

COMMPORT

COMM PORT LPR SYSTEM DETAILS

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The COMM PORT LPR solution is an effective video security and parking monitoring solution that can enforce parking lot security. Many parking lots security are rated high risk due to their poor response to crimes and the common nature of parking lot incidents. Isolated corners or levels of a large lot make it difficult for security officers to patrol and monitor. To provide security and assurance to customers and employees, parking lots need high efficiency digital surveillance systems that provide live monitoring and continuous recording to enhance lots security and surveillance efficiency.

The COMM PORT LPR system provides high-resolution video monitoring and recording at good quality. When emergency intercoms are activated or panic buttons pushed, the parking attendants can judge the situation from the live view and respond correctly. The COMM PORT LPR is a reliable security surveillance system that is high on recording performance and low on maintenance.

RECOGNITION

COMM PORT LPR activates recognition process in two ways. One is by software video motion detection, which detects vehicles passing through the camera. Second is by I/O activation, which the action triggers recognition and recording on I/O activation. The system supports two view modes including Camera Overview and Picture-in-Picture with ease of monitoring.

BENEFITS

Unlike conventional surveillance systems which simply act as a security monitoring tool, the COMM PORT LPR system incorporates several intelligent features for customer service and lots marketing tools. For example, parking managers can utilize database function of the COMM PORT LPR to acquire analysis of lot utilization rate, such as vehicle counting, monthly parking frequency, or average parking time during holiday/weekday or at day time / night time. The database function is an ideal tool for parking lot managers because it facilitates effective utilization of parking space.

