



IP9172-LPC (Freeway)

License Plate Capture Solution

155MPH (250km/hr) • Recognition Distance 25M • Remote focus •
Global Shutter Sensor • Pulse mode IR • Auto Exposure Bracketing

VIVOTEK's IP9172-LPC (Freeway) is a high-performance, network-based vehicle imaging system designed to provide clear license plate images for reliable recognition in high-speed traffic applications. Adopting a 3-Megapixel global shutter sensor providing high-resolution images to support a wide range of dual lane scenarios and the built-in corresponding pulse mode IR LEDs, the camera can support a maximum car speed of up to 250kmph with lower power consumption.

Employing the unique Auto Exposure Bracketing (AEB) function allows the camera to capture both surrounding and license plate views even at night time. Additionally, the IP9172-LPC is endowed with a 12-40mm focal length remote focus lens. The CaMate IR utilizing CVA Tech provides adjustable beam angles from 20 to 40 degrees for variable distances, enabling the installers to adjust zoom/focus both more precisely and with greater flexibility.

Key Features

- Capture Vehicle Speeds of up to 155MPH (250 km/hr)
- Supreme Anti-Glare Capability
- Automatic Exposure Bracketing Function (AEB)
- Deal with Reflective and Non-Reflective License Plates by Single Camera
- Pre-Assembled LPC Kit for Easy Installation
- Remote Controllable Lens and IR Illuminator for Low Maintenance

Functions

High Speed Vehicle Capturing System

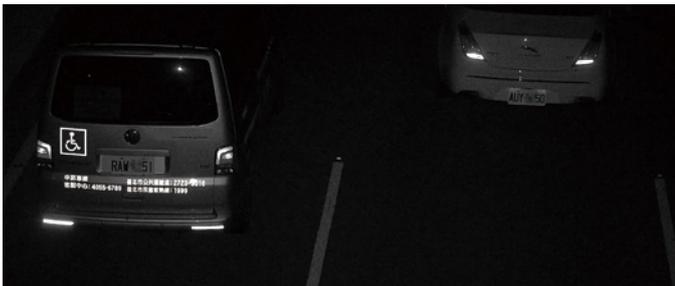
VIVOTEK's IP9172-LPC (Freeway) adopts a 3-Megapixel global shutter sensor combined with the built-in corresponding 24W pulse mode IR LEDs. The camera can provide clear license plate images for reliable recognition in high-speed traffic applications.



155 MPH

Capturing Both Reflective AND Non-Reflective License Plates

Employing a unique Auto Exposure Bracketing function allows the IP9172-LPC camera to capture both reflective and non-reflective license plate at the same time, even at night time, and it can provide detailed images like car color, brand and type for general traffic surveillance purposes. Therefore, with only one VIVOTEK IP9172-LPC camera, users can yield more information from a single location than with previous multi-camera systems.



Reflective



Non-Reflective Vehicle Information

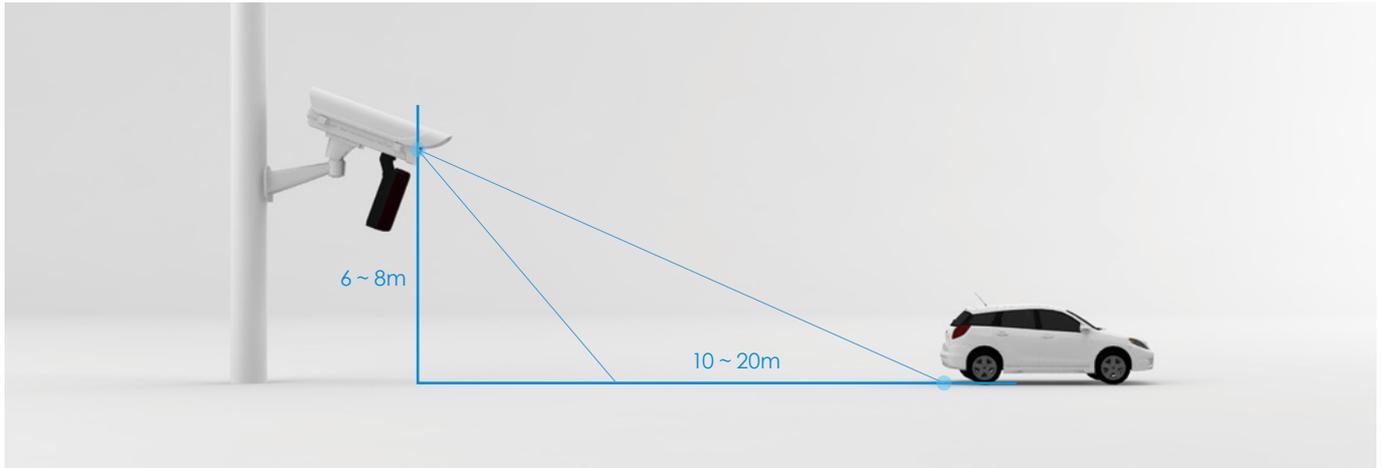
Supreme Anti-Glare Capability

Capturing images at night is a challenging issue for any surveillance application, but for License Plate Capture applications the challenge is even greater due to noise and glare caused by the headlights of cars. The IP9172-LPC (Freeway) is equipped with external 24W pulse mode IR illuminators and a delicate headlight filter, which help to filter out reflected light and only capture detailed information from the plates. Moreover, the IR threshold is also programmed to deploy the IR illuminator automatically to ensure 24/7 & Day/Night performance.



