

IoT Solution from Q-Free and Silicon Labs Alleviates Urban Traffic

-- ParQSense Smart Sensor Powered by Silicon Labs' Wireless Technology Helps Car Drivers Quickly Find Open Parking Spots --

AUSTIN, Texas and TRONDHEIM, Norway – Sept. 5, 2018– [Q-Free](#) and [Silicon Labs](#) (NASDAQ: SLAB) announce a collaboration on a new outdoor parking IoT sensor solution that makes it faster and easier for automotive drivers in urban areas to locate open parking spots. The companies have worked together to create Q-Free's ParQSense Smart Parking Sensor, which uses the Silicon Labs' [Wonder Gecko](#) wireless microcontroller (MCU) for control and Sub-GHz connectivity. The Q-Free solution was deployed as a pilot this year in the EU (UK, Netherlands, Sweden and Norway) and North America, and will be released for commercial use on Sept. 17.

"The Q-Free ParQSense Smart Parking Sensor is a great example of how IoT ingenuity can improve our lives and the overall urban experience," said Dennis Natale, Vice President and General Manager of IoT Products at Silicon Labs. "As the demand for smart city solutions accelerates, IoT innovators like Q-Free are choosing Silicon Labs' low-power wireless connectivity technologies for their solutions."

With more than 30 years in the intelligent transportation market, Q-Free has focused its resources on developing ways to reduce traffic flows. Q-Free provides a wide range of transportation technologies including electronic tolling, vehicle counters, surveillance technologies and parking management solutions. The ParQSense Smart Parking Sensor is one of the company's first sensor products to support outdoor parking needs. According to [an INRIX study](#), 20 percent of traffic in urban areas can be attributed to drivers searching for parking spots.

"To develop an IoT sensor solution for outdoor parking that would succeed in today's market, we had to deliver a combination of low-power, long-range wireless connectivity and high performance," said Brage Blekken, a project manager in Q-Free's R&D department. "Silicon Labs helped us overcome this challenge by providing best-in-class wireless technology capable of transmitting data over long distances in the sub-GHz band. The EZR32WG Wonder Gecko wireless MCU was the perfect fit for our application needs."

Many existing outdoor parking sensors on the market prior to the Q-Free solution had accuracy limitations, and struggled with wireless capabilities and interference from cellular networks commonly associated with urban environments.

The Q-Free ParQSense solution uses dual radar and magnetic field technology to sense with 99+ percent accuracy whether a vehicle is present in a parking space. The application transmits data to centralized base stations over ultra-long distances using narrowband sub-GHz wireless connectivity.

During the product development phase, Q-Free recognized low-power wireless connectivity would be crucial in ensuring the viability of the solution. The primary product design obstacle was offering a combination of high accuracy components with extreme low power consumption, a challenge Silicon Labs routinely solves for customers.

Pricing and Availability

The Q-Free ParQSense Smart Parking Sensor product line will be available for commercial release Sept. 17, 2018. Please contact Q-Free for information on pricing.

Q-Free

Q-Free is a leading global supplier of Intelligent Transportation Systems comprising tolling, parking, infomobility, traffic management and C-ITS/connected vehicle solutions. Founded in 1984 and headquartered in Trondheim, Norway, the company has annual revenues of approximately 1 billion NOK, over 400 employees, offices in 18 countries, and a presence on all continents. Q-Free is listed on the Oslo Stock Exchange under the ticker QFR.

Silicon Labs

Silicon Labs (NASDAQ: SLAB) is a leading provider of silicon, software and solutions for a smarter, more connected world. Our award-winning technologies are shaping the future of the Internet of Things, Internet infrastructure, industrial automation, consumer and automotive markets. Our world-class engineering team creates products focused on performance, energy savings, connectivity and simplicity. www.silabs.com

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