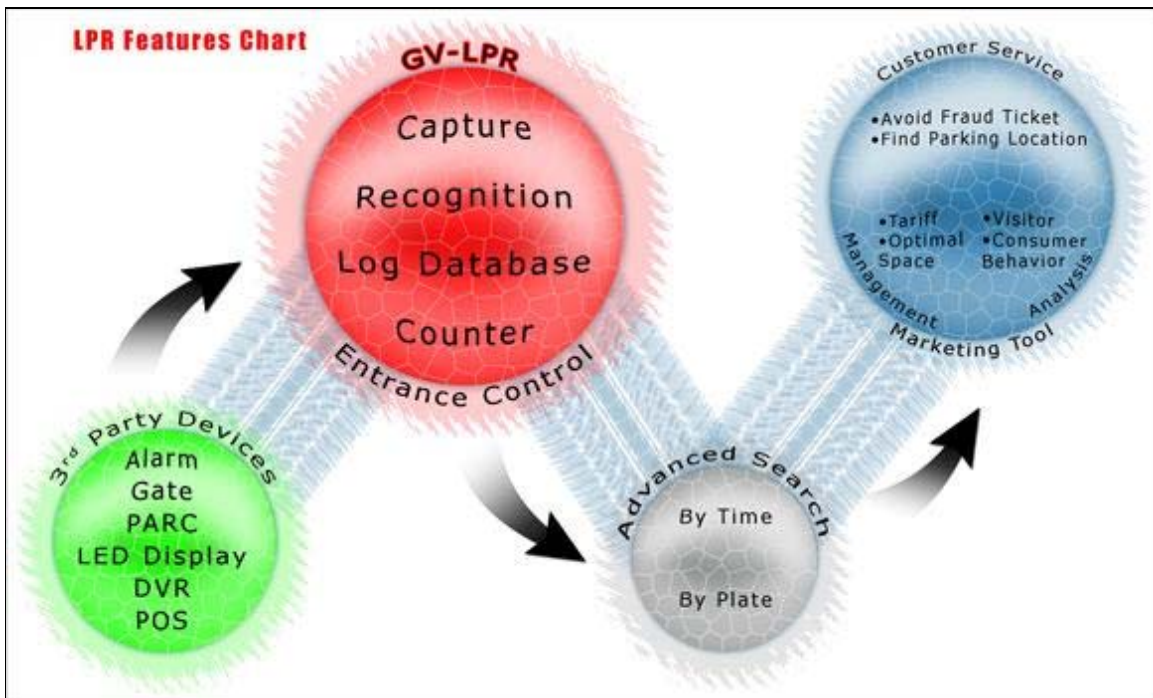
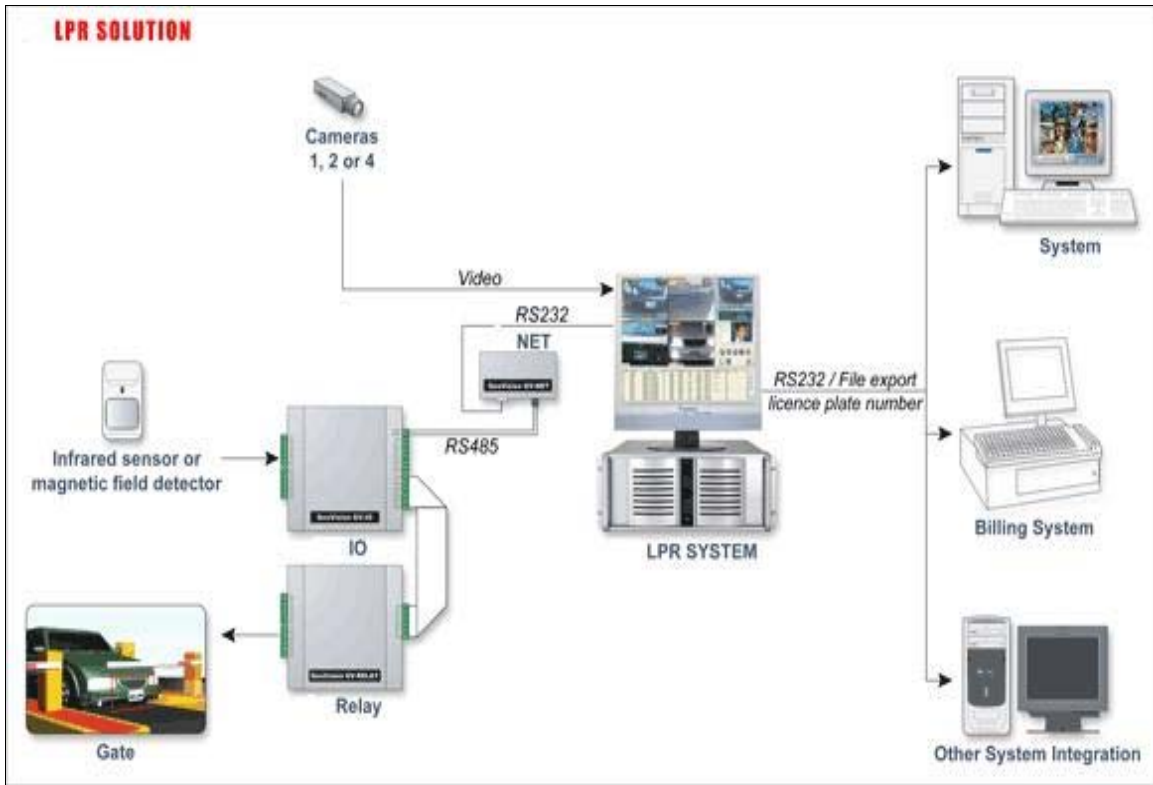
By integrating with POS system, the COMM PORT LPR will associate videos with data including license plate numbers, car entry/exit time, parking fee, and capture the driver's face, car type and the lot toll booth's cash register area as well. In case of fraud ticket or cash shrinkage investigation, parking managers can search for videos by any data available to expedite dispute settlement and increase the toll income.

The COMM PORT LPR provides multiple I/O connections to external devices such as gate controller, loop detector, or TITO system, as well as integrations to the DVR. Parking lot managers can use flexible integration according to their specific needs in parking management. When the TITO system is used and the CCTV cameras are installed in each area and floor of the parking lot, the COMM PORT LPR provides a very useful function that helps drivers find their parking location. The entry/exit time, parking fee, license numbers, parking locale will be printed on the parking receipt. When the driver is ready to take his car and leave, he can refer to the ticket to remember where he parked his car.

All of the above COMM PORT LPR applications compose a comprehensive and sophisticated solution for parking management.

