



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



OPEN PARK

integrated parking and Tolling system



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 mobile application.

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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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 supports all EU countries and Middle East Arabic plates including Egypt with 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 Station



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-P: Proximity
- ES-0x-RF-M: Mifare
- ES-0x-RF-L: Long range
- ES-0x-V: Video intercom
- EGC-01: Entry gate controller with barrier control
- EGC-02: Entry gate controller with LPR CPU

Power Supply	AC 220V±10%, 50/60HZ, Max.1.5A
Operating temperature	-10°C-70°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® or ARM architecture • 4GB DDR4 / 64GB 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 cuts • 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	<p>The system offers a parking fee calculation when a vehicle leaves the area or as a flat rate at entry or exit</p>
Parking membership support	<p>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.</p>
Number of gates	<p>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.</p>
Supported plate types	<p>Number plate recognition for different countries and character types are supported: all Latin, Arabic. Customized high accuracy performance is guaranteed for Egypt license plates.</p>
User management	<p>Different user privileges can be set admin, operator, collector</p>
Supported languages	<p>Default interface language: Arabic, English and French.</p>
Triggering	<p>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</p>
Permission management	<p>Number plates can be categorized in Blacklist and whitelist. Warning is raised upon unauthorized activity and barrier is open in case of authorized vehicle.</p>
Logging	<p>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.</p>
Data export/import	<p>csv import for Blacklists and whitelists, members database, pre-paid accounts</p>
Architecture	<p>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.</p>



OpenPark Gate controller

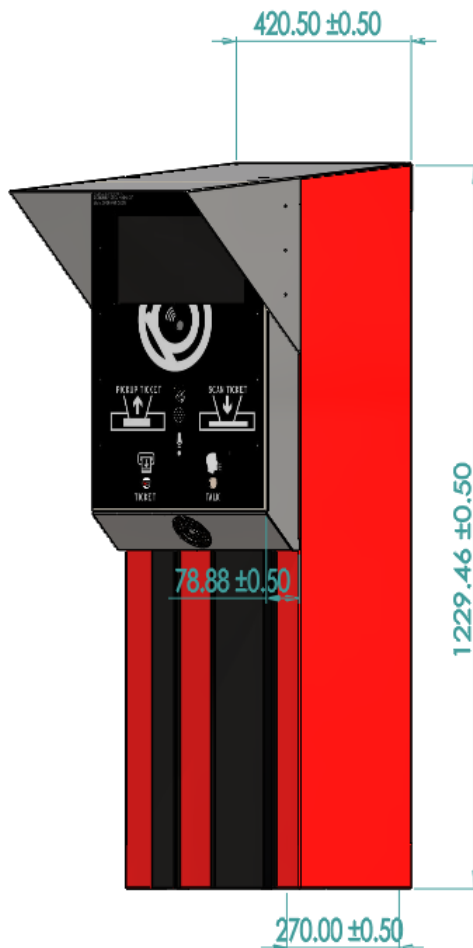
OpenPark Gate controller to integrate License plate recognition camera with OpenPark Gate barrier to open for registered cars and control a LED traffic sign with Green Arrow or Red Cross. It also provides remote control through software interface from web back-office or from Mobile app. It is integrated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

- 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



The OGC is integrated as an option for the Entry or Exit Terminal. In case LPR is required (OGC-002) If not LPR is required, the OGC-01 is only required with integrated barrier control function

Entry / Exit Station Specifications



- Time and date display.
- Voice prompt.
- QR code ticket printing and scanning.
- Removable ticket tray with capacity of 1000 fan-folded tickets.
- Online and offline operation with server synchronization through TCP/IP
- Available communication interfaces: Ethernet port, WIIF integrated module, USB, RS-232
- Battery backup for real-time clock.
- Thermostatically controlled heater/ventilation fan with on/off/auto switch.
- Operating temp -10 deg C to 70 deg C
- Access control optional support for Mifare RFID (13.5MHz), Proximity cards (125KHz), Long range RFID (UHF EPC Global), QR code printed ticket, anonymous ticket printing for guest through push button, mobile app scanning for gate QWR code through cloud solution or remotely by operator.
- License plate recognition option supported and requires the OGC and LPR engine license
- Multiple ticket option through administration interface according to RFID card or pre-printed ID with QR code.
- Special ticket for valet parking.
- Ticket sensor for low or empty tray
- IP Voice Intercom based on SIP protocol to integrated with any third-party IP telephony or standard based Intercom solution or even with IP integrated radio systems.



