



S Series

IB9387-LPR-V3 (7-22 mm) (V)

5MP License Plate Recognition
Camera



Technical Specifications

System Information	
CPU	Multimedia SoC (System-on-Chip)
Flash	eMMC 8 GB
RAM	DDR4 2 GB

Camera Specifications

Image Sensor	1/2.8" Progressive CMOS
Max. Resolution	2560x1920 (5MP)
Lens Type	Motorized, Vari-focal, Remote Focus
Focal Length	f= 7 ~ 22 mm
Aperture	F1.70(W) ~ F2.90(T)
Iris Type	P-iris
Field of View	39.3° ~ 15.5° (Horizontal) 28.8° ~ 11.6° (Vertical) 50.8° ~ 19.4° (Diagonal)
Shutter Time	1/5 sec. to 1/32,000 sec.
WDR Technology	WDR Pro
Day/Night	Yes
Removable IR-cut filter	Yes
Illuminators	Built-in IR illuminators, IR LED*4 (50IRE)
Minimum Illumination	0.035 lux @ F1.7 (Color) <0.005 lux @ F1.7 (B/W) 0 lux with IR illumination on
Pan Range	±180°
Tilt Range	90°
Rotation Range	±180°
Pan/Tilt/Zoom Functionalities	ePTZ: 48x digital zoom (4x on IE plug-in, 12x built-in)
Storage	Seamless Recording to MicroSD/SDHC/SDXC card (1TB Capacity Supported) and recording to network-attached storage (NAS)
Built-in Installation Aids	Remote focus, remote zoom, Micro USB* , pixel calculator *Requires Wi-Fi dongle and Micro B converter

Video	
Compression	H.265, H.264, MJPEG
Maximum Frame Rate	30 fps @ 2560x1920 (WDR Pro on) 30 fps @ 2560x1440 (WDR Pro on) 60 fps @ 1920x1080 (WDR Pro off)
Maximum Streams	3 video streams (Up to 8 configurable profiles)
Main Stream	30fps @ 2560x1920, 1600x1200, 1280x960, 640x480 (4:3); 30fps @ 2560x1440, 1920x1080, 1600x904, 1280x720,1360x768, 640x360 (16:9) 60 fps @ 1920x1080, 1600x904, 1360x768, 1280x720, 640x360 (16:9)
2nd Stream	30fps @ 2560x1920, 1600x1200, 1280x960, 640x480 (4:3); 30fps @ 2560x1440, 1920x1080, 1600x904, 1280x720,1360x768, 640x360 (16:9) 60 fps @ 1920x1080, 1600x904, 1360x768, 1280x720, 640x360 (16:9)
3rd Stream	30fps @ 1280x960, 640x480 (4:3); 30 fps @ 1280x720, 640x360 (16:9); 60 fps @ 1280x720, 640x360 (16:9)
S/N Ratio	70 dB
Dynamic Range	120 dB
Video Streaming	Adjustable resolution, quality and constrained bit rate control, Smart Stream III
Image Settings	<p>General settings video title and time stamp overlay, video orientation (flip, mirror, rotation), day/night settings</p> <p>Illuminators illuminators, anti-overexposure, VCA-based Smart IR III</p> <p>Image settings white balance, image adjustment (brightness, contrast, saturation, sharpness, gamma curve), defog, 3DNR, EIS (built-in gyro sensor), scene mode (LPC-parking lot)</p> <p>Exposure BLC, HLC, exposure control (exposure level, iris adjustment, exposure time, gain control, iris mode), AE speed adjustment, WDR</p> <p>Focus zoom, focus</p> <p>Privacy mask pixel calculator Scheduled profile settings</p>

Audio	
Audio Capability	Two-way audio (Full duplex)
Compression	G.711, G.726, MPEG-2 AAC-LC
Interface	External microphone input External line output

