Cypress Introduces New Development Platform for PSoC(R) 5 Programmable System-on-Chip Architecture with ARM Cortex-M3 Processor

New Scalable Platform Combines Programmable Precision Analog and Digital Logic with High Performance 32-Bit Processor for Unmatched Integration, and Flexibility

- Two new development kits for PSoC 5 Architecture
- Samples now available for PSoC 5 CY8C55xxx family
- Enhanced version of PSoC Creator Software IDE with PSoC 5 support

SAN JOSE, Calif., Jun 07, 2010 (BUSINESS WIRE) -- Cypress Semiconductor Corp. (Nasdaq: CY) today introduced the new development platform for the revolutionary PSoC(R) 5 programmable system-on-chip architecture. The company unveiled two new design kits, a new version of the PSoC Creator Integrated Development Environment (IDE), and announced that devices from the CY8C55xxx family are now sampling. The unique programmable analog and digital peripherals in PSoC 5, along with the high performance 32-bit ARM(R) Cortex(TM)-M3 processor, position PSoC 5 for demanding applications such as industrial, medical, automotive, and consumer equipment. PSoC 5 devices offer industry-leading integrated analog resources, including one 20-bit Delta Sigma ADC and two 12-bit SAR ADCs with sample rates as high as 1 Msps. The PSoC 5 architecture also includes the powerful, PLD-based Universal Digital Blocks for implementing standard and custom digital peripherals. The new PSoC 5 development platform including kits, samples and PSoC Creator are available today at www.cypress.com/go/psoc5.

The PSoC 5 FirstTouch(TM) Starter Kit (CY8CKIT-014) helps designers get acquainted with the new PSoC 5 architecture. It includes software and example projects which take advantage of the kit’s onboard sensors including an accelerometer, a thermistor, proximity sensing, and CapSense. The kit enables easy development via 28 general-purpose I/O pins, a 12-pin wireless module header, and Serial Wire Debugging (SWD). It also includes the PSoC Creator(TM) IDE, a powerful design environment that combines schematic and textual entry with pre-configured, pre-tested components that can be simply "dropped-into" designs. The kit is available today, priced at US$49.00.

The CY8CKIT-010 PSoC CY8C55 Family Processor Module Kit is available for more in-depth design work. It works with the PSoC Development Kit (CY8CKIT-001), which offers support for the entire PSoC line. The CY8CKIT-001 kit contains a main PSoC development board, and three processor module boards for the different architectures: PSoC 1, PSoC 3 and PSoC 5 devices. It also provides software and evaluation device, prototyping cable kit, a USB cable, a 12V AC power adapter, and both PSoC Creator(TM) and PSoC Designer(TM) software. Sample projects are also provided. The kit is available today, priced at US$249.00. The PSoC 5 processor module is priced at US$65.00. Designers can get more information and order kits and samples from www.cypress.com/go/psoc5.

"We're confident that PSoC 5 will build upon the success of PSoC 1 and PSoC 3, and engineers will find the unique programmable analog and digital resources combined with the proven Cortex-M3 core to be a powerful embedded design platform," said Matt Branda, PSoC Platform marketing director for Cypress. "The broad base of ARM eco-system customers now have the ability to take advantage of the revolutionary PSoC platform."

"The flexibility and integration of PSoC meshes perfectly with the high performance and low power of the Cortex-M3 to deliver a truly powerful product for embedded designers," said Eric Schorn, VP marketing, Processor Division, ARM. "The integration of the Cortex-M3 processor into the innovative PSoC 5 platform is a clear demonstration of the processor's growing adoption and flexibility for a wide range of applications."

About the PSoC 5 Architecture

The PSoC 5 architecture combines the industry-leading ARM Cortex-M3 processor, which operates at a maximum frequency of 80 MHz enabling up to 100 DMIPS of performance, with flexible analog and digital subsystems. The analog subsystem includes high-precision, programmable analog resources such as ADCs, DACs, TIAs, Mixers, PGAs, OpAmps and more that can be configured to suit a designer’s unique needs. The digital subsystem includes enhanced programmable-logic based digital resources that can be configured as 8-, 16-, 24- and 32-bit timers, counters, and PWMs, as well as more advanced digital peripherals such as Cyclic Redundancy Check (CRC), Pseudo Random Sequence (PRS) generators, and quadrature decoders. Designers have a unique ability to customize this digital system through full featured general purpose PLD-based logic available in PSoC 5. The new architectures also support a wide range of communications interfaces, including Full-Speed...
USB, I²C, SPI, UART, CAN, LIN, and I²S.

The new PSoC 5 architecture meets the demands of extremely low power applications by delivering the industry's widest voltage range from 5.5V down to 0.5V along with low 300nA hibernate current. It offers programmable routing, allowing any signal, whether analog or digital, to be routed to any general-purpose I/O to ease circuit board layout. This capability includes the ability to route LCD Segment Display and CapSense signals to any GPIO pin.

The PSoC 5 architecture is powered by the revolutionary PSoC Creator(TM) Integrated Development Environment, which introduces a unique schematic-based design capture along with fully tested, pre-packaged analog and digital peripherals easily customizable through user-intuitive wizards and APIs to meet specific design requirements. PSoC Creator enables engineers to design the way they think and dramatically shorten time-to-market, and allow a seamless transition between 8-bit PSoC 3 designs and 32-bit PSoC 5 designs with pin and API compatibility. More information, including data sheets, application notes, online training, development kits, free PSoC Creator downloads and device samples, is available at http://www.cypress.com/go/psoc5.

Availability

The PSoC 5 FirstTouch(TM) Starter Kit and CY8CKIT-010 PSoC CY8C55 Family Processor Module Kit are both available today, priced at US$49.00 and US$65.00, respectively. The CY8CKIT-001 PSoC Development Kit is also available, priced at US$249.00. All the kits, as well as samples of the CY8C55xxx family, are available at www.cypress.com/go/psoc5.

About Cypress

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(R) programmable system-on-chip families and derivatives such as PowerPSoC(R) solutions for high-voltage and LED lighting applications, CapSense(R) touch sensing and TrueTouch(TM) solutions for touchscreens. Cypress is the world leader in USB controllers, including the high-performance West Bridge(R) solution that enhances connectivity and performance in multimedia handsets. Cypress is also a leader in high-performance memories and programmable timing devices. Cypress serves numerous 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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