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OpenPark Pay-station controller

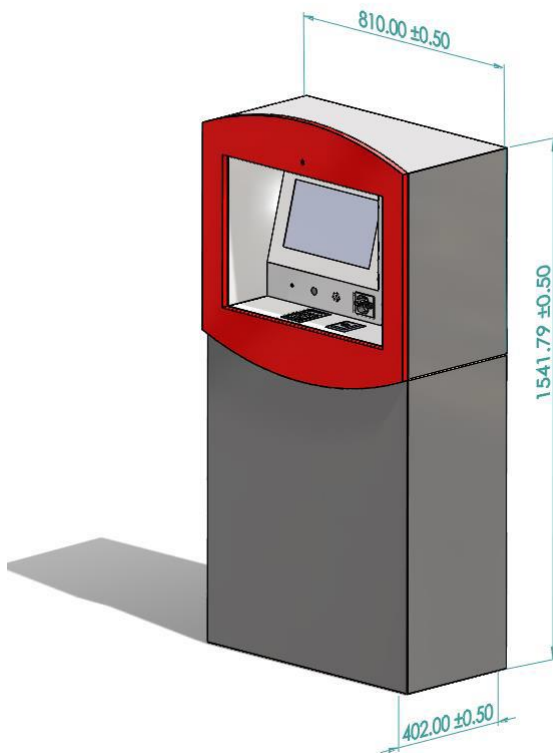
OpenPark Pay-station controller is the industrial touch screen computer integrated within each OpenPark Pay-station running the self-service interface of the OpenPark web-based system. It is integrated into the OpenPark Entry and Exit Terminals through the OpenPark server.

4th Generation Intel® Haswell Core™ / Celeron® Processors (FCPGA946 Socket)
Intel® HM87 / QM87 Express Chipset
Intel® HD Graphics (4600) Processor Graphics
1x VGA, 1x HDMI, 1x DVI-D
2x DDR3L SO-DIMM Sockets up to 16GB
2x mPCIe, 1x SATA
4x USB 3.0, 4x COM, 2x GbE, 1x DIO

The OGC is integrated as an option for the Entry or Exit Terminal. In case LPR is required



OpenPark Pay-station Specifications



- Online communication to remote computer through TCP/IP over wired or wireless communication
- Operating temp -10 deg C to 70 deg C
- Integrate with local hosted or cloud based OpenPark server.
- Compute multiple parking fees based on entry times on ticket from ticket dispenser.
- Compute multiple taxes by percent and fixed amount as per parameters set in OpenPark admin interface.
- Programmable lost ticket function.
- Self-service payment with fee display and accounting.
- Accept payment by cash and credit/debit card (PCI compliant pin pad and chip card reader for Visa and Master)
- Support loyalty cards and memberships.
- Compute change for cash payment.
- Print receipts on demand.
- Remote management from OpenPark server with centralized reports.
- Unlimited ticket types and discount rates.
- Built-in service diagnostics and service mode for maintenance.
- Local log for validation of server-based reporting for cash and ticket events.
- Integrated voice intercom.
- Integrated camera for personal image recording with each transaction.



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OpenGate Barrier

A boom barrier is designed for a range of large opening up to 6m. It is ideal solution for controlling vehicle traffic in parking lots, private entrances, industrial and public uses.

As a manufacturer, we have more than 15-year experiences on designing, producing and installing boom barriers. The result is a superior boom barrier with best after after-sales service.

Quality control is our top priority, so we vigorously test our boom barriers to make sure a longer life span.

With our excellent craftsmanship, nice welding, galvanized and powder coated surface finishing, quiet and smooth during operation, our boom barriers can bring perfect user experience.

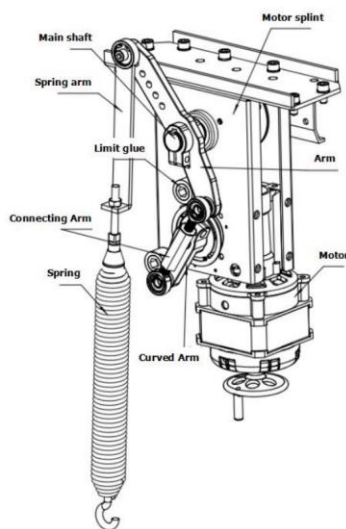
Traffic Boom Barrier for Car Parking OGB-101

- Steady function, sensitive reaction, low noise
- Opening time 1.5 sec – 6 sec programmable
- Highly sensitive limit switch, barrier boom can be instant turn on and off, accurate location.
- Stainless steel or Galvanized sheet housing 1.5 mm thickness
- Working temperature -35 to +75 degree
- Electric motor 120 Watt, up to 1400 rpm
- Arm Length 3m-6m rectangular
- Tested over 5 Million opening cycles
- IP-65 protection level against water and dust
- Ready for OpenPark gate control integration
- Integrated dual loop detector
- Anti-collision function, protecting the passenger cars
- The barrier is provided with remote controller and manual button



The OGC is integrated as an option for the Entry or Exit Terminal. In case LPR is required

OpenPark Pay-station Specifications



Features:

1. High performance motor
2. Ultraviolet-proof surface treatment
3. Modular design
4. Laser cutting body
5. High level waterproof
6. High compatibility
7. Various kinds of color choice
8. Perfect structure design value every detail in the process of manufacturing.
9. Strict inspection system ensures products quality, to protect customers' profit based on low failure rate and low maintenance cost.
10. Prompt and professional after-sales service and technology support



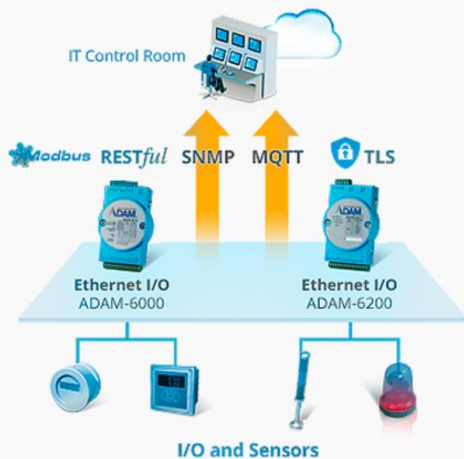
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Remote IO Specifications



Ordering information WISE-4060/LAN

4-ch Digital Input and 4-ch Relay Output IoT
Ethernet I/O Module



General

Protocol	Modbus/TCP, TCP/IP, UDP, HTTP, DHCP, MQTT
Certifications	CE, FCC, RoHS
Connectors	Plug-in screw terminal block (I/O and power)
Data Log	Up to 10000 samples with time stamp
Dimensions (W x H x D)	80 x 89 x 25 mm
Enclosure	PC
LAN	IEEE 802.3u 10/100Base-T(X)
Mounting	DIN 35 rail, Wall, Stack
Power Consumption	2.5 W @ 24 VDC
Watchdog Timer	System (1.6 second) & Communication (programmable)
Web API	RESTful in JSON format
Web Server	HTML5 with JavaScript & CSS3

Environment

Operating Humidity	20 ~ 95% RH (non-condensing)
Operating Temperature	-40 ~ 70°C (-40~158°F)
Storage Humidity	0 ~ 95% RH (non-condensing)
Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)

Relay Output

Insulation Resistance	1 GΩ min. @500 VDC
Isolation between Contact	3,000 Vrms
Maximum Switching	60 operations/minute
Relay off Time (Typ.)	5 ms
Relay on Time (Typ.)	10 ms
Contact Rating	250 VAC @ 5A, 30 VDC @ 3A
Channels	4

Digital Input

Channels	4
Isolation	3,000 Vrms
Logic Level	Dry Contact 0: Open, 1: Close to DI COM; Wet Contact 0: 0 ~ 3 VDC, 1: 10 ~ 30 VDC (3 mA min.)

Communication with IoT Protocols

MQTT

- Actively publish MQTT message with user defined interval
- Shortens downtime with alarm event notification
- Privacy assured with the TLS (Transport Layer Security)
- Simplifies configuration for MQTT using the .Net Utility

SNMP

- Simple way to monitor I/O data on NMS (Network Management System)
- SNMP trap to notify alarm event
- Reduces implementation cost with MIB (Management Information Base) file



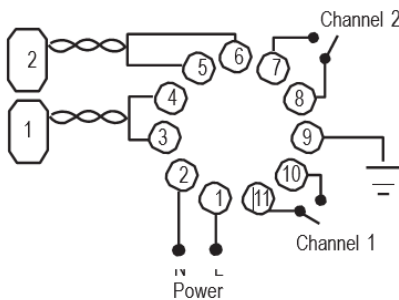
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Dual Channel Vehicle Detectors

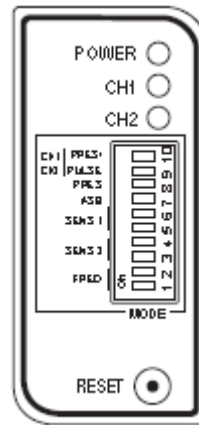
One of the most critical components of the whole vehicle access control system is the inductive loop detector. OpenPark's detectors have been renowned for their reliability and durability for over many years. Dual channel loop detectors are used to identify the presence of vehicles by means of two independent inductive loops buried under the road and can be used in almost any application. OpenPark's Dual channel detectors feature A-B logic and flexibility to eliminate cross-talk. All detectors are CE tested and approved. A compact detector diagnostic unit is available for extracting data from new and existing sites.

