Silicon Labs and IMST Collaborate on Comprehensive Smart Energy Solutions

NUREMBERG, Germany -- (BUSINESS WIRE) -- Silicon Laboratories Inc. and IMST GmbH today introduced a turnkey wireless M-Bus solution designed for the smart energy market. The comprehensive hardware/software solution combines IMST's industry-leading expertise in the wireless M-Bus market with Silicon Labs' Si10xx wireless microcontroller (MCU) technology to simplify the deployment of ultra-low-power, high-performance, pre-certified wireless M-Bus modules for smart meters.

IMST's iM871A wireless M-Bus module offers a cost-effective RF solution for smart metering applications connecting water, heat, electricity and gas meters with data concentrators in the 868 MHz frequency band. Using Silicon Labs' high-performance Si1002 wireless MCU, the iM871A module can achieve a link budget up to 120 dB when operating in R2 mode, resulting in exceptional RF range and communications performance. This link budget is especially critical in addressing wireless communication requirements in challenging environments inside residential and commercial buildings.

The iM871A module has an exceptionally small footprint (17 mm x 19 mm), comes equipped with a serial interface as well as analog and digital inputs and outputs to accommodate interfaces with a customer's system, and is fully compliant with the EN 13757-4 standard. With a standby current of less than 1 microamp, the iM871A is well-suited for applications requiring long battery life such as water and gas meters. The iM871A module solution is compatible with a wide range of wireless M-Bus devices in the field. The module supports all major unidirectional and bidirectional wireless M-Bus modes (S1, S2, T1, T2 and R2) in addition to all tolerance specifications, enabling the highest possible flexibility in metering environments.

"The collaboration between Silicon Labs and IMST has resulted in a best-in-class, sub-GHz wireless M-Bus solution that combines the industry's lowest power wireless MCU with the proven performance of IMST's wireless M-Bus software," said Dr. Peter Waldow, CEO of IMST. "The jointly developed wireless module will streamline the development of cost-effective and energy-efficient wireless M-Bus solutions required in today's smart meter market."

"The combination of Silicon Labs' Si10xx wireless MCUs and IMST's wireless M-Bus module provides an ideal sub-GHz wireless communications solution for today's smart energy applications," said Mark Thompson, vice president of Embedded Mixed-Signal products at Silicon Labs. "Using this tightly integrated hardware/software solution, embedded developers can get their wireless M-Bus applications up and running quickly while benefiting from the power-efficient, battery-saving capabilities of our Si10xx MCUs and their exceptional wireless range and performance."

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