

Fujitsu Semiconductor Widely Expands Lineup of 32-bit General Purpose Microcontrollers with the Release of Products Adopting 2 New ARM Cores

Delivering the industry's greatest number of products with the development of more than 700 microcontrollers featuring Cortex-M4/M3/M0+ cores

Yokohama, Japan, November 6, 2012 – Fujitsu Semiconductor Limited today announced the launch of the new FM4 Family of 32-bit general purpose RISC microcontrollers based on ARM® Cortex™-M4 processor core, as well as the new FM0+ family adopting the Cortex-M0+ core. It plans to release sample quantities of products in these new families starting in summer of 2013. Combined with current FM3 Family of microcontrollers, the group of products featuring the Cortex-M4, M3, and M0+ processor cores will amount to a lineup of not less than 700 different products, which, with a consistent architecture, flexibly and now even more broadly meet the growing customer need for higher performance and lower power consumption.

Fujitsu Semiconductor initially released its FM3 Family of 32-bit general purpose RISC microcontrollers based on the ARM Cortex-M3 processor core in 2010, and to date has developed 463 products within the lineup. While continuing to expand the FM3 Family with new products that feature high capacity flash memory and lower pin-counts, Fujitsu Semiconductor will further enhance its microcontroller lineup with the addition of two entirely new families starting from 2013, the FM4 Family and the FM0+ Family. The FM4 Family will cover the high-end product range, featuring higher performance and enhanced functionality, and will also feature DSP (Digital Signal Processor) and FPU (Floating-Point number processing Unit), which were not included in the FM3 Family. The FM0+ Family will cover the low-end product range, featuring more compact, energy efficient, and lower-leakage-current products compared to the FM3 Family.

By bringing new products to the market that feature the latest 3 types of Cortex-M processor cores, customers will not only be able to select products to suit a broader range of applications, but they will also be able to utilize the enhanced scalability of each core to smoothly transition from low-end to high-end equipment, or vice-versa.

Overview

The FM4 Family (New products)

The FM4 Family is based on the Cortex-M4 processor core, which features DSP and FPU functionality not included in the Cortex-M3 core, and has also received enhancements to the overall processing power of the CPU. Furthermore, while FPU is a core option, Fujitsu Semiconductor plans to equip all products in the FM4 Family with this feature. While continuing the abundant peripheral functions of the FM3 Family, the FM4 Family will be further strengthened with the addition of SDRAM and SD card interface functions, an expanded package lineup, and the addition of a wide range of timers and serial communications functions, all delivered with flash technology, which has a solid track record also in automotive applications. In addition to inverter control functions, various communication functions, CAN, USB2.0 and Ethernet support, the FM4 Family will also be equipped with high-speed serial communications functions, as well as high-speed, high-performance AD converters. These features make these

products ideal for motor controls and network controls in factory automation applications as well as inverters and other industrial equipment.

The FM0+ Family (New products)