KEY FEATURES

- ▶ High recognition rate: 99% (at best performance)
- ▶ High recognition speed: < 0.2 second
- ▶ Support up to 8 I/O Trigger or 4 Motion Detection lanes
- ▶ Support Hardware Watchdog
- ▶ Support image up to 720 x 480 (NTSC) / 720 x 576 (PAL) providing higher accuracy
- ▶ Integrate with DVR to retrieve video footage by license plate number
- ▶ Vehicle counter feature tracks number of vehicles remaining in the parking lot by counting vehicles entering and exiting the gate
- ▶ Camera overview brings focuses on either the vehicle or the driver
- ▶ License plate recognition database are processed and stored in Microsoft Access Database for easy and multiple applications
- ▶ Multiple recognition technology is applied until a recognition result is reached
- ▶ Alarm will be triggered when an unauthorized or unrecognizable vehicle is spotted
- ▶ Picture-in-Picture window provides camera overview and the last recognized image
- ▶ Video or AVI file is used as recognition input source
- ▶ Digital watermark technology is applied to verify authenticity of video clips
- ▶ Text overlay displays license plate numbers on recorded video image
- ▶ Activate recognition by sensor triggers, video motion detection or Hot Key
- ▶ Recognition result triggers I/O Relay or user-defined application
- ▶ Recognize and display license plate image registered in database
- ▶ Retrievable vehicle entry and exit records by license plate number
- ▶ JPEG format support allows approximately 2 million JPEG images to be saved in a 160 GB HDD
- ▶ Auto recycle for image storage and database backup



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NET CARD



NET I/O CARD

The NET Card is an interface converter that can be installed inside a PC. The NET / IO Card add 4 digital inputs, and 4 relay outputs.

Specifications		
RS-232 to PC	RJ-11 to DB9 female cable	
RS-485 +	Connect to IO / PT-811 RS-485+ or Pelco, Ademco, Lilin Dome camera RS-485+	
RS-485 -	Connect to IO / PT-811 RS-485 - or Pelco, Ademco, Lilin Dome camera RS-485 -	
Input	Input	4
	Input Signal	5V DC (floating) / TTL
	High State	5V
	Low State	0V
Output	Relay Output	4
	Relay Status	Normal Open
	Relay Capacitance	2A / 30V DC; 0.25A / 125V (250V) AC
	Relay ON Time	4ms
	Relay Off Time	4ms
Communication	RS-485, 1,200~19,200 bps	
DC In	DC 5V, 1A	
Environmental Conditions	Operation Temperature	0~50 degree C
	Humidity	5%~95% (non-condensing)
Compatible Models	NET Card: all models	
	NET/IO Card: All Comm Port Shipped DVR's	



I / O USB BOX

The I/O USB Box provides 16 inputs and 16 relay outputs. It supports both DC and AC output voltages, and provides a USB port as well.

Specifications

Input	Input	16		
	Input Signal	9-30V AC/DC		
Output	Relay Output	16		
	Relay Status	Normal Open		
	Relay Capacitance	USB Connection	30V DC, 3A	
		RS-485 Connection	125 / 250V AC, 3A 30V DC, 3A	
DC IN	DC 12V, 1A			
Address	1-15			
Environmental Conditions	0~50 degree C , 5%~95% (non-condensing)			
Dimensions	180 (W) x 27 (H) x 183 (D) mm			



RELAY MODULE

The Relay is a relay output module with 8-point relay output interface. This device is to actually control your alarm or PTZ cameras and connects to the control source of -IO output.

Specifications

Relay Output	RL1~RL8
Relay Control Source	+5V, DO1~DO8 connect Output of -IO
Relay Status	Normal Open
Relay Capacitance	6A / 250V AC; 10A / 125V AC; 5A / 28V DC
Relay On Time	8ms
Relay Off Time	5ms
Dimensions	202 (W) x 39 (H) x 166 (D) mm

CASE STUDY

▶ Pay-for-Park Lots

Installation: COMM PORT LPR + Ticket In Ticket Out System



Many parking lots are using COMM PORT LPR system to integrate with their parking lot ticket-in/ticket-out system. When a vehicle passes the entrance, the COMM PORT LPR captures and outputs license plate numbers to the ticketing system, which then prints ticket with license plate numbers on. If a driver loses his ticket, the COMM PORT LPR system and the ticketing system can easily retrieve the parking time log by license plate number. The parking lot solution is especially convenient for monthly rental customers. Vehicles with parking certificates will be allowed the passage to the parking lot without the trouble of getting tickets or checking in at the parking attendant. The improved video coverage and the license plate recognition database can expedite dispute resolution in case of customer claim.

▶ Hospital

Installation: COMM PORT LPR + RFID reader



COMM PORT LPR system is helping one of the largest and successful general hospitals in manage their parking lot, improve management, and reduce operational costs. This hospital uses COMM PORT LPR system for 4 lanes and a Central Monitoring Station to control 4 entries and 4 exits of the parking lot. The system is used to automatically allow entry of authorized staff, whose RFID card numbers match the license plate numbers in the database. The COMM PORT LPR provides the hospital with the ability to access all time logs and video data remotely from the office, save maintenance cost, and enhance security at the same time.

