



SUBSCRIPTION BASED WITH
ANPR
TICKET DISPENSER
TICKET READER
INFORMATION DISPLAYS
PARKING SPOT SIGNS



OPEN PARK

INTEGRATED PARKING AND TOLLING SYSTEM



OPEN PARK OpenPark is an integrated Parking Management, tolling and vehicle access solution. It integrates several sensors according to customer site needs including ANPR cameras, RFID readers, Barcode ticket dispenser and reader using secure QR-Code. It also includes a complete POS system, shift management, cash accounting and collection, ticket printing manually and through ticket dispenser and much more.

Every vehicle entry/exit record is documented with a snapshot and or Video clip with time stamp, relevant ticket or RFID card data used in the event.

Automatic
Number Plate
Recognition that
works worldwide

Free subscription
lane, ticket
dispenser for
non-members,
ticket readers, e-
payment with
NFC

Centralized
management
can work with
unlimited number
of entry and exit
lanes

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OPEN PARK OVERVIEW

INTRODUCTION

The Parking LPR camera takes a series of pictures of the vehicle and the Open Park ANPR module reads its license plate. Both the pictures and the read plate number are then given to Open Park Access server for evaluation based on the preset access criteria in Open Park's database.

The software then does or does not open the gate or barrier for the vehicle to pass through. An option of manual gate opening from the controller web interface is also available and would log who and when did the manual override.

Non-members can then pay in either cash, using a pre-paid NFC card, or long range RFID.



OpenPark Home Live Monitor Access Control Reporting Demo

Reporting And Statistics

From Date :- 2017/03/01 00:47 To Date :- 2017/04/16 00:47

Select Camera :- LaneA Plate No :-

Search Export To CSV Export Images

Total Events : 32

Event ID	Plate Number	Transaction Date	Edit	Visitor
2688	د ف ف 4 2 5	04/04/2017 11:59:03		
2687	ع غ ن 7 3 2	04/04/2017 11:58:56		
2686	ص ه د 9 8 5	04/04/2017 11:58:49		
2685	س ن 6 5 7 9	04/04/2017 11:58:41		
2684	ق ي و 1 8 7	04/04/2017 11:58:33		
2683	ص د 6 2 7 1	04/04/2017 11:58:25		
2682	د د س 7 8 2	04/04/2017 11:58:17		
2681	ل ف أ 7 2 3	04/04/2017 11:58:09		

KEY FEATURES

- Automated vehicle entry of cars with registered license plates or using RFID tag whether short range or long range.
- Automatic gate control with option to manually open gate from the controller web interface.
- Full auditing trail of all vehicles; keeping records of entry and exit times of each vehicle, storing all incoming/outgoing car images, plate numbers, tag reads, and time stamps, keeping records of traffic, and each payment made.
- Blacklisted vehicle alarm, warning when an unwanted car appears at the gate.
- User and administrator access rights.
- Unlimited number of gates can be managed from one central server over TCP/IP
- Multi-language Graphical User Interface (GUI) in a customizable layout.
- ANPR engine designed for Egypt license plates by Egyptian researchers and software is registered by ITIDA IPR office that means local warranty and on-going support and continuous updates.
- Open integration for any third party software or management system.

MAIN BENEFITS

- Faster vehicle entry/exit
- Providing safer and more secure car parking areas, reducing crime
- Providing statistical analysis and parking revenue calculations through advanced reporting capabilities
- Easy installation architecture, plug & play
- Centralizing registration through web based portal allowing for self-service subscription and online payment.
- Allows for integration of ANPR with prepaid cards via NFC, barcode ticket printing as well as manual payment.
- Simplifying registration of all vehicles for security purpose.
- Easy setup of temporary access to guest vehicles and availability of online registration of visitors.
- The Mobile POS interface will allow for fast exit especially if the plate number was not correctly read at the entry gate. It will also allow for in parking inventory for cars spending the night at the parking lot or staying at unauthorized locations.

