



THE NEW DRIVING EXPERIENCE PLATFORM



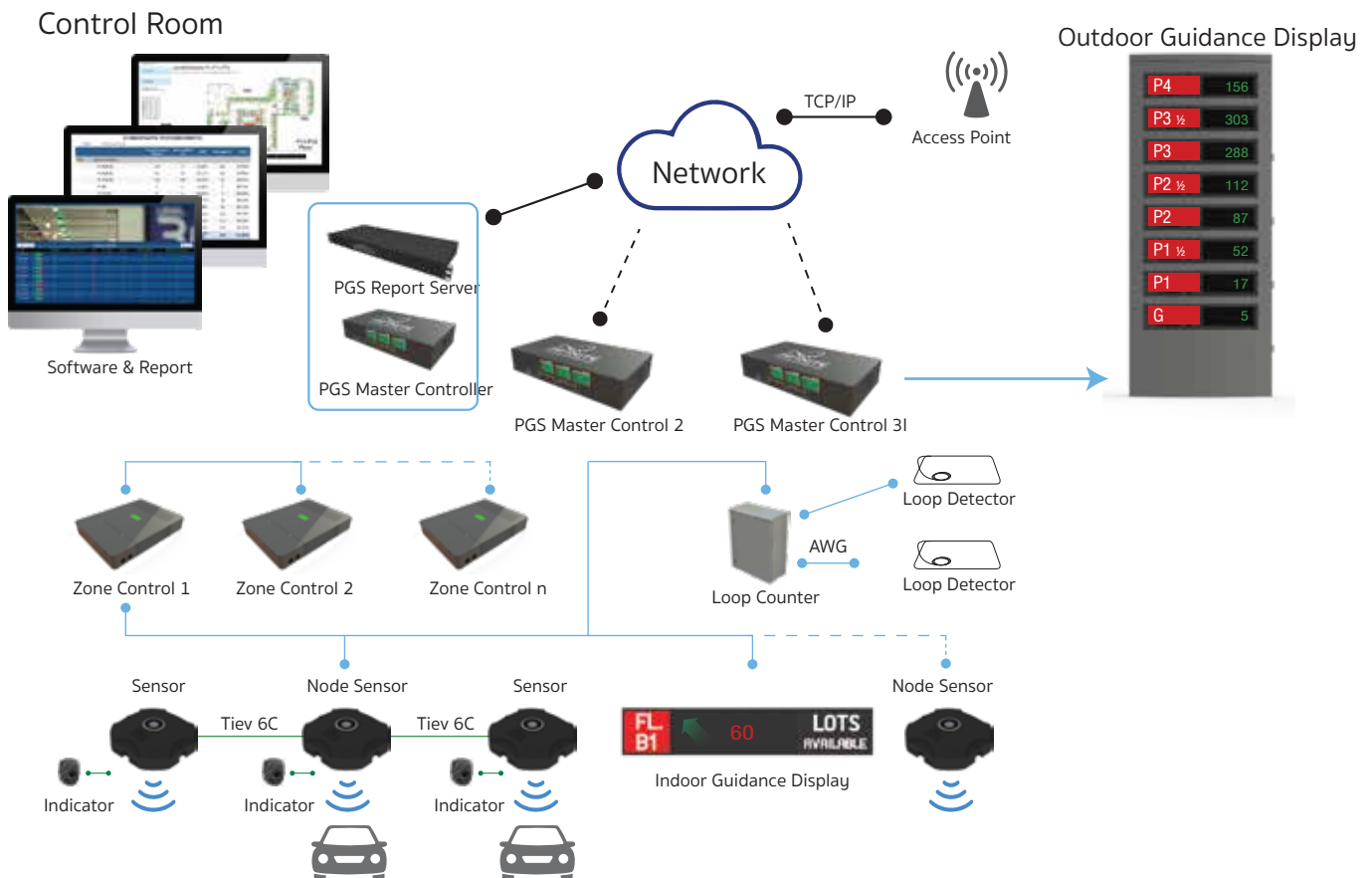
PARKING GUIDANCE SYSTEM

Introduction

Parking Guidance System (PGS) is the system designed to assist drivers in search for vacant parking spot by directing them with traffic signage and the LED light indicating each of the vacant parking slot. The ultimate goal of PGS is to reduce the time it takes to park the vehicle which in turn reduce the congestion.

The system combines traffic monitoring within the surrounding roads for control room operator to manage a better traffic flow and service. We also cares about saving energy by providing "Energy Saving Mode" in case of low parking occupancy

System Diagram



Specification

Main Processor	Micro controller
Parking Sensor	Ultrasonic
Detect Range	4 m.(ceiling to ground)
Maximum Car Spaces	Over 50,000 spaces
Communication	TCP/IP and RS485
Power Supply	110-240 VAC 50/60 Hz
Power Consumption Sensor/ Car Space	760 mW
Power Consumption Indicator/ Car Space	720 mW
Operating Temperature	-30 °C to 85 °C

Sensor

Features

- 1 for every parking slot
- Up to 4m detect range
- Easy Setup
- LED Indicator
- Dip Switch Configuration



Specification

Model	PKG-NS-V3 / PKG-S-V3
Sensor	Ultrasonic
Frequency	40kHz
Beam angle	55° typical
Detect range	Up to 4 m
Detection range setting	Range Tolerance 0.5 m
Permissible error	5 cm
Respond time	20 ms
Communication (ZCU)	RS485
Data transfer rate	9600 bps
Power input	24 VDC
Power consumption	0.76 W
Dimensions	135 mm x 135 mm x 37.62 mm
Shell Material	ABS Plastic
Operating temperature	0 °C to + 70 °C

Indicator



Features

- 1 for every parking slot
- LED Indicator
- 8 pcs RGB LED (4pcs / side)
- Hardware Configuration for LED color
- Green or Blue for available slot (selectable)
- Red or No color for occupied slot (selectable)

Specification	
Model	PKG-I-V3
Visual angle	360°
Visual range	> 50 m
LED luminance (Green)	9600 mcd (1.2 cd x 8 pcs)
LED luminance (Red)	3200 mcd (0.4 cd x 8 pcs)
LED luminance (Blue)	2400 mcd (0.3 cd x 8 pcs)
Power consumption	= 600 mW(Green/Blue), = 720 mW (Red)
Power input	12 VDC
Dimensions	75 mm x 55 mm x 36 mm
Shell Material	ABS Plastic
Operating temperature	0 °C to + 85 °C

Zone Controller

Features

- Support up to 120 Ultrasonic Sensors
- Support Dot Matrix Display
- Available slot counting
- Sensor control module
- LCD Indicator / Check Time, device address and online status
- Dip Switch Configuration
- Loop Counter Control Module
- Able to work without Master Control



Specification

Model	ZCU-V3
Communication	RS485
Data Transfer rate	9600 bps
Sensor Support	Up to 120
Display Support	Up to 8
Loop Counter Support	Up to 24
Power supply	110 to 240 VAC 50/60 Hz
Power consumption	ZCU 2 W / Load 340 w
Dimensions	300 mm x 395 mm x 61.2 mm
Shell Material	Iron
Operating temperature	0 °C to 85 °C

Master Controller

Features

- Rack mountable
- Support up to 32 Zone Control Units (B-Controller)
- Support more than 3000 parking slots and can be expanded to more than 9000 parking slots
- Support more than 300 indoor guidance displays
- Connect to network
- Verify network connection
- LCD Status Indicator
- Support master-slave connection
- Connect with other PGS Master Controller



Specification

Model	PKG-MCU-3LCD-I
Communication	RS485, UDP
Data Transfer rate	9600 bps
Support Zone Controller	32
Power supply	110 to 240 VAC 50/60 Hz
Power consumption	6 W
Operating temperature	0 °C to + 85 °C
Dimensions	250 mm x 440 mm x 86.4 mm
Rack Space Require	2u
Shell Material	Iron

Indoor Guidance Display

Features

- 3 - color LED (Dot matrix : 16 x 48 dots)
- Connect with Zone Control or bigger
- Display available slots , numeric and alphabet "FULL"
- Display direction (Moving Arrow)
- Backlit Display



Specification

Model	PKG-DP-3DG-V3/PKG-DP-6DG-V3
Communication	RS485
Data transfer rate	9600 bps
Luminance	250 cd/m ² R=218 cd, G=690 cd
Power input	24 VDC
Power consumption	6W/12W
Dimensions	15 cm x 80 cm x 6 cm / 15 cm x 145 cm x 6 cm
Material	Iron
Operating temperature	0 °C to + 85 °C

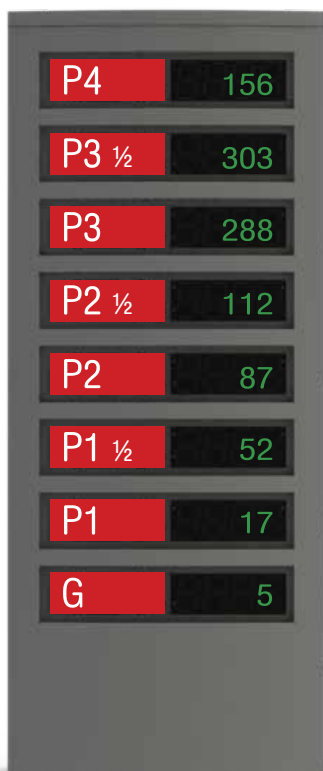
Outdoor Guidance Display

Features

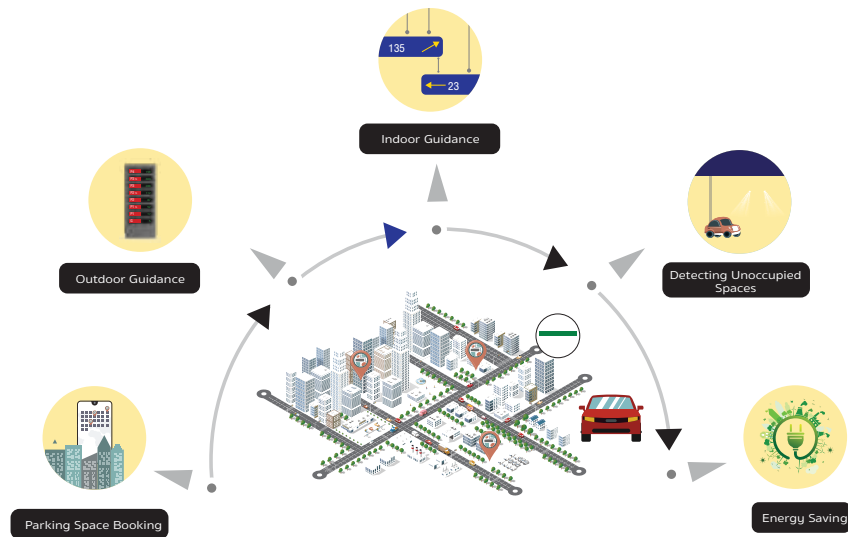
- LED 7 Segment
- 4 digits
- Number's size height up to 20 cm
- Display number of available parking slots and "FULL" in Red or Green
- Backlit Display and Design for Outdoor

Specification

Model	PKG-DP-VACANT-(N)FL
Communication	RS485
Luminance	1,512 cd
Power supply	110 to 240 VAC 50/60 Hz
Power consumption	20 W/display
Panel size	12 cm x 31.5 cm / Floor
Operating temperature	0 °C to + 70 °C



Key Features



- LED digital signage for available parking lot in front of building, floor and zone
- Smart sensors and controller
- Parking indicator lamp
- Real time management
- Connect to central management system
- Staff authorization
- Member parking management
- Tenant parking management
- Vehicle entrance/exit monitoring
- Parking Guidance System Management
- Full control over Ultrasonic Sensor and Indicator for whole parking area
- Monitoring in both 2D and 3D
- Time schedule management
- Web-based Application
- Statistical Report
- Comparison Report
- Analytical Report
- Staff Performance Indicator
- Parking Area Flow
- Parking Lot Usage
- Member Usage
- Visitor Usage
- etc

Users' Management

- Adding , reducing , updating Users
- Staff authorization Setting

Hardware Setting

- Adding ,reducing the status of sensor & display of each zone
- Zone setting
- Setting the status of the zone display
- Setting the status of each parking lot's sensor
- Power setting according to time schedule eg., weekly or at specific time
- Energy Saving on standby Mode basing on Vehicle detection rate

Parking Guidance Report

Real Time Monitor

- Full control of overall vehicle parking in the building
- Parking Lot status in each floor and its working condition
- Full control of overall vehicle entrance/ Exit Monitoring in both 2D and 3D report
- Available parking lots and parking time duration

Parking Space Data Analysis

Guidance Detail Report

- Available parking lot report
- Statistical report parking by hour
- Daily statistical parking report
- Monthly Statistical parking report

Site References

