

# LPR-104HD

## Multichannel, Multilane License Plate Recognition (LPR) system



LPR-104HD system employs Streaming Networks' innovative LPR technology to accurately read retro-reflective and non-reflective license plates of USA, Canada, Mexico, UK and European countries. Using infra-red (IR) or color video cameras the system reads misaligned license plates, and plates partially hidden by plate frames. The system supports both fixed and mobile camera applications.

The fast and reliable OCR engine is built on latest technologies and algorithms that provide highly accurate plate detection from a real-time video stream with a resolution of up to 1080p (1920x1080). It supports standard IP camera's protocols communication and encoding standards. It uses MJPEG video stream over HTTP and H.264 video stream over RSTP protocols. Open architecture of the LPR system lends itself for the LPR data to be ingested by 3rd party Video Management Systems such as BOSCH BVMS, GENETC SQL, Microsoft SQL, Vigilant LEARN and Streaming Networks IDS.

LPR System is designed to be an appliance requiring no additional hardware or software. Just plug in the LPR unit to your network, set the camera IP address and credentials and you are ready to capture the license plates of the traffic passing in front of the camera's field of view.

### Internal and external storage

Stores LPR records (image of the vehicle, image of the plate, text data, GPS, time stamp, camera name, system name, and hotplate status) on the internal SSD or external a built-in SSD (up to 1TB) or external USB storage device (up to 2 TB). In parallel, LPR data can be sent to a remote Server.

### Web interface

LPR system is easy to use and a user can login to the system using any commercial browser. There is no need to download any application. Graphical User Interface is designed to work with PC, laptop, tablet and smart phone.

### Built-in cellular modem with GPS support

LPR system has a SKU with built-in cellular modem with GPS support (Sierra Wireless 7354/7455) for mobile operations and for enabling an installation on a remote site with no internet access.

### WiFi connectivity

Supports built-in WiFi module for easy and secure access to the unit. WiFi can be used effectively during camera installation and monitoring when LPR appliance is used in mobile mode. For fixed installation, it could also eliminate the need for a truck roll to restart or power cycle the system.



### Data mining

While still capturing the number plates of the passing traffic, you can search for license plate records and wanted numbers by time & date, wild card number patterns, state, felony, camera names, system name and geographical locations.

### Email and sms alerts

LPR system has provision to send an alert as an e-mail or SMS notifications on capturing hot (wanted) plate numbers in real-time. In case of live monitoring, audible alarm and video display is set and stays in effect until the alert is acknowledged.



### All traffic accounted for

The system captures all the traffic passing in front of the field of view of the camera and categorizes each vehicle's license plates as readable, unreadable or missing. Unreadable and vehicles without license plate can be searched by time.

### License plate analytics

The LPR system in combination with iDS provides a user with powerful LPR based analytics for security and surveillance, commercial and traffic managements purposes. Analytics output can be saved both in pdf and Excel formats.

### Hotlist

A hotlist/whitelist can be uploaded to the LPR system which in real time compares the captured license plate with the hotlist/whitelist. Upon a hit, it generates an alert with nature of violation. A hotlist can have up to a million entries with hot plate, alert, state and comment fields.

### Vehicle speed measurement

The system accurately measures speed of passing vehicles in fixed camera installations. It requires non-intrusive video-based speed calibration that does not disturb traffic.

### Video evidence collection

The system records a 6 to 8 seconds video for each vehicle appearing in field of view of the camera if unit's operating mode is LPR (Video). Video stays on the attached USB media and can be downloaded on demand.

### Open architecture

The LPR system has been designed to be an open architecture which enables it to interface with 3rd party Video Management Software such as Bosch® VMS, Cisco® Kinetic for cities platform, Vigilant® LEARN data server, Genetec® VMS, Microsoft SQL and Milestone.

### Supported LPR cameras



### Typical applications

- Law enforcement
- Parking management
- Covert operations
- Vehicle access control
- Parked cars scanning
- Access control for gated communities



### Robust design

Single-purpose, in field upgradable firmware running on a rugged, field-tested hardware of extremely small form-factor with power consumption less than 5 W and designed as an appliance. No truck roll or complex programming/installation is needed.

**Patent Pending:** iRecord License Plate is protected by Patent pending that covers its operating modes including car-mounted mode, fixed-camera mode, PC-free stand-alone mode, Web browser mode, multiple database interfacing mode, video recording mode, PTZ surround camera mode, video management system mode, camera setup mode, centralized and de-centralized storage modes, multiple camera grid mode, and operating mode using hand-held devices.

## SPECIFICATIONS

No. of LPR channels	One 1080P high definition channel or two 720P high definition channels or four D1 standard definition channels
No. of supported LPR cameras	Single color/IR IP camera or dual (IR + color) IP cameras per LPR channel
Supported license plates	Retro-reflective and non-reflective license plates
Maximum plate reading rate	Two plates per second per channel
Video recording	Continuous and event-based video recording per channel in H.264 format
Hot list support	Real-time searching of up to 1000,000 hot list plates for exact, partial or fuzzy matches
Database query	Database query through Web browser interface: number based, time based and location-based search options of partial or exact matches
Email notification	Email and SMS notification of hot plate alerts with snapshot of hot plate image and number
Video trigger	Video signal-based license plate detection, no external triggers required
Supported LPR camera type	Interlaced/progressive scan color/IR IP based cameras (minimum shutter speed 1/500)
Supported analog cameras	NTSC/PAL cameras via video encoder
Camera sensor	Color/monochromatic or infra-red 740nm, 850nm, 940nm
Camera lens	(16, 25, 30, 50, 75) mm fixed focal length or 8-50mm variable focal length
Capture range	16mm: 10-20 ft, 25mm: 16-30 ft, 30mm: 20-36 ft, 50mm: 26-58 ft, 75mm: 50-100 ft
Maximum speed limit	Up to 140 mph (225 kmph) depending upon the camera sensor
Data storage	Built-in SSD, locally connected USB drive, remote storage server
Dimensions & Weight	4.92" x 3.14" x 1.14" and 0.6 lbs
System power input	8 to 30 V DC range (2mm Barrel connector)
Max. power consumption	5 Watt (excluding camera)

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