Cypress Samples Its Second-Generation USB Type-C Controller in an Ultra-Small Chip-Scale Package for USB 3.1 Cables and Cable Adapters

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Programmable, Single-Chip EZ-PD™ CCG2 Type-C Controller Enables Fast Time to Market for Top-Tier OEMs; Optimized Solution Follows the Pioneering CCG1 Type-C Port Controller

SAN JOSE, Calif., March 9, 2015 – Cypress Semiconductor Corp. (NASDAQ: CY), the USB market leader, today sampled an ultra-small footprint, integrated USB Type-C cable controller solution with power delivery (PD). Optimized for 2.4-mm thin USB Type-C cable connectors, the programmable EZ-PD™ CCG2 controller is fully capable of supporting any USB Type-C Downstream Facing Port (DFP) or Upstream Facing Port (UFP) applications. EZ-PD CCG2 is available in a 3.3 mm2 Wafer Level Chip Scale Package (WLCSP) and is the first programmable solution to fully integrate both the Type-C transceiver and termination resistors needed for Type-C communication.

The USB Type-C standard is gaining rapid support with top-tier PC makers by enabling slim industrial designs, easy-to-use connectors and cables, the ability to transmit multiple protocols, and 100W PD—a significant improvement over the previous 7.5W standard. However, the Type-C standard requires an Electronically Marked Cable Assembly (EMCA) that can report the characteristics a cable supports, such as current carrying capability, protocols supported, and vendor identification. A standard microcontroller may be used for the EMCA implementation, but it makes the design complex by requiring multiple external ICs and passive components. Cypress’s EZ-PD CCG2 Type-C controllers solve this challenge with unprecedented integration and bill-of-materials savings with only five or fewer external components required. This makes them ideally suited for Passive and Active EMCA cables, as well as for cable adapters that enable users to connect devices with a Type-C port to devices with DisplayPort or HDMI ports.

"Cypress's CCG1 controllers opened up the path for quick adoption of USB Type-C for our top-tier customers, bringing the standard's easy plug-and-play ability, multi-protocol connectivity, and power delivery to market," said Ajay Sirkirisha, Vice President of the USB product line at Cypress. "Now, with our second generation EZ-PD CCG2 Type-C controller's unmatched levels of integration in a tiny footprint package, we have an optimized, programmable solution for electronically-marked cables and cable adapters."

The EZ-PD CCG2 controller comes with on-die System Level ESD protection (8kV Contact Discharge, 15kV Air Discharge), eliminating the need for external components for this protection and resulting in a smaller footprint and bill-of-materials reduction. The controller has an ARM® Cortex®-M0 core and 32kB of Flash, providing design flexibility with firmware that can be upgraded during product development, in the production line, or in the field. This feature is particularly helpful for future USB-IF specification changes, which can be addressed simply with a firmware revision to achieve compliance. A CCG2 product video is available at www.cypress.com/ccg2video.

Product Availability
The CYPD21XX CCG2 Type-C Cable controller family is sampling now and will be available for production in June. CCG2 is available in 20-ball WLCSP and 14-pin DFN packages. More information on Cypress's Type-C and USB power delivery solutions is available at www.cypress.com/Type-C.

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Cypress delivers high-performance, mixed-signal, programmable solutions that provide customers with rapid time-to-market and exceptional system value. Cypress offerings include the flagship PSoC® 1, PSoC 3, PSoC 4 and PSoC SLP programmable system-on-chip families. Cypress is the world leader in capacitive user interface solutions including CapSense® touch sensing, TrueTouch® touchscreens, and trackpad solutions for notebook PCs and peripherals. Cypress is a world leader in USB controllers, which enhance connectivity and performance in a wide range of consumer and industrial products. Cypress is also the world leader in SRAM and nonvolatile RAM memories. Cypress serves numerous major markets, including consumer, mobile handsets, computation, data communications, automotive, industrial and military. Cypress trades on the NASDAQ Global Select Market under the ticker symbol CY. Visit Cypress online at www.cypress.com.

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