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Press release

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Next-Generation Embedded-Flash Microcontrollers from STMicroelectronics Drive Car Safety and Security to a New Level

Multi-core microcontrollers enable functional safety and encryption in automotive systems

Geneva, April 21, 2015 - STMicroelectronics (NYSE: STM), a global semiconductor leader serving customers across the spectrum of electronics applications and a top supplier of automotive ICs, today announced new members in its multi-core microcontroller (MCU) family aimed at making cars safer. These new devices are the first to be launched with ST's proprietary in-house 40nm embedded Flash process.

The new automotive MCUs combine compliance with the most stringent automotive safety standards[1], encryption for security, and increased memory size for the storage of vital programs and data, strengthening ST's product line of fault-tolerant microcontrollers for demanding applications throughout the car. These mission-critical applications include engine management, transmission, anti-lock braking, electric power steering, active suspension, and advanced driver assistance systems (ADAS).

"Security and functional safety compliance are essential to realizing cutting-edge high-reliability System-on-Chip ICs for mission-critical automotive applications," said Fabio Marchio, Group Vice President, General Manager of ST's Automotive Microcontroller & Infotainment Division. "Offering a simple and compelling upward-migration path from existing parts, our new automotive MCUs enable improved vehicle performance and economy with no compromises in security, while delivering savings in development by promoting hardware and software reuse."

[1] The ISO 26262 ASIL D functional safety standard defines the rules needed in order to avoid unreasonable risk due to hazards caused by malfunctioning of the complete electrical system. The microcontroller's role is extremely critical so all sections of the standