Silicon Labs' Bridge IC Family Simplifies Addition of USB Connectivity in Embedded Designs

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New CP21xx USB Bridge ICs Eliminate Software Complexity and Driver Compatibility Issues When Upgrading Serial Interfaces to USB

AUSTIN, Texas--(BUSINESS WIRE)-- Silicon Laboratories Inc. (NASDAQ: SLAB), a leader in high-performance, analog-intensive, mixed-signal ICs, today announced its latest-generation bridge chip family, providing a cost-effective, small-footprint solution for USB and human interface device (HID)-USB connectivity. Silicon Labs' new CP21xx USB bridge family offers a turnkey solution for upgrading serial interfaces to USB or adding USB and HID-USB to applications such as personal medical devices, cellular and cordless phones, smart card and flash card readers, personal digital assistants, MP3 players, bar code readers, wireless modems and industrial control systems.

With the rapid proliferation of USB and HID-USB in the embedded world, developers are looking for painless, economical ways to embed USB connectivity in their designs. A leading supplier of USB connectivity solutions and smart interface ICs, Silicon Labs developed the CP21xx bridge family so that designers can add USB to microcontroller-based applications without the cost and complexity of developing sophisticated USB software. The CP21xx ICs require no USB expertise to deploy, enabling developers to focus their time and resources on their end applications.

Silicon Labs' new CP21xx USB bridge family features four USB-to-serial bridge chip solutions including the industry's first HID-USB bridge solutions:

- USB to UART bridge (CP2104)
- USB to dual UART bridge (CP2105)
- HID-USB to UART bridge (CP2110)
- HID-USB to SMBus and I2C bridge (CP2112)

The new CP2110 and CP2112 bridge ICs comply with the USB-HID class specification natively supported by most operating systems, thus removing the need to install drivers. This eliminates the risk of incompatible and exhaustive driver updates and obviates the need for customers to provide companion CDs with specialized driver information or to maintain download sites for driver updates. In addition, Silicon Labs' HID-USB devices provide seamless compatibility with most operating systems, ending product delays typically associated with resolving compatibility issues, speeding time to market and easing the design effort.

To deliver this USB design flexibility in a small footprint, the CP21xx family is built on an innovative, proven architecture that eliminates the need for costly and complex external crystals, internal or external EEPROM, and other discrete components. The single-chip CP21xx devices integrate a USB 2.0 full-speed function controller, USB transceiver, on-chip silicon oscillator, one-time programmable (OTP) ROM, and asynchronous serial data bus with full modem control signals. The CP21xx family's novel clock recovery feature enables the internal oscillator to meet USB full-speed clock accuracy requirements. The built-in programming charge pump supports in-field programming for quick, effortless custom-configuration of USB vendor IDs, product IDs, USB descriptors, power descriptors, device release numbers and device serial numbers.

"We've led the industry with easy-to-use USB solutions that free developers from the headaches and complexities associated with designing USB into embedded systems," said Mark Thompson, vice president of Silicon Labs' Embedded Mixed-Signal products. "Our next-generation USB bridge solutions include royalty-free software driver suites, a rich design ecosystem, crystal-less operation, a built-in programming charge pump and a tiny package size — all to reduce system cost, streamline system design and speed our customers' time to market."

Comprehensive USB development support

Silicon Labs supports customer development with a variety of evaluation kits. The CP2104EK kit supports evaluation and customization of a simple USB-to-UART bridge while the CP2105EK kit supports USB-to-dual-UART designs. The CP2110EK kit enables comprehensive evaluation and customization of an HID-USB-to-UART bridge, and the CP2112EK kit supports HID-USB-to-SMBus/I2C bridge connections.

Pricing and availability

Samples and production quantities of the CP21xx USB bridge ICs are available now in a space-saving 4 mm x 4mm 24QFN package. Pricing begins at $1.06 in 10,000-unit quantities. The CP2104EK and CP2112EK evaluation kits are priced at $29.00. The CP2105EK and CP2110EK kits are priced at $39. (All prices in USD.) For more information about the CP21xx USB bridge family, visit www.silabs.com/pr/USBbridge.

Silicon Laboratories Inc.

Silicon Laboratories is an industry leader in the innovation of high-performance, analog-intensive, mixed-signal ICs. Developed by a world-class engineering team with unsurpassed expertise in mixed-signal design, Silicon Labs' diverse portfolio of highly-integrated, easy-to-use products offers customers significant advantages in performance, size and power consumption. These patented solutions serve a broad set of markets and applications including consumer, communications, computing, industrial and automotive.

Headquartered in Austin, TX, Silicon Labs is a global enterprise with operations, sales and design activities worldwide. The company is committed to contributing to our customers' success by recruiting the highest quality talent to create industry-changing innovations. For more information about Silicon Labs, please visit www.silabs.com.

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This press release may contain forward-looking statements based on Silicon Laboratories' current expectations. These forward-looking statements involve risks and uncertainties. A number of important factors could cause actual results to differ materially from those in the forward-looking statements. For a discussion of factors that could impact Silicon Laboratories' financial results and cause actual results to differ materially from those in the forward-looking statements, please refer to Silicon Laboratories' filings with the SEC. Silicon Laboratories disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

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