynamic Range	140 dB
Video Streaming	Adjustable resolution, quality and constant bit rate control, Smart Stream III
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

Audio

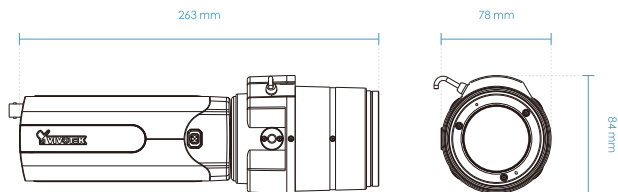
Audio Capability	Two-way Audio (full duplex)
Audio Compression	G.711, G.726
Audio Interface	External microphone input External line output

Network

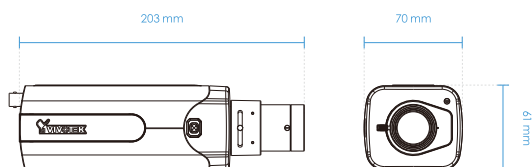
Security	Access list, digest authentication, HTTPS , IEEE 802.1x, Password protection, Trend Micro IoT Security (brute force attack event, cyberattack event, quarantine event), user access log, user account management
Users	Live viewing for up to 10 clients
Protocols	Camera: 802.1X, ARP, CIFS/SMB, CoS, DDNS, DHCP, DNS, FTP, HTTP, HTTPS, ICMP, IPv4, IPv6, NTCIP, NTP, PPPoE, QoS, RTSP/RTP/RTCP, SMTP, SNMP, SSL, TCP/IP, TLS, UDP, UPnP Urban ANPR package: 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	
Alarm Triggers	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
Alarm Events	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	
Connectors	RJ-45 cable connector for 10/100/1000Mbps Network/PoE connection Audio input Audio output DC 12V/AC 24V power input Digital input*2 Digital output*2 RS485*1 BNC*1
LED Indicator	System power and status indicator
Power Input	IEEE 802.3af PoE Class 0 DC 12V AC 24V (Power Redundancy)
Power Consumption	DC 12V: Max. 9 W AC 24V: Max. 18 W PoE: Max. 9.06 W
Dimensions	IP9165-LPR (9-50mm): 263 (D) x 78 (W) x 84 (H) mm IP9165-LPR (12-40mm): 203 (D) x 70 (W) x 61 (H) mm
Weight	680 g (w/o lens) 790 g (w/ lens)
Safety Certifications	CE, LVD, FCC Class B, VCCI, C-Tick, UL
Operating Temperature	Start Temperature: 0°C ~ 50°C (32°F ~ 122°F) Working temperature: -10°C ~ 60°C (14°F ~ 140°F)
Humidity	90% RH (non-condensing)
System Requirements	
Operating System	Microsoft Windows 8/7 Mac 10.12 (Chrome only)
Web Browser	Chrome 58.0 or above Internet Explorer 10/11
Other Players	VLC: 1.1.11 or above
Included Accessories	
Others	Quick installation guide, warranty card, lens, camera stand, screw pack

Dimensions

IP9165-LPR(9-50mm)



IP9165-LPR(12-40mm)



Compatible Accessories

Enclosures



AE-23A
Outdoor enclosures, AC input, IP68, IK10

Enclosures



AE-23E-v2
Outdoor enclosures, PoE input, IP68, IK10

Enclosures



AE-244
Outdoor enclosures, PoE input, built-in 50m IR, PoE input, IP68, IK10

Lens



AL-239
8 ~ 80mm, F1.6, DC-iris

Lens



AL-24A
12 ~ 40mm, F1.8, P-iris (Standard Package)

Lens



AL-24B
3.6 ~ 17mm, F1.5, P-iris

Lens



AL-252
9 ~ 50mm, F1.5, i-CS (Standard Package)