OPENPARK ENTRY / EXIT STATIONS



Order Information

- ES-01: Barcode ticket printer, Audio intercom
- ES-02: Barcode ticket printer and checker, Audio intercom
- ES-03: Barcode ticket checker, intercom
- ES-0x-RF: Integrated RFID reader
- ES-0x-RF-M: Mifare
- ES-0x-RF-L: Long range

Note: Different colors available to match the used parking barrier color

Power Supply	AC 220V±10%, 50/60HZ, Max.1.5A
Operating temperature	-10°C-55°C
Humidity:	10%~95%
Reader type:	EM-ID, Mifare-IC, EPC Gen2, Barcode ticket printer and reader
RFID Reading options:	Mifare 5-10cm Passive long range 3-12m
Printing and verifying	<1s
LED Display:	Resolution64×32, active size 320mm×160mm
Intelligent Control Unit:	<ul style="list-style-type: none"> • Intel® architecture • 4GB DDR4 2133 SO-DIMM / 128GB SSD • 1x Line-out / Mic-in • Interfaces 1LAN, 4xUSB, 1xRS-232
Intercom	IP based audio intercom available with client software for the security operator
Ticket printer / checker	<ul style="list-style-type: none"> • 1 D & 2D Barcode Print & Read capability Aztec, Data Matrix, PDF417, QRCODE • USB interface with control unit • Ticket printing with automatic cutter up to 1 Million cut • Barcode ticket reader integrated

OPENPARK FUNCTION LIST

Basic functionality	<p>Automated gate control: number plate is read when a vehicle arrives to the checkpoint number plate is evaluated from database blacklist and whitelist management. It can be verified against any open interface external access control server.</p> <p>In case of using barcode or RFID an entry station is used and snapshot triggering is driven by entry station.</p>
Parking ticket support	The system offers a parking fee calculation when a vehicle leaves the area or as a flat rate at entry or exit
Parking membership support	Membership can be provided through RFID cards for long periods like month or more and also printed barcode tickets can be used for less periods like one week.
Number of gates	Each gate needs either one OpenPark camera or OpenPark camera and entry / exit station. Unlimited gates can be connected to one central Open Park server.
Supported plate types	Number plate recognition for different countries and character types are supported: all Latin, Arabic. Customized high accuracy performance is guaranteed for Egypt license plates.
User management	Different user privileges can be set: admin, operator, collector
Supported languages	Default interface language: Arabic, English and French.
Triggering	When an external device (e.g. loop or photocell or entry station) detects the arrival of a vehicle, it sends a signal through the camera to the system that executes the entire access control procedure
Permission management	Number plates can be categorized in Blacklist and whitelist. Warning is raised upon unauthorized activity and barrier is open in case of authorized vehicle.
Logging	Every event is archived in local MySQL database on the OpenPark entry station or inside the OpenPark camera. Every unrecognized plate will be stored with the time stamp and image in the local database. The operator will have a chance to correct the plate number manually.
Data export/import	csv import for Blacklists and whitelists, members database, pre-paid accounts
Architecture	OpenPark server runs on a central management server to control OpenPark entry stations connected over TCP/IP and management interfaces and Point of Sale are provided as web based applications that can run on thin client or any Windows, Apple or even Android device.

OPENPARKCAM LICENSE PLATE CAMERA

Fully digital license plate recognition IP camera, created for parking applications and operations. As a compact camera, the OpenParkCAM is comprised of a resistant single sealed waterproof enclosure with an IP66 rating. The camera includes a synchronized infra-red (IR) LED illumination unit providing clear and sharp images during day and night. Its technical features include pan tilt, wall mounted brackets with hidden cabling, auto day & night switching, barrier control functions (trigger in/out) and many more. Access control (entry & exit) to restricted car park or vehicle storage areas, maximum stay car park management, pay-on-exit (POE) car park management, pay-on-foot (POF) car park management and security control or monitoring application areas can all benefit from the progressive capabilities of the OpenPark camera. The OpenParkCam can be integrated inside the OpenPark Entry / Exit station.