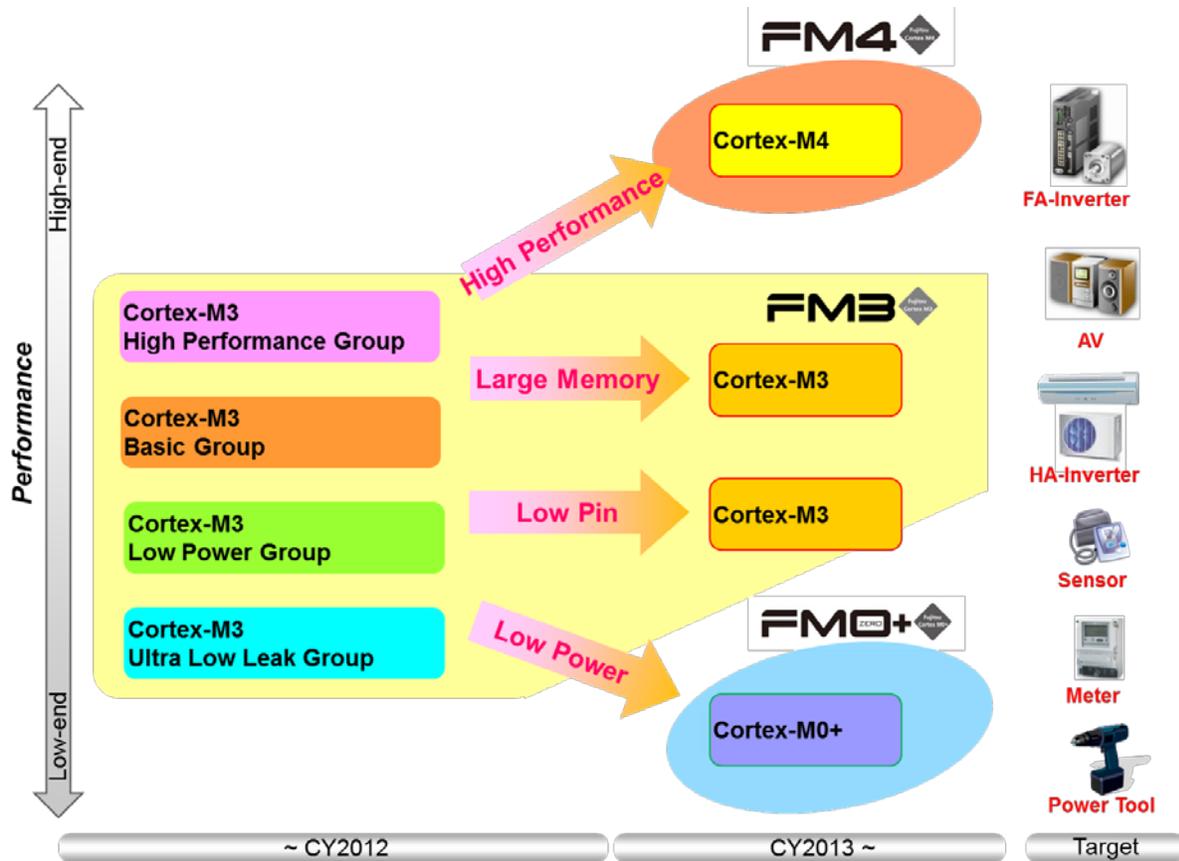
The FM0+ Family is a product group of energy efficient models employing a low-power Cortex-M0+ core and featuring the abundant peripheral functions of the FM3 Family, all delivered with flash technology. Compared to the previous Cortex-M0 core, the Cortex-M0+ core achieves 10% improved processing performance while consuming just two-thirds the power. Moreover, it is not just the core that is power efficient. Because functions that reduce power consumption are built into the microcontrollers, the lineup of products in this group is specialized to achieve low-power operation. The FM0+ Family targets maintaining an operating current of 70 μ A/MHz and a standby current of just 0.7 μ A (in RTC mode), making the products ideal for applications in instrumentation devices that require low-power consumption, such as battery-operated devices and electronic meters, as well as in a variety of sensor controls.

The FM3 Family (Enhancements to existing product line)

Fujitsu Semiconductor originally intended to expand its current lineup of 463 products in the FM3 Family to comprise over 500 products. Moving forward, however, it has revised its original estimate upward to include a total of 570 products by 2013. It will continue to utilize low-power technology, which is a key characteristic of the FM3 Family, to develop new products with features not in the existing lineup, such as products equipped with more than 1 megabyte of flash memory, as well as low-pin count models with minimal peripheral functions. In doing so, Fujitsu Semiconductor offers a range of products that are optimized for applications requiring low-power consumption and large memory capacity, such as AV equipment and multifunction printers, and also for applications that require space-saving technology, such as compact and modular devices.

Fujitsu Semiconductor is planning to develop the lineup of industry-leading 700 products or more with all three of the latest global standard core Cortex-M series, and is aiming to provide optimal solutions for a wide range of its customers' applications.

Product Roadmap



For More Information:

<http://jp.fujitsu.com/group/fsl/en/> (Fujitsu Semiconductor)

<http://www.fujitsu.com/global/services/microelectronics/product/micom/roadmap/industrial/> (microcontrollers, industrial)

About Fujitsu Semiconductor

Fujitsu Semiconductor Limited designs, manufactures, and sells semiconductors, providing highly reliable, optimal solutions and support to meet the varying needs of its customers. Products and services include microcontrollers, ASICs, ASSPs, and power management ICs, with wide-ranging expertise focusing on mobile, ecological, automotive, imaging, security, and high-performance applications. Fujitsu Semiconductor also drives power efficiency and environmental initiatives. Headquartered in Yokohama, Fujitsu Semiconductor Limited (formerly named Fujitsu Microelectronics Limited) was established as a subsidiary of Fujitsu Limited on March 21, 2008. Through its global sales and development network, with sites in Japan and throughout Asia, Europe, and the Americas, Fujitsu Semiconductor offers semiconductor solutions to the global marketplace.

For more information, please see: <http://jp.fujitsu.com/fsl/en/>

Press Contacts

Fujitsu Semiconductor Limited

Public Relations Department

Inquiry: <https://www-s.fujitsu.com/jp/group/fsl/en/release/inquiry.html>

Customer Contacts

Fujitsu Semiconductor Limited

MCU Solutions Business Unit

MCU Business Division

Marketing Department

Tel: +81-45-755-7036

Inquiry: <http://edevic.fujitsu.com/en-qform.html>

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