PD230 - Vehicle Detector features

- Compact size & elegant styling
- Flexible
- Automatic Sensitivity Boost (ASB)
- A-B Logic
- Fault monitor
- Diagnostic capabilities



PD230



PD230 - Vehicle Detector specifications

Self-tuning range:	20-1000 μ H
Sensitivity:	4-step selectable per channel: High: 0.02% Δ L/L; Medium High: 0.05% Δ L/L; Medium Low: 0.1% Δ L/L; Low: 0.5% Δ L/L
Frequency:	4-step adjustable, 20-70kHz (frequency determined by loop geometry)
Output relays:	1 output relay per channel (fail-safe) Fail secure (factory option)
ASB:	Switch selectable automatic sensitivity boost
Pulse O/P duration:	Approx. 150ms (factory option 250ms)
Presence time:	Selectable: limited or permanent Limited: presence 1 hour for 3% Δ L/L
Protection:	Loop isolation transformer, zener diode clamping on loop inputs and gas discharge tube protection
Environment:	Protection level IP65, Operating temperature from -40 to 8 C
Power supply.:	120V AC +/- 15% 48-60Hz (PD231) 230V AC +/- 15% 48-60Hz (PD232) 12-24V AC/DC +/- 15% (PD234) Crurent : 1.5VA max @ 230V
Output relays:	5A @ 230V AC; N/O contact per channel (fail-safe)

Operating Modes:

1. Presence (CH1) or Pulse (CH1)
2. Presence (CH2) or Pulse (CH2)
3. A to B (CH1) & B to A (CH2), (presence or pulse)
4. Automatic sensitivity boost off/on

Ordering Information

PD231:	Dual channel, 110V AC
PD232:	Dual channel, 230V AC
PD234:	Dual channel, 12-24 V AC/DC



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OpenPark XNO-6120R License plate recognition camera

Roadway License Plate Recognition - with outstanding accuracy

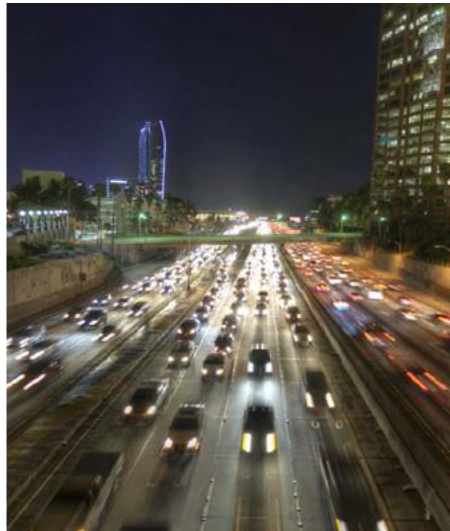
Traffic monitoring and crime prevention using license plates recognition and recording its results. Working as an executive unit control device in a stand-alone entry and exit vehicles access system.

Outstanding recognition accuracy

More than 95% recognition accuracy in any environment or conditions.

High vehicle speed

Guaranteed for vehicles at a maximum speed of up to 80kmph on two lanes at night-time and up to 150 kmph on a single lane during daylight hours.



All European and Middle East countries

Reliably detects number plates from all European countries and Arabic countries in the Middle East.

Easy setup

Simple, clear, and user-friendly installation, setup and adjusting.

Black and White list support

User can define unlimited number plates in black and white list on OpenPark server

XNO-6120R/FNP 2M Network IR Bullet Camera

Key Features

- Max. 2 Megapixel (1920 x 1080) resolution
- 5.2 ~ 62.4mm (Optical 12X) Optical Lens
- Max. 60fps@all resolutions (H.265 / H.264)
- H.265, H.264, MJPEG Codec Supported, Multiple streaming
- Loitering, Directional detection, Fog Detection, Audio detection, Sound Classification, Tampering
- Motion Detection, Handover
- SD / SDHC / SDXC 2 Slot (Max. 512GB)
- IR Viewable Length 70m (229.66ft), IP67 / IP66, NEMA 4X, IK10
- LDC Support (Lens Distortion Correction)
- PoE, 24V AC, 12V DC, Bi-directional audio Support

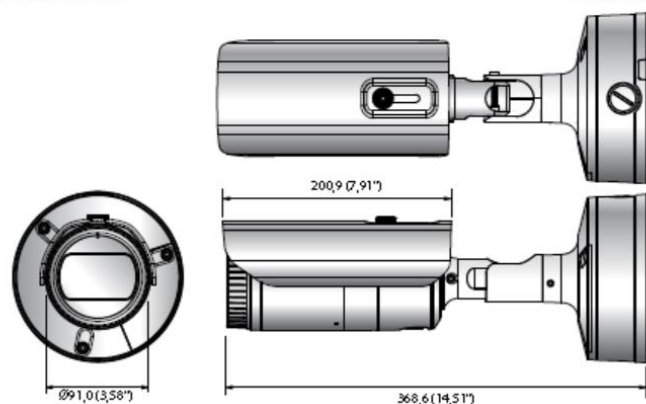
IR LED Viewable Length 20m

Operating Temperature / Humidity
-20°C ~ +55°C / Less than 90% RH



Dimensions

Unit: mm (inch)



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