KEY FEATURES

- Built-in auto-setup functions to help easy integration and configuration
- IP camera with embedded web server, remote access from web browser
- Automatic brightness control optimized for license plate recognition
- IR LED illumination synchronized with the image capturing and control
- Integrated Quad core CPU for onboard LPR processing

MAIN BENEFITS

- Offering higher OCR accuracy in license plate recognition based systems
- Installing quickly on-site: the camera is connected directly with the barrier control and trigger
- Installing easily, P&P, auto set-up wizard for easy configuration

OpenPark Gate controller

OpenPark Gate controller to integrate License plate recognition camera with OpenPark Gate barrier to open for registered cars and control a LED traffic sign with Green Arrow or Red Cross. It also provides remote control through software interface from web back-office or from Android Mobile app.



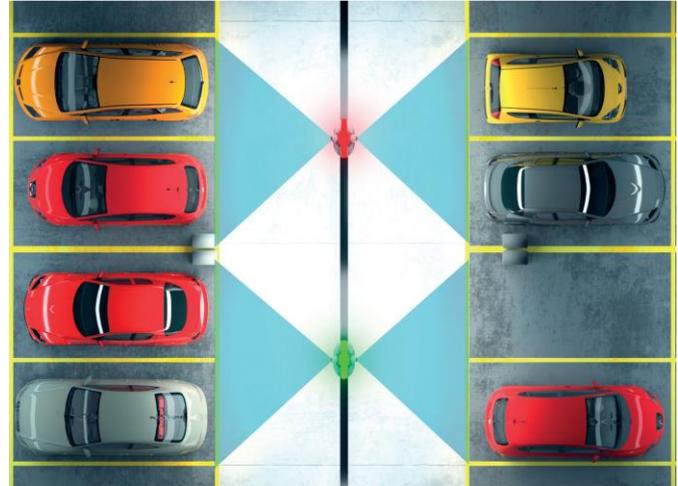
- Intel® Apollo Lake SoC Processors
- 1x DDR3L SO-DIMM
- 1x HDMI for display output
- 2x GbE LAN for Ethernet
- 2x USB 3.0, 2x USB 2.0 for USB device connection
- 1x RS232/422/485 for serial device connection
- 1x SATA 3.0 HDD / SSD for storage
- 1x M.2 Key A for Wi-Fi / Bluetooth expansion

SYSTEM	PROCESSOR	Intel® Celeron® N3350 (Dual Core, 2M Cache, up to 2.4 GHz, FCBGA1296, 6 W TDP) Intel® Pentium® N4200 (Quad Core, 2M Cache, up to 2.5 GHz, FCBGA1296, 6 W TDP) Intel® Atom® x5-E3930 (Dual Core, 2M Cache, up to 1.80 GHz, FCBGA1296, 6.5 W TDP) Intel® Atom® x5-E3940 (Quad Core, 2M Cache, up to 1.80 GHz, FCBGA1296, 9.5 W TDP) Intel® Atom® x7-E3950 (Quad Core, 2M Cache, up to 2.00 GHz, FCBGA1296, 12 W TDP) 1x DDR3L 1867 SO-DIMM up to 8 GByte
VIDEO	MEMORY	Intel® HD Graphics 505 (for models w/ x7-E3950, N4200) Intel® HD Graphics 500 (for models w/ N3350, x5-E3930 / -E3940) 1x HDMI 1.4 (4096 x 2160 @ 24 Hz, on rear)
NETWORK CONNECTION	GRAPHICS	2x GbE LAN (RJ45 on rear, Intel® I210-AT, Intel® I211-AT)
PERIPHERAL CONNECTION	DISPLAY INTERFACE	2x USB 3.0 (Type A on rear) 2x USB 2.0 (Type A on rear) 1x RS232/422/485 (DB9 on rear)
STORAGE & EXPANSION	ETHERNET	1x 2.5" SATA 3.0 HDD / SSD 1x M.2 Key A (Type 22x32 for Wi-Fi+BT)
POWER	USB	2-pin Phoenix Connector (on rear) DC 12 V
FIRMWARE	SERIAL PORT	BIOS WATCHDOG H/W MONITOR REAL TIME CLOCK TPM
SYSTEM CONTROL & MONITORING	CONNECTOR	AMI uEFI BIOS w/ 128 Mb SPI Flash Programmable WDT to generate system reset event Voltages, Temperatures Processor Integrated RTC Optional (Infineon SLB 9665 TPM 2.0)
COOLING	INPUT VOLTAGE	1x Power Switch (on rear) 1x Power LED (on rear) 1x Storage LED (on rear)
SOFTWARE	FAN	1x System Fan
MECHANICAL	OS SUPPORT	Windows 10, Linux
ENVIRONMENTAL	CONSTRUCTION	Metal Chassis 145 mm x 94 mm x 60 mm / 5.71" x 3.70" x 2.36" 700 g / 1.54 lb DIN Rail Mount
CERTIFICATION	DIMENSION (W x D x H)	OPERATION TEMPERATURE STORAGE TEMPERATURE HUMIDITY
	WEIGHT	0 °C - 50 °C / 32 °F - 122 °F (Standard) -20 °C - 80 °C / -4 °F - 176 °F (Standard)
	MOUNTING	0% - 95%
	ENVIRONMENTAL	EMC & SAFETY
	OPERATION TEMPERATURE	CE, FCC Class B
	STORAGE TEMPERATURE	
	HUMIDITY	

