MCU Family Enhances Connectivity and LCD Control

Atmel, a leader in microcontroller and touch technology solutions, announced five new devices to the Atmel SAM9 ARM926-based family [1] of microcontrollers (MCUs). The new SAM9 devices target applications in industrial and building control, HVAC, Point of Sale (POS) terminals, printers and medical devices, smart grid with data concentrators, human machine interfaces (HMI) and machine-to-machine (M2M) market segments.

The new SAM9G15, SAM9G25, SAM9G35, SAM9X25, SAM9X35 [1] devices expand Atmel's existing ARM-based portfolio by supporting a range of key technology features required for today's applications. These key features include replacing SDRAM with DDR2 memory for more memory-intensive applications; NAND flash support with 24-bit ECC for reduced system cost; and more communication channels including dual 10/100 Ethernet, dual CAN and up to 3x USB ports for a variety of application requirements. Atmel has also teamed with Conexant to enable soft modem implementation on the new SAM9 devices to lower the overall bill of materials (BOM) by eliminating external components. The five new ARM926-based microcontrollers operate at up to 400MHz and the core and peripherals consume only 100mW at maximum performance.

"We are delighted to collaborate with microcontroller leader Atmel," said Sailesh Chittipeddi, Ph.D., Conexant president and chief executive officer. "Soft modems play an essential role in a range of applications from POS terminals, alarm systems, telecare and others requiring a publicly switched telephone network (PSTN) line. Now designers have access to a highly efficient and streamlined approach for deploying a soft modem while lowering the overall system cost."

The new Atmel SAM9 devices also include an advanced graphics LCD controller with hardware acceleration for more modern user interfaces in today's industrial applications. The enhanced LCD controller includes overlays, alpha blending, image scaling, rotating and color space conversion to enable a more intuitive interface, while offloading the CPU.

"Atmel continues to expand its 32-bit ARM-based portfolio to support our changing customer requirements," said Jacko Wilbrink, director of ARM products, Atmel Corporation. "The new SAM9 devices are ideal host processors for applications requiring DDR2 and NAND flash support, a rich combination of wired and wireless communication interfaces plus advanced LCD support for a modern user experience. We are a leader in the 32-bit microcontroller segment and will continue to bring innovative products to the market to meet our customers' needs."

For more information about the SAM9 devices, please click the following link: http://www.atmel.com/dyn/products/devices.asp?category_id=163&family_id=605&subfamily_id=1739&source=pr-sam9g [1].

A live webinar entitled "Technical Introduction to the New Atmel ARM926-based SAM9G15/G25/G35/X25/X35" is scheduled at 8 a.m. PT on September 20, 2011. To register for this event, click the following link: http://event.on24.com/r.htm?e=340066&s=1&k=0A6E639A4C7B18C3AC33F62800D9D94E [2].

Atmel continues to make strong investments in the Atmel AVR 32-bit UC3 microcontroller series [3] and ARM-based products [4]. Atmel is finding new opportunities in the 32-bit microcontroller market and is committed to this market segment.

The SAM9G15, SAM9G25, SAM9G35, SAM9X25, SAM9X35 [1] are available now in a 0.8mm ball pitch 217-ball BGA package. The SAM9G25 also ships in a 0.5mm ball pitch 247-pin BGA package. Pricing starts at $6.10 USD in 1,000-piece quantities.

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