Cypress Announces USB-IF Certification of SuperSpeed USB 3.0 Controllers

Cypress Semiconductor announced USB-IF certification of its two SuperSpeed USB Peripheral Controllers: EZ-USB FX3 (CYUSB3014) and West Bridge Benicia (CYWB0263BB). Both of these peripheral controllers are in full production now.

EZ-USB FX3 is one of the first USB 3.0 peripheral controllers in the industry, and the only programmable solution. It is equipped with a fully configurable General Programmable Interface (GPIF™ II), which is 8/16/32 data bits wide with data rates as high as 400 MBps. GPIF II enables FX3 to interface directly to any processor, ASIC or FPGA. The GPIFTM Designer Tool kit helps system designers to configure the GPIF interface to their needs, and standard interfaces are provided as examples, including FIFO, SRAM, asynchronous and synchronous address/data multiplexed, parallel ATA and others. The on-chip ARM9 CPU core with 512KB RAM delivers 200 MIPS of computational power and is available for applications that require local data processing. Additionally, FX3 provides interfaces to connect to serial peripherals such as SPI, UART, I2C and I2S. In short, FX3 provides highly flexible and integrated features that enable developers to add USB 3.0 connectivity to any system.

West Bridge Benicia is a highly optimized data transfer offload engine that enables mobile devices to double the IOPS (Input/Output Operations Per Second) performance, stream high definition video, “side-load” multimedia content up to 160 MBps and reduce battery charging time by 50% with increased charging currents up to 900mA. Benicia employs the second generation Simultaneous Link to Independent Multimedia™ (SLIM™ II) architecture that manages multiple non-blocking paths among peripherals, memory and processor to allow maximum data throughput and power savings. Benicia features two storage ports supporting SD 3.0 and eMMC 4.41 that can be configured in RAID-0 to provide significant improvement in random and sequential read/write operations, two key indices which govern overall system performance and responsiveness. In addition, Benicia’s EZ-Detect automatically detects a wall charger or a USB hub/host port, providing portable devices flexibility for managing battery charging options.

“EZ-USB FX3 is analogous to a Swiss Army knife for designers; flexible, powerful and easy-to-implement. FX3 is being designed into a wide array of applications that require high-speed content, streaming and low power consumption, including video and USB sub-systems,” said Badri Kothandaraman, Executive Vice President, Data Communications Division at Cypress. “In addition to the blazing side-loading speeds enabling transfer of an HD movie in under a minute, West Bridge Benicia helps designers realize higher IOPS in tablets and smartphones, improving device performance and responsiveness. We are pleased that both these devices have received USB-IF certification, and we are confident they will expedite the adoption of SuperSpeed USB.”

“The USB-IF is pleased to certify Cypress’s SuperSpeed USB Controllers: EZ-USB® FX3 (CYUSB3014) and West Bridge Benicia (CYWB0263BB),” said Jeff Ravencraft, President and COO, USB-IF. “Cypress’s SuperSpeed USB controllers will help the expansion of the SuperSpeed USB ecosystem.”

Both EZ-USB FX3 and West Bridge Benicia are in volume production now. FX3 is available in a small 121-ball BGA with dimensions of 10 mm x 10 mm x 1.2 mm with 0.8-mm pitch, Benicia is available in an ultra-compact 131-ball WLCSP package with dimensions of 5.099 mm x 4.695 mm x 0.55 mm with 0.4-mm pitch.

Cypress will be participating in the USB Tech Zone at CES 2012. The USB Tech Zone is located in the Las Vegas Convention Center South Hall 3, Booth #30769. Demos showcasing the performance of EZ-USB FX3 and Benicia will be available at the USB Tech Zone booth as well as Las Vegas Hilton Suites 2410 and 2510 by appointment.

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Posted by Janine E. Mooney, Editor

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