VIVOTEK
A Delta Group Company

IP9181-LPC-V2 Kit

License Plate Capture Solution (110MPH/180km/hr), i-CS

Three Lanes • Anti-Glare • 110MPH (180km/hr) • Scene Overview • Recognition Distance 20M • Remote Back Focus • EIS • CVA Tech
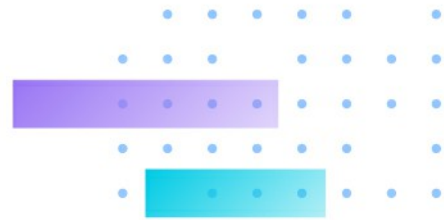
Technical Specifications - Kit

System Information

Model	IP9181-LPC-V2 Kit (Street, Snap-in IR, 9-50mm, i-CS) IP9181-LPC-V2 Kit (Highway, 9-50mm, i-CS)
Max. Speed	Highway: 110MPH (180 km/hr) Street: 60MPH (90 km/hr)
IR Threshold	IR on: 300 Lux IR off: 600 Lux RS485 configurable
Shutter Time	Highway: 1/1,600 to 1/100,000 sec. Street: 1/1,000 to 1/100,000 sec.
Max. Shutter Time	1/100,000 s to 1 sec
Illuminators	Highway: CA80I8-2040 *1, 80W, 20° ~ 40° remote control beam angle Street: AI-109 *1, 48W, 10° ~ 30° remote control beam angle, embedded IR illuminator *extra IR illuminators may needed for non-reflective license plates
Capture Range	Up to 20 meters *Suggested Distance: 10 ~ 20 m
Captured Lanes	Highway: Road-side: 2 Lanes Gantry: 2 Lanes Street: Road-side: 2 Lane Gantry: 3 Lanes *Suggested width per lane: 3.5 ~ 4M
Power Input	AC/DC 24V
Power Consumption	Highway: Max. 110W, AC/DC 24V Suggested Power: AC 24V or DC 24V/5A Street: Max. 78W, AC/DC 24V Suggested Power: DC 24V or AC 24V/3.5A

Weight	9-50mm: Highway : 6,666 g Street: 6,380 g 12-40mm: Highway : 6,482 g Street: 6,200 g
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%(non-condensing)

Video

Compression	H.265, H.264, MJPEG
Maximum Streams	3 video streams (Up to 8 configurable profiles)
Image Settings	General settings: video title and time stamp overlay, video orientation (flip, mirror, rotation), day /night settings; Illuminators: illuminators, anti-overexposure; Image settings: white balance, image adjustment (brightness, contrast, saturation, sharpness, gamma curve), defog, 3DNR, HLM, EIS*, scene mode (parking lot, street, highway); 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	802.1X, ARP, Bonjour, CIFS/SMB, DDNS, DHCP, DNS, FTP/SFTP, HTTP, HTTPS, ICMP, IGMPv3, IPv4, IPv6, NTCIP, NTP, PPPoE, QoS (CoS/DSCP), RTSP/RTP/RTCP, SMTP, SNMP, SSL, TCP/IP, TLS 1.2, UDP, UPnP
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, T supported, specification available at www.onvif.org

AI Analytics

Compute Capability	SoC with built-in hardware deep learning accelerator
Vision Object Analytics	Object Detection: people, vehicle (4-wheeled, 2-wheeled); Attribute Extraction: people (gender, color, bag, hat), vehicle (bike, bus, car, motorcycle, truck, color); Re-Search Extraction; Path Extraction
Application	Deep Learning VCA (Smart Motion Detection) Smart VCA with i-CS lens Smart VCA (Smart VCA (Intrusion detection, Loitering detection, Line crossing detection, Unattended object detection, Missing object detection, Crowd detection) Smart VCA with non i-CS lens Smart VCA (Smart VCA (Intrusion detection, Loitering detection, Line crossing detection)
Application available with license	Running detection, Parking Violation Detection, Restricted Zone Detection Support for more analytic applications and free trial, please visit vivotek.com/video-analytics

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	Event notification via audio clip, camera link, digital output, email, HTTP, FTP/SFTP, NAS server, SD card, push notification File upload via email, HTTP, FTP/SFTP, NAS server, SD card

General

Built-in Installation Aids	Remote back focus, BNC (CVBS)
IP Camera Connectors	RJ-45 cable connector for 10/100/1000Mbps Network/PoE connection Audio line input Audio line output AC 24V power input DC 12V power input Digital input *2 Digital output *2 (12V, 50mA) BNC out RS-485
Safety Certifications	IP Camera: CE, LVD, FCC Class B, VCCI, C-Tick, UL/CUL, BIS, BSMI

System Requirements

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

Technical Specifications - Network Camera

System Information

Model	IP9181-LPC-V2 (9-50mm, i-CS)
CPU	Multimedia SoC (System-on-Chip)
Flash	8 GB
RAM	2 GB

Camera Features

Image Sensor	1/2.8" Progressive CMOS
Maximum Resolution	2560 x 1920 (4:3) 2880 x 1632 (16:9)
Lens Type	Vari-focal, Remote Focus, i-CS
Focal Length	9~50mm
Aperture	F1.5
Iris Type	DC-iris, P-iris, i-CS
Field of View	30.7°~6° (Horizontal) 23.1°~4.5° (Vertical) 38.2°~7.4° (Diagonal)
WDR Technology	WDR Pro
Day/Night	Yes 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	Seamless Recording to MicroSD/SDHC/SDXC card and recording to network-attached storage (NAS)

Video

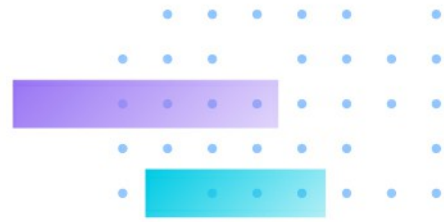|	
Maximum Frame Rate	2560 x 1920 @ 30 fps (WDR on) 2880 x 1632 @ 30 fps (WDR on)
S/N Ratio	60dB above
Dynamic Range	120 dB

Audio

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

Technical Specifications - IR Illuminator

General

Model	CA80I8-2040: IP9181-LPC-V2 Kit (Highway), 80W, 20° ~ 40° remote adjustable AI-109: IP9181-LPC-V2 Kit (Street), 48W, 10° ~ 30° remote adjustable *extra IR illuminators may needed for non-reflective license plates
Max. Distance	CA80I8-2040: 170 ~ 280 meters (with 1/30sec shutter time) AI-109: 150 ~ 350 meters (with 1/30sec shutter time)
Beam Angle	CA80I8-2040: 20° ~ 40° remote adjustable AI-109: 10° ~ 30° remote adjustable

Power Input	CA80I8-2040: 24VDC ±10%, 24VAC(50/60Hz) ±10% AI-109: 24VAC/28VDC with AE-23A encolsure
Power Consumption	CA80I8-2040: 80W AI-109: 48W
Weight	CA80I8-2040: 2.1 kg AI-109: 450 g
Housing	Weather-proof IP68-rated housing Vandal-proof IK10-rated housing
Operating Temperature	CA80I8-2040: -40 °C ~ 60 °C (-40 °F ~ 140 °F) AI-109: -40 °C ~ 50 °C (-40°F ~ 122°F)
Color	CA80I8-2040: Black AI-109: White
Wavelength	850nm
Dimensions	CA80I8-2040: 220 x 160 x 73 mm AI-109: 135 x 106 x 111 mm
Included Accessories	CA80I8-2040: U-Type Bracket (134 × 34 × 81.5 mm)
Certifications	CA80I8-2040: IEC 62471, EN 50130-4, CE: EN61000-6-3, EN60598-1, EN60598-2-5, FCC Class A, EN60529 AI-109: CE, FCC class B, EN62471
Integrated Control	Built-in photocell for automatic IR on/off

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