▶ Office Building Parking Lot

Installation: COMM PORT LPR



A well-known international airlines company uses COMM PORT LPR system to manage their corporate building entrance. The COMM PORT LPR provides a security solution that can help the company monitor the entrance where more than 1000 visitors and staff vehicles access to everyday. All vehicles license plate numbers are saved in the COMM PORT LPR database in advance. The occupant of a visitor's car must register at the parking attendant before entering. Once vehicles enter or leave, the system will retrieve plate numbers from the database and automatically allow access to the lot entry points. The time log of cars entering and leaving will be stored in a database for central management. After introducing the COMM PORT LPR system, this company has saved tremendous costs on night shift expense, while enhancing their corporate building security.

▶ Staff Parking Lot

Installation: COMM PORT LPR + DVR



Numerous factories adopt COMM PORT DVR and COMM PORT LPR systems to monitor the surroundings and the entrance security. A big factory lot accommodates about 1000 vehicles parking everyday. The DVR-LPR solution has been integrated well with all security equipments already in place. Not only can it save cost, but its Center Monitoring function has created a seamless surveillance for the factories.

▶ Airport Parking Lot



Installation: COMM PORT LPR

After careful research and consulting with distributors in Europe, a famous East Europe international airport employed COMM PORT LPR system to integrate with their Control Center at the airport parking lot. It is used to monitor all authorized staff vehicles or visitors cars at the parking space, and also to efficiently manage all lease parking spaces.

▶ Apartment/Condo



Installation: COMM PORT LPR

Many apartments, condominiums and multifamily housing are at great risk of parking lot security, in part because unauthorized vehicles are using fake copies of identity cards or counterfeit remote control to intrude the parking lot. This illegal intrusion issue has caused management problem and led to poorer living quality.

COMM PORT LPR system is a reliable and economical solution that can effectively help apartments and condos solve the problem. The apartments and condos managers need to register all approved plate numbers in the system database in advance. It is suggested that only adjacent entry points or a single gate should be linked to the system and accessible to registered vehicles. The COMM PORT LPR System can record vehicles' license numbers, drivers' faces, and entry and exit time, all major deterrents to criminals and intrusions; it can assist police investigation as well.

▶ Law Enforcement



Installation: COMM PORT LPR

COMM PORT LPR system is not only used in commercial parking management but also in law enforcement to detect stolen vehicles. traffic police have successfully utilized COMM PORT LPR systems for stolen car search. To correlate COMM PORT LPR with car search, the police need to build or import a stolen car database into the COMM PORT LPR system first.

Anytime, anywhere when a car passes through road sections where cameras are installed, the license plate number will be captured and transmitted to the LPR system to recognize and compare with the database immediately. If the number is verified as a stolen car, COMM PORT LPR system could instantly notify the police around to trace the stolen car and hunt down the criminal.

▶ Schools



Installation: COMM PORT LPR+ -DVR+ Control Center

Due to the shortage of parking place, many schools have leased the parking space to the public after the school hours. In order to maintain parking lot safety, many schools adopt's total surveillance solution using COMM PORT LPR, DVR, and Control Center V2. The video surveillance solution provides schools with the ability to remotely monitor lot entry and exit points, allows access for cars with registered plate numbers, and limits entrance to unauthorized cars. Some schools also utilize central monitoring service to ensure lots under remote surveillance 24/7 and provide a secure environment for lessee.

▶ **Motels**

Installation: COMM PORT LPR



Motel managers need efficient and economical solutions to maintain ongoing security operation, while keeping security management in an unobtrusive manner to customers.

Many motels in have installed COMM PORT LPR systems as a method to thwart so-called unwelcome customers, other than general surveillance purpose. These motels have unwelcome customer database which even include the customers car license plate numbers in the LPR system. When a car of unwelcome guest gets near to motel gate, the system could send audio alarms to notify the parking attendants of the approach of suspicious car, and they could turn down customers in blacklist and limit their access to motels.

▶ **Transportation**

Installation: COMM PORT LPR



A famous forwarder in East Europe is using COMM PORT LPR to manage vehicle flow at the logistics center entrances. 16 cameras were connected to the LPR system to cover every inch of the center field. Traffic control in logistics center has been greatly improved ever since.

Several European truck companies install COMM PORT LPR in logistic stations to monitor truck entry and exit. Time log of truck entry and exit from each station are logged in the COMM PORT LPR to provide company managers with a better quality management method