SMART PARKING GUIDANCE SYSTEM

OpenPark Eye Guidance System

- Each unit contains one LED and 2 cameras to monitor 4 parking spots, 2 at each side.
- Provides:
 - 24x7 video recording
 - Antitheft alarm
 - Incorrect parking detection
 - Accident detection



- Simple installation in the middle of the lane.
- Simple ring/star architecture for saving on Ethernet ports
- Yet providing high speed video monitoring
- Provides information about space availability for the Open Park server and over cloud to Open Park mobile users.

OpenPark-Ultra Guidance System

The main function our parking guidance system (PGS) has is that helping the driver find free parking space on different levels and sectors quickly. Using LED display and LED indicator to show the real-time parking information (free/occupied parking space) to the vehicle owners. Moreover, the owners or operators can monitor the real time parking information as well as collect and analyze statistic data about utilization of each car park space.

What are the benefits of Parking Guidance System?

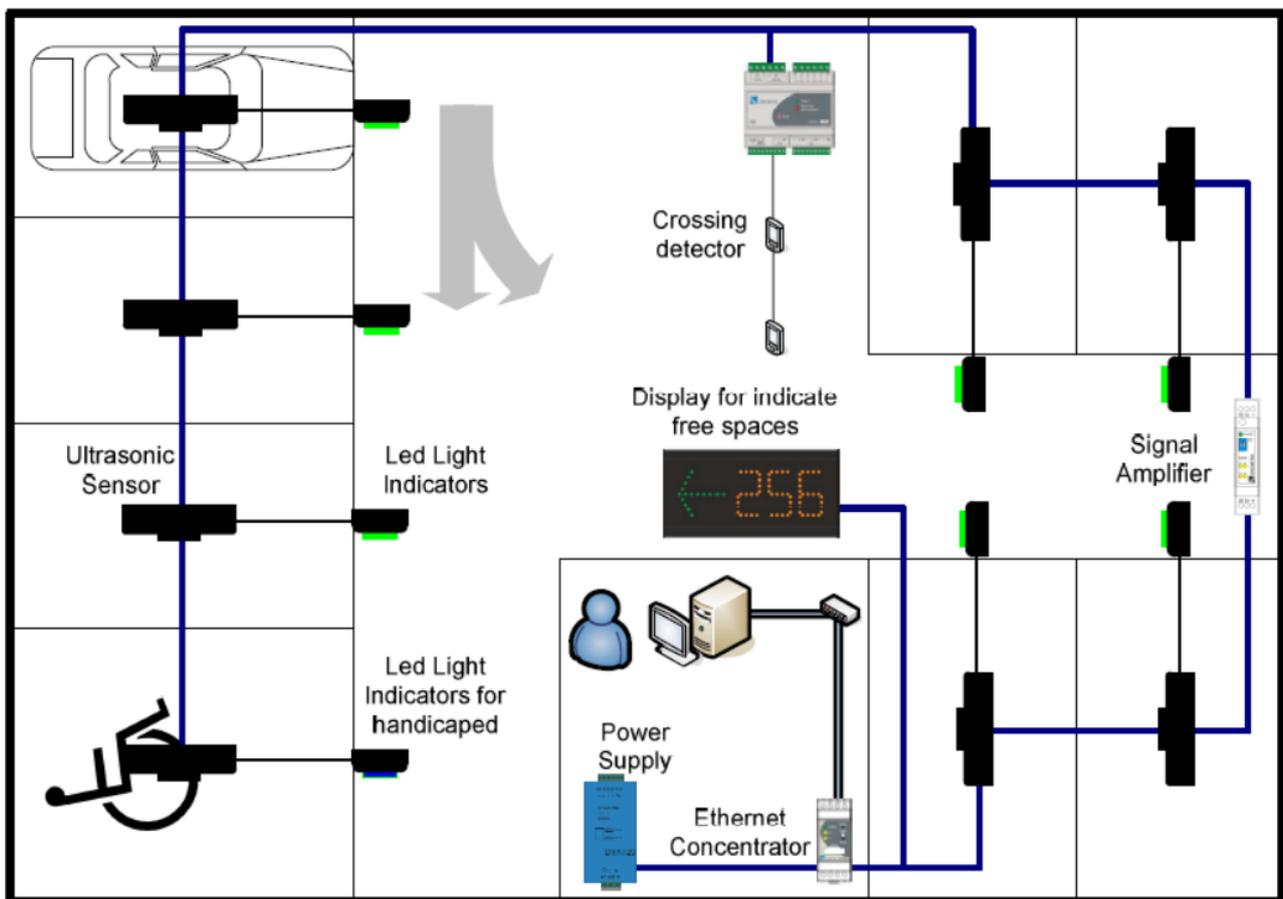
OPGS have been proven to cut the customer's time-to-park in half and result in a 3-5% rise in visits. Simply put, the easier it is for customers to visit, the more customers will want to return again and again.

