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Cypress Expands Leading Non-Volatile SRAM Portfolio with New Serial Family And Adds Integrated Real-Time Clock Capability **Last Updated: 10/06/2009**

Leveraging 0.13-Micron SONOS for Superior Performance and Reliability, Cypress nvSRAMs Offer Best Solution for Computing, Industrial, Automotive and Data Communication Applications

SAN JOSE, Calif., October 7, 2009 - Cypress Semiconductor Corp. (NYSE: CY) today introduced a new 1-Mbit Serial non-volatile Static Random Access Memory (nvSRAM) family and new 4-Mbit and 8-Mbit nvSRAMs with an integrated real-time clock (RTC).

Cypress's nvSRAMs are manufactured on its S8™ 0.13-micron SONOS (Silicon Oxide Nitride Oxide Silicon) embedded non-volatile memory technology, enabling greater densities and improved access times and performance. nvSRAMs are ideal solutions for applications requiring absolute non-volatile data security such as RAID systems, industrial control and automation (e.g. PLCs, motion control, motor drives and robotics), single board computers, POS terminals, eMetering, automotive, medical and data communication systems.

The serial nvSRAM family includes 1-Mbit devices in multiple configurations with an industry-standard SPI interface. Available in small-footprint 8-pin DFN and 16-pin SOIC packages, the serial nvSRAMs feature operating frequencies up to 40 MHz. One member of the serial nvSRAM family integrates an RTC as well.

Cypress's parallel nvSRAMs feature access times as low as 20 ns, infinite read, write and recall cycles, and up to 20-years of data retention. The new 4-Mbit and 8-Mbit nvSRAMs integrate an RTC that enables time-stamping of critical data for back-up and also features a programmable alarm function and watchdog timer. For more information about Cypress's portfolio of nvSRAM products, visit www.cypress.com/go/nvm.

"Our new serial family extends Cypress's industry-leading nvSRAM portfolio to address applications that require high-endurance memories in industry-standard, low-pin count packages," said Jithender Majjiga, Senior Director of the Non-Volatile Products Business Unit at Cypress. "Likewise, integrating a real-time clock in our nvSRAMs enables our portfolio to cover applications traditionally served by BBSRAMs."

Cypress's nvSRAMs are ROHS-compliant and directly replace SRAM, battery-backed SRAM (BBSRAM) and EEPROM devices, offering fast non-volatile data storage without batteries. Data transfers from the SRAM to the device's non-volatile elements take place automatically at power down. On power up, data is restored to the SRAM from the non-volatile memory. Both operations are also available under software control. nvSRAMs reduce board space and design complexity.

A leader in SONOS process technology, Cypress is using the S8 technology in next generation PSoC® mixed-signal arrays, programmable clocks and other products. SONOS is compatible with standard CMOS technologies and offers numerous advantages including high endurance, low power, and radiation hardness. In addition, SONOS technology provides a more robust, manufacturable and scalable solution compared to other magnetic or ferroelectric based non-volatile memory technologies.

Availability and Photo

Cypress's 1-Mbit serial nvSRAMs are available in a 128k x 8 configuration and are currently in production. The CY14B101Q1 and CY14B101Q2 devices are available in an 8-pin DFN package. The CY14B101P serial device with RTC and the CY14B101Q3 are available in a 16-pin SOIC package.

The 4-Mbit nvSRAM with RTC comes in 512k x 8 (CY14B104K) and 256k x 16 (CY14B104M) configurations, and is currently in production. The 8-Mbit nvSRAM with RTC comes in 1024k x 8 (CY14B108K) and 512k x 16 (CY14B108M) configurations and is currently sampling with production expected by early Q1 2010. The 4-Mbit and 8-Mbit devices are all available in 44-pin and 54-pin TSOP II packages. For a high-resolution photo of the new nvSRAMs, visit www.cypress.com/go/pr/serialrtcnvramphoto.

About Cypress nvSRAMs

Cypress's nvSRAMs use charge stored on an external capacitor instead of a battery, making the devices compatible with standard PCB assembly processes. The devices are available in 8-Mbit/3V, 4-Mbit/3V, 1-Mbit/5V, 1-Mbit/3V, 256-Kbit/3V, 256-Kbit/5V, 64-Kbit/5V and 16-Kbit/5V configurations. The devices are highly scalable, with 1-Mbit and 256-Kbit devices available in small 32-pin SOIC and 48-pin SSOP packages. The 8-Mbit, 4-Mbit, and 2-Mbit devices are available in 48-pin FBGA, 44-pin TSOP II and 54-pin TSOP II packages. The nvSRAM product family supports pin-compatible upgrades for additional density and real-time-clock requirements.

In RAID applications, nvSRAMs offer high-speed data transfer while ensuring data integrity in case of power outages. For copiers, nvSRAMs deliver fast data access and eliminate the need for a battery. Handheld meters benefit from the data buffering provided by nvSRAMs for fast access to data being uploaded to a server.

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 PSoC® programmable system-on-chip, USB controllers, general-purpose programmable clocks and memories. Cypress also offers wired and wireless connectivity technologies ranging from its CyFi™ Low-Power RF solution, to West Bridge® and EZ-USB® FX2LP controllers that enhance connectivity and performance in multimedia handsets. Cypress serves numerous markets including consumer, computation, data communications, automotive, and industrial. Cypress trades on the NYSE under the ticker symbol CY. Visit Cypress online at www.cypress.com.

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