Clear Image Captured with IR Illuminators and Headlight Filter

Suggested Installation



Technical Specifications

Model	IP9172-LPC (Freeway)	
Max. Speed	155MPH (250 km/hr)	
IR Threshold	IR on: 300 Lux IR off: 600 Lux RS485 configurable	
Shutter Time	1/480 to 1/16,000 sec.	
Max. Shutter Time	1/120 to 1/32,000 sec.	
IR Illuminators	24W, 20~40° remote adjustable	
Capture Range	Up to 25 meters	
Captured Lanes	Dual Lanes (*Suggest width per lane: 3.5~4M)	
Power Input	DC24V or AC24V	
Power Consumption	Max. 60W, AC/DC 24V (Heater on) Max. 45W, AC/DC 24V (Heater off)	
Weight	6,482 g	
Housing	Weather-proof IP68-rated housing Vandal-proof IK10-rated housing	
Operating Temperature	Starting Temperature: 0°C ~ 60°C (32°F ~ 140°F) -40°C ~ 60°C (-40°F ~ 140°F), with 30W heater on Working Temperature: 0°C ~ 60°C (32°F ~ 140°F) -40°C ~ 60°C (-40°F ~ 140°F), with 15W heater on	
Humidity	90%	
Video		
Compression	H.265, H.264, MJPEG	
Maximum Streams	3 simultaneous streams	
Image Settings		
Adjustable image size, quality and bit rate; Time stamp, text overlay, flip & mirror; Configurable brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, AE speed, privacy masks; Scheduled profile settings, HLC, defog, DIS; video rotation, remote focus, LPC scene mode, AEB, Spectrum mode		
Network		
Users	Live viewing for up to 10 clients	
Protocols	IPv4, IPv6, TCP/IP, HTTP, HTTPS, UPnP, RTSP/ RTP/RTCP, IGMP, CIFS/SMB, SMTP, FTP, DHCP, NTP, DNS, DDNS, PPPoE, CoS, QoS, SNMP, 802.1X, UDP, ICMP, ARP, TLS, SSL	
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	Supported, specification available at www.onvif.org	
Alarm and Event		
Alarm Triggers	Manual trigger, digital input, periodical trigger, system boot, recording notification, audio detection, MicroSD card life expectancy	
Alarm Events	Event notification using digital output, HTTP, SMTP, FTP, NAS server and MicroSD card File upload via HTTP, SMTP, FTP, NAS server and MicroSD card	
General		
IP Camera Connectors	RJ-45 cable connector for Network/PoE connection *1 Audio input *1 Audio output *1 AC 24V power in *1 DC 12V power in *1 Digital input *2 Digital output *1 RS485 *1	

Technical Specifications

Safety Certifications	Whole Kit: CE, LVD, FCC Class A, VCCI, C-Tick, UL Network Camera: CE, LVD, FCC Class B, VCCI, C-Tick, UL
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System Requirements

Operating System	Microsoft Windows 8/7 Mac 10.12 (Chrome only)
Web Browser	Chrom 58.0 or above Internet Explorer 10/11
Other Players	VLC: 1.1.11 or above QuickTime: 7 or above

Network Camera - Technical Specifications

Model	IP9172-LPC (Freeway)
CPU	Multimedia SoC (System-on-Chip)
Flash	128 MB
RAM	1 GB

Camera Features

Image Sensor	1/1.8 Global Shutter CMOS
Maximum Resolution	2048 x 1536 (3MP)
Lens Type	Vari-focal, Remote focus
Focal Length	f = 12 ~ 40 mm
Aperture	F1.8 ~ F2.3
Auto-iris	P-iris
Field of View	12.3° ~ 35.8° (Horizontal) 9.8° ~ 26.3° (Vertical) 15.8° ~ 47.6° (Diagonal)
LPR Technology	LPC Scene mode, Spectrum mode*, Auto Exposure Bracketing (AEB) *Spectrum mode for license plate image enhancement
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	Slot type: MicroSD/SDHC/SDXC card slot (Max. SD card capacity: 128GB) Seamless Recording

Video

Maximum Frame Rate	AEB off: 55 fps @ 2048 x 1536 60 fps @ 1920 x 1080 AEB On: 30fps @ 1920 x 1080 (Stream 1, Stream 2) 60 fps @ 1920 x 1080 (Stream3)
S/N Ratio	56 dB
Dynamic Range	50 dB

Audio

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

IR LED - Technical Specifications

Model	CF24I8-2040
Max. Distance	25 meters
Beam Angle	20° ~ 40° remote adjustable
Input Power	24VDC ±10%
Power Consumption	Max. 24 W Pulse mode: Power output type 288 W
Weight	2.1 kg
Housing	Weather-proof IP68-rated housing Vandal-proof IK10-rated housing
Operating Temperature	Continous Mode: -40°C ~ 50°C (-40°F ~ 122°F) Pulse Mode: -40°C ~ 60°C (-40°F ~ 140°F)
Color	Black
Wavelength	850nm
Dimensions	220 x 160 x 73 mm
Included Accessories	U-Type Bracket (134 × 34 × 81.5 mm)
Certifications	EN50130-4, CE: EN61000-6-3, FCC Class A, EN60529
Integrated Control	Built-in photocell for automatic IR on/off

Compatible Accessories

Brackets		Power		
 AM-314 Pole Mount Bracket	 AM-315 Pole Mount Bracket	 HLG-80H-24 80W Single Output Switching Power Supply, DC24V	 AA-351 Outdoor Power Box, IP67, IK10	 AA-352 Outdoor Power Box, IP67, IK10