

WLRC-PS1



Wireless Surface-Mounted Parking Sensor

WLRC-PS1 is the first IoT smart parking sensor with dual technology detection system, to avoid false sensing. Rugged industrial composite material can withstand up to 5000lb weight. With combination of geomagnetic and redundant sensor simultaneously detects the presence of absents of vehicle to give an accurate result every time. Long range wireless communication makes it easier for indoor or outdoor parking management.

Features & Benefits:

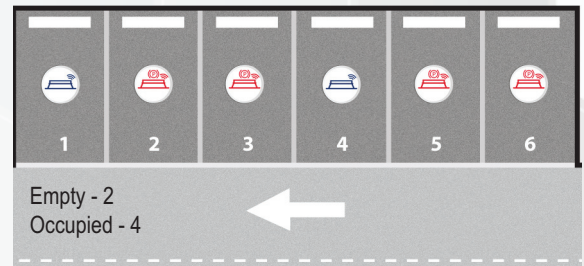
- Surface mounted, easy to install and configure
- Geomagnetic and radar sensor detection
- IP rating: IP67
- Frequency hopping spread spectrum
- Improved power management for longer battery life up to 5 years
- WatchNET IoT platform can be configured for various presence/absent and time based notification



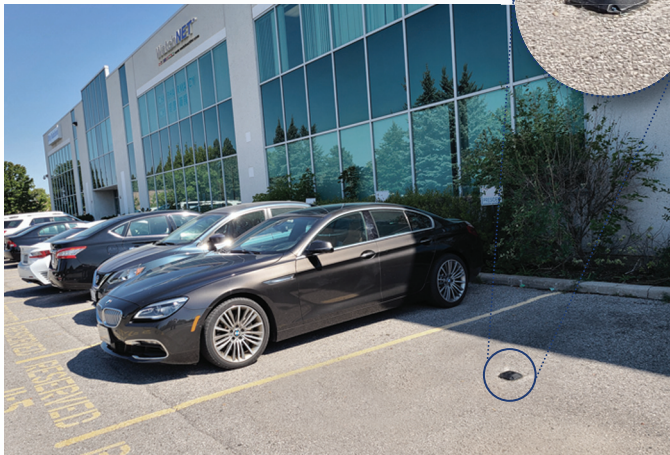
Applications:

- Intelligent parking detection
- Parking lot management
- Parking data analysis
- Remote notification/automation

Parking Lot Management

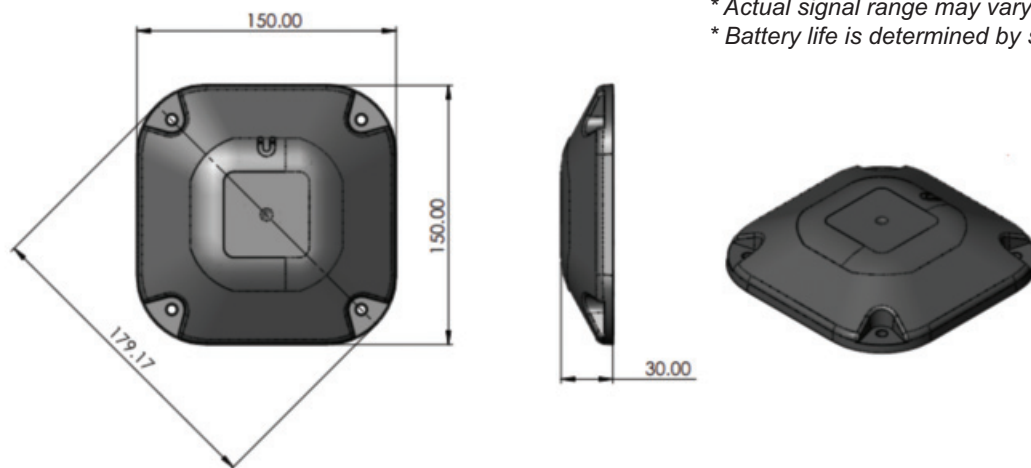


Schematic Diagram:



Technical Specifications

Electrical	
Input Power	2x 3.6V ER18505(3.6V 4000mAh/section) in parallel*
Battery Life Time	5 years (condition: ambient temperature 25°C/77°F, report every 60 minutes, txpower = 20 dBm, LoRa spreading factor SF = 10)
Sleeping Mode	80 uA
Wake up Mode	6.3mA@3.3V
Receiving Current (max)	11mA @3.3V
Transmitting Current (max)	120mA/3.3V
Battery Voltage Measurement Accuracy	±0.1V
Geomagnetic Sensor	
Supply Voltage range	1.71VDC - 3.6VDC
Geomagnetic Sensor Model	LIS2MDL
Communication Method	I2C communication
Geomagnetic Sensor Magnetic Field Detection Range	±50 gauss
Geomagnetic Sensor Package	LGA-12
Radar Sensor	
Supply voltage range	1.71VDC-1.89VDC
Radar sensor model	Acconeer PCR Radar Sensor A111
Working frequency	60GHZ
A111 sensor detection range	6cm-2m / 2.36inch-78.74inch
A111 radar sensor size	5.5 x 5.2 x 0.88 mm/0.22 x 0.20 x 0.035 inch, fcCSP-50 package
Frequency	
TX Power	US: 915 20dbm, CN: 470 19.15dbm
Rx Sensitivity	-136dBm (LoRa, Spreading Factor=12, Bit Rate=293bps) -121dBm (FSK, Frequency deviation=5kHz, Bit Rate=1.2kbps)
Antenna Type	Built-in antenna
Communication Range	Up to 500m/0.310miles, the actual transmission distance depends on the environment*
Data Transfer Rate	0.3kbps~50kbps
Spread Technique	LoRa/FSK
Available Frequency	EU863-870, US902-928, Configured before shipment
Physical	
Environment Temperature Range	-20°C ~ 55°C / -4°F ~ 131°F
Environment Humidity Range	<90%RH (No condensation)
Dimensions	150 x 150 x 30mm / 5.9 x 5.9 x 1.18inch



* Actual signal range may vary depending on the environment.

* Battery life is determined by sensor reporting frequency and other variables.

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