Freescale introduces 90nm thin film storage flash with FlexMemory for next-generation microcontrollers

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Freescale Semiconductor today announced 90 nanometer thin film storage (TFS) flash memory technology for its next-generation microcontroller (MCU) platforms. The advanced technology is expected to be deployed in Freescale MCUs targeted for applications ranging from consumer electronics and household appliances to medical devices and smart metering systems.

Freescale also introduced FlexMemory, a key feature of TFS flash. FlexMemory provides simple, cost-effective, on-chip, enhanced electrically erasable programmable read-only memory (EEPROM) with the added benefits of industry leading flexibility, performance and endurance. FlexMemory can be configured by the user as additional flash memory or as a combination of EEPROM and flash memory.

“Our goal is to provide developers with complete plug-and-play solutions designed to alleviate cost and time-to-market concerns while helping them differentiate their end products,” said Reza Kazerounian, senior vice president and general manager of Freescale’s Microcontroller Solutions Group. “The technology developments we’re announcing today will help address these issues and demonstrate our drive to remain at the forefront of embedded MCU innovation.”

Key Features of Freescale’s 90nm Thin Film Storage Flash

With the introduction of TFS technologies, Freescale can deliver the following benefits:

• industry leading bit-level reliability through revolutionary silicon nanocrystal technology;

• fast, low-voltage transistors that provide low-power read capability and help satisfy the increasing demands of power-sensitive applications with full flash operation specified down to 1.71 volts;

• flash access times of