News Release

RSL10 Mesh Platform from ON Semiconductor Enables Smart Building and Industrial IoT Bluetooth® Low Energy Mesh Applications

Strata-enabled solution supports node-to-node communication with smart sensing and cloud connectivity

PHOENIX, Ariz. – 23 June, 2020 – ON Semiconductor (Nasdaq: ON), driving energy efficient innovations, has introduced a new Bluetooth® Low Energy mesh networking solution based on its ultra-low-power RSL10 System-in-Package (RSL10 SIP). Using the RSL10 Mesh Platform, engineers can easily implement ultra-low-power mesh networking, using Bluetooth® Low Energy technology, and move quickly towards full deployment. Optimized for smart home, building automation, industrial IoT, remote environment monitoring, and asset tracking and monitoring applications, this multi-faceted solution has all the essential elements needed for developing and deploying a mesh network. It consists of two RSL10 Mesh Nodes and a Strata Gateway for connectivity to the Strata Developer Studio™.

Complementing the RSL10 SIP, an array of sensing and indicator devices have been incorporated into the node hardware, including an ambient light sensor (LV0104CS), temperature sensor (N34TS108), magnetic sensors, LED indicators and a triple-output NCP5623B LED driver (for color mixing purposes). Alongside this is a built-in battery charger suitable for batteries with either Li-Ion or Li-Poly chemistries.

The mesh nodes can be easily configured to take on different roles and demonstrate particular functional aspects. The accompanying Strata Gateway allows evaluation processes to be carried out using the highly intuitive Strata Developer Studio. This cloud-connected software enables provisioning of additional mesh and supports firmware-over-the-air (FOTA) updates. Using the virtual workspaces for common mesh networking examples, including a smart office, developers can access sensor data and trigger settings. The highly energy efficient RSL10 radio is supported by an Eclipse-based Integrated Development Environment, a mobile application for provisioning, configuring and controlling a Bluetooth Low Energy Mesh network, and a Mesh Networking software package compliant with the Bluetooth SIG.

–m o r e–

ON Semiconductor®

"The value of Bluetooth Low Energy mesh networking and the elimination of range limitations are now being recognized within a multitude of different contexts in the industrial, agricultural, enterprise and logistics sectors, as well as in relation to the emergence of smart cities. However, operational constraints and ease of implementation still represent major challenges," stated Wiren Perera who heads IoT at ON Semiconductor. "Through this new platform we are helping to dramatically accelerate mesh networking development, so that nodes can be more rapidly deployed which push the performance envelope in terms of range, resiliency and power budget."

Additional Resources & Documents:

- RSL10 Mesh Platform Landing Page
- RSL10 Mesh Platform Development Kit Page
- What is Bluetooth Low Energy Mesh Networking? (Video)
- Unboxing the RSL10 Mesh Platform (Video)
- Mesh Networking for Smart Buildings and Industrial IoT (Blog)