- Travelers: Reduced time looking for parking, and reduced frustration.

- Venue Operators: Increase in patronage, and customer satisfaction.
- Parking Operators: Increased space occupancy, and increased revenue.
- Environmental: Reduced air pollution, reduced congestion, reduced illegal parking.

PGS Key Components:

- CCU: Central Control System
- ZCU: Zone Control System
- UD: Ultrasonic Detector
- LED Indicator: Red/Green Led Indicator
- LED screen: Outdoor/Indoor LED screen



OPEN-KIOSK SELF-SERVICE STATION



Open-Kiosk is used in several applications in with specific peripherals suitable for each application:

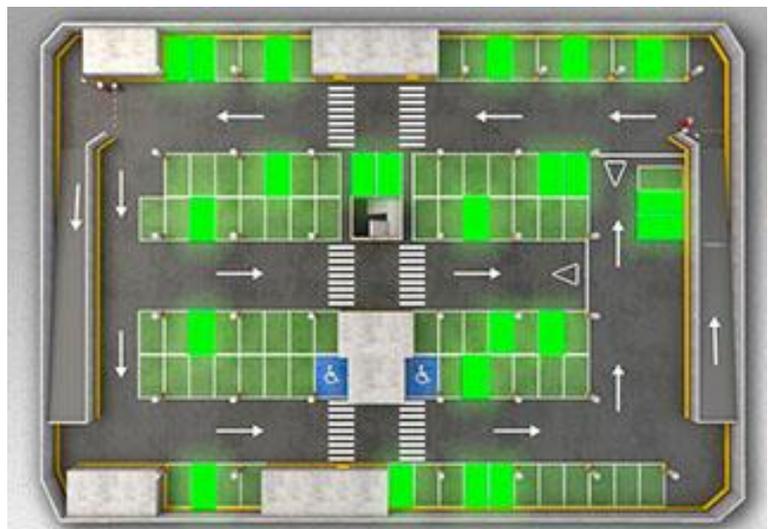
Open-Pay: Our Parking ticket pay station where the customer can scan his parking ticket and pay with his bank credit card or use an electronic voucher or pay with his mobile wallet.

Mode number: PS-01-RFM-CC

Find-My-Car: It is used in conjunction with our camera based parking guidance system "OpenPark Eye". The customer can enter his license plate number and the system would show the number of his parking spot. A map can also be displayed to show the location of that spot.

Model number: FC-01-RFM-CC

OpenPark Guidance Management Software with map views, surveillance integration and open interfaces for BMS and SCADA systems



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