Network	
Users	Live viewing for up to 10 clients
Security	Access list, Account block , Audit log, Configurable password strength protection, CSRF protection, Digest authentication, HTTPS , IEEE 802.1x, Secure boot, Session timeout, Signed firmware, Trend Micro IoT Security (Brute force attack event, Cyberattack event, Quarantine event), User access log, User account management
Protocols	802.1X, ARP, Bonjour, CIFS/SMB, DDNS, DHCP, DNS, FTP/SFTP, HTTP/HTTPS, ICMP, IGMPv3, IPv4, IPv6, NTP, PPPoE, QoS (CoS/DSCP), RTSP/RTP/RTCP, SMTP, SNMP, SSL, TCP/IP, TLS 1.2/1.3, UDP, UPnP
Interface	10 Base-T/100 Base-TX Ethernet *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
Application available with license	VaxALPR

Solution Integration

Embedded Software	VaxALPR
VADP Package	Trend Micro IoT Security

Alarm and Event

Event Trigger	Camera: 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 VaxALPR Software: FTP, JSON, XML, TCP Server, TCP client, Wiegand protocol supported
Event Action	Event notification via audio clip, camera link, digital output, email, HTTP, FTP/SFTP, NAS server, SD card File upload via email, HTTP, FTP/SFTP, NAS server, SD card

General

Connectors	Default IO RJ-45 cable connector for 10/100 Mbps PoE network connection Audio line input Audio line output DC 12V power input AC 24V power input Digital input*2 Digital output*2 (DO+: 12V, 50mA ; DO-: 30V, Open Drain, 1A) Micro USB
LED Indicator	System power and status indicator
Power Input	AC 24V*, DC 12V, IEEE 802.3af PoE Class 0 (Power Redundancy)
Power Consumption	PoE: Max. 12.95W/ 10.55W (IR on/off) DC 12V: Max. 14.4W/ 12.0W (IR on/off) AC 24V*: Max. 12W/ 9.6W (IR on/off)
Dimensions	ø 153 x 285.7 mm
Weight	2.20 kg
Certifications	EMC CE (EN 55032/EN 55035 Class A, EN 50121-4), FCC (FCC Part 15 Subpart B Class A), UKCA (BS EN 55032/BS EN 55035 Class A), RCM (AS/NZS CISPR 32 Class A), VCCI (VCCI-CISPR 32 Class A), IC (ICES-003 Issue 7) Safety UL (UL 62368-1), CB (IEC/EN 62368-1, IEC/EN 60950-22, IEC/EN 62471), LVD, (EN 62368-1), UKCA (BS EN IEC 62368-1) Environment IK10 (IEC 62262), IP66/67 (IEC 60529), NEMA (NEMA 250 Type 4X), IEC 60068-2-11 IA BIS (IS 13252), BSMI (EMC: CNS 13438, Safety: CNS 14336-1)
Operating Temperature	Starting Temperature: -30°C ~ 60°C (-22°F ~ 140°F) Working Temperature: -40°C ~ 60°C (-40°F ~ 140°F) (IR off) -40°C ~ 50°C (-40°F ~ 122°F) (IR on)
Humidity	98% RH (non-condensing)

System Requirements

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

Included Accessories

Packing Contents	Quick installation guide, product labels, alignment sticker, L-shaped wrench, screw pack, waterproof accessory pack, sunshield, adapting plate, conduit bracket, I/O cable
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DORI (EN 62676-4 Standard)

Detection (25PPM/ 8PPF)	Wide: 157.3 m (516.0 ft) Tele: 378.2 m (1240.6 ft)
Observation (63PPM/ 19PPF)	Wide: 62.7 m (205.6 ft) Tele: 151.3 m (496.2 ft)
Recognition (125PPM/ 38PPF)	Wide: 31.4 m (103.2 ft) Tele: 75.9 m (249.1 ft)
Identification (250PPM/ 76PPF)	Wide: 15.7 m (51.4 ft) Tele: 37.9 m (124.3 ft)