



PNI SENSOR CORPORATION DELIVERS PLACEPOD™ SMART PARKING SOLUTION FOR MUNICIPAL AND PRIVATE PARKING MANAGEMENT

Semtech Leverages PlacePod to Provide Real-Time Occupancy Status of Electric Vehicle Charging Stations at Corporate Headquarters

LAS VEGAS, NV – Consumer Electronics Show – January 3, 2017 – PNI Sensor Corporation, the world’s foremost expert in precision location, motion tracking, and fusion of sensor systems into real-world applications, today announced the introduction of PlacePod™, a high-accuracy, IoT-enabled smart parking sensor. PlacePod is an in-ground or surface-mounted sensor with Semtech LoRa® Technology that provides accurate vehicle detection in parking spaces, 10 years of battery life, and is stable over temperature fluctuations, even in harsh environments.

Research has shown that ongoing cruising for available parking spaces increases traffic congestion and carbon emissions, frustrates drivers, stifles economic opportunities for businesses, and adversely affects other municipal services. Now that technological advancements are available to support IoT devices, such as low-power wide-area networks, Semtech LoRa devices and Wireless RF Technology, and standardized specifications like LoRaWAN™, the biggest challenge to achieving true “smart” parking is accurate and timely vehicle detection.

PNI’s PlacePod is a smart parking sensor that communicates with a gateway with Semtech LoRa Technology to provide accurate real-time parking data. Key features of the PlacePod smart parking sensor include:

- The industry’s most accurate magnetic sensing system for vehicle detection with the combination of PNI’s high-performance magnetic sensor and vehicle detection algorithms that accurately detect the presence or absence of a car in a parking space;
- Sensors and algorithms are finely tuned for ultra-low power consumption and are always-on, providing continuous vehicle detection without missing a parking event;
- Simplified provisioning and management using Bluetooth Low Energy (BLE) for easy wireless setup, calibration, diagnostics, and software updates via mobile or desktop application;

- IoT-enabled with complete LoRaWAN compatibility via the built-in LoRa-based radio for communication with a LoRa-enabled gateway;
- Easy installation, either in-ground or surface-mounted, in a compact, rugged polycarbonate housing.

“An end-to-end smart parking solution is a natural progression for our best-in-class magneto-inductive sensor, which has been embedded in more than 20,000 parking sensors in Shenzhen, China since 2005,” said Becky Oh, President and CEO of PNI Sensor Corporation. “We have applied our experience from these initial implementations, along with our more than 30 years of sensor technology expertise, to develop PlacePod, a smart parking sensor that addresses the most mission-critical aspects of parking management: accurate, real-time vehicle detection and location of available parking spaces.”

Built-In Accuracy and Reliability

The PlacePod smart parking sensor includes PNI’s RM3100 geomagnetic sensor, which is the highest-performance magnetic sensor in its class. The RM3100 incorporates proprietary magneto-inductive technology that has more than 30 times the sensitivity of other magnetic sensors and is stable over temperature fluctuations. Unlike standard magnetic sensors, PNI’s sensor can filter out electromagnetic interference or “noise” such as direct current from overhead power lines, alternating current from utility-related facilities, and transient magnetic signatures from passing traffic. The sensors and algorithms are optimized for always-on, highly-accurate vehicle detection while maintaining ultra-low-power operation. Other parking sensors manage power consumption by putting the parking sensor into “sleep mode” during which they are unable to detect the presence or absence of a vehicle.

Installation at Semtech

PNI’s PlacePod sensors use the LoRa chipset from Semtech Corporation (Nasdaq: SMTC), a leading supplier of analog and mixed-signal semiconductors, to offer long-range and low-power connectivity, underground sensing, extended battery life, and interoperability with a robust ecosystem of IoT products and services. In collaboration with PNI and myDevices, the Internet of Things (IoT) solutions company that “simplifies the connected world,” Semtech installed PlacePod smart parking sensors in the electric vehicle parking spaces for accurate, real-time occupancy status at its corporate headquarters in Camarillo, California, and had the user notification interface live within three hours. The PNI sensors are connected to a private LPWAN deployed on Semtech’s campus. Semtech employees with electric vehicles now receive real-time alerts from myDevices’ IoT software application on the availability of charging-equipped parking spaces. This eliminated the inefficient, manual processes that employees had previously used.

“Semtech is scaling IoT application and network deployments throughout the world with our LoRa Wireless Technology, so it is exciting to bring this next-generation IoT application to the market,” said Mike Wong, Vice President of Marketing for Semtech’s Wireless and Sensing Products Group. “Users can receive real-time alerts when EV charging stations or parking spaces are available, making the charging or parking process much more efficient for electric car drivers and promoting Semtech’s environmentally conscious initiatives.”

"With the launch of myDevices IoT Ready program, hardware manufacturers can easily enable their microcontrollers, gateways, sensors, and other devices for the Internet of Things. Once inside our Cayenne IoT Project Builder, a growing community of over 100,000 developers will have access to a vast library of integrated devices readily available for the creation of their IoT solution,” said Kevin Bromber, CEO of myDevices. “We are excited to add smart parking capabilities with PNI’s innovative PlacePod sensor to our ecosystem and look forward to showcasing its capabilities in combination with our IoT software features such as remote monitoring, alerts, triggers, and data visualization tools in real-time at CES.”

End-to-End PlacePod Smart Parking Solution

PNI’s cloud-based PlacePod Smart Parking solution turns existing parking assets into a more profitable managed resource with real-time occupancy status for all parking spaces, accuracy and reliability from the industry’s highest-performing magnetic sensor, vehicle detection algorithms, and data analytics that enable dynamic pricing, efficient parking enforcement, and simplified network service management. PNI’s parking cloud solution includes a parking management application that serves as a comprehensive dashboard for all parking resources, a mobile installation application for easy provisioning, and a parking API for external communication with any third-party and internal system.

Visit PNI Sensor Corporation at CES 2017

To learn more about the PlacePod smart parking solution during CES, please email sales@pnicorp.com to schedule an appointment.

Pricing and Availability

The PlacePod smart parking solution is available for sampling now, with general availability in Q1 2017. For more information, contact: sales@pnicorp.com.

About PNI Sensor Corporation

With over 30 years of experience, PNI is the world’s foremost expert in precision location, motion tracking, and fusion of sensor systems into real-world applications. PNI’s sensors and algorithms serve as

the cornerstone of successful IoT projects and other mission-critical applications where pinpoint location, accuracy, and low power consumption are essential. Building on decades of patented sensor and algorithm development, PNI offers the industry's highest-performance geomagnetic sensor in its class, location and motion coprocessors, high-performance modules, sensor fusion algorithms, and complete sensor systems. PNI's technology is used in consumer electronics and wearables, smart parking, IoT, robotics, automotive, military, and other applications, by customers such as Nintendo, Samsung, iRobot, Sony, STMicroelectronics, General Motors, and Ford. To learn more, please visit www.pnicorp.com.

PNI Sensor Corporation and the PNI logo are registered trademarks, and PlacePod is a trademark of PNI Sensor Corporation. All other product and company names are trademarks or registered trademarks of their respective holders.

About Semtech

Semtech Corporation is a leading supplier of analog and mixed-signal semiconductors for high-end consumer, enterprise computing, communications, and industrial equipment. Products are designed to benefit the engineering community as well as the global community. The Company is dedicated to reducing the impact it, and its products, have on the environment. Internal green programs seek to reduce waste through material and manufacturing control, use of green technology and designing for resource reduction. Publicly traded since 1967, Semtech is listed on the Nasdaq Global Select Market under the symbol SMTC. For more information, visit www.semtech.com.

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