Silicon Labs and CEL Partner on Low-Power Wireless Mesh Networking Solution

Silicon Laboratories Inc. today announced that it is providing the enabling wireless microcontroller (MCU) technology for a new line of sub-GHz wireless mesh networking modules from California Eastern Laboratories (CEL). Powered by Silicon Labs' Si10xx wireless MCUs, the MeshConnect Sub-G modules are CEL's first module series optimized for wireless applications in the sub-GHz ISM band including smart meters, home automation, security systems, remote keyless entry, irrigation control and weather stations.

Designed for dense operating environments, the MeshConnect Sub-G modules deliver superior RF range and performance. The 868 MHz and 902 to 928 MHz frequency ranges provide robust transmission for non-line-of-sight applications. The modules can achieve a link budget up to 140 dB with a sensitivity of up to -121 dBm. Higher link budgets enhance wireless system performance in challenging operating environments.

The highly integrated, single-chip Si10xx wireless MCUs provide industry-leading low power consumption, enabling extended battery life for wireless systems based on MeshConnect modules that require battery backup or fully portable operation. The wireless MCUs also enable the modules to deliver ultra-low RF power consumption.

The MeshConnect Sub-G modules support multiple software platforms, ensuring compliance with leading US and European operating standards. These software platforms include Synapse SNAP embedded firmware, wireless M-Bus, Silicon Labs' EZMac software and CEL's proprietary application programming interface (API). The modules also provide a 1 MB flash memory option to support over the air (OTA) programming, giving system manufacturers and users the flexibility to perform software updates and system optimizations quickly and easily.

CEL's wireless modules provide pre-certified hardware/software solutions that accelerate time to market and reduce system cost and design risk. Pre-certified solutions can reduce development time by months and eliminate the costly certification process. To further speed time to market, CEL offers developers the MeshConnect Sub-G Development Kit, which enables rapid prototyping in days rather than months.

A member of Silicon Labs' Wireless Partner Program, CEL provides a comprehensive line of MeshConnect solutions including modules, ICs and software packages for use in mesh, point-to-point and point-to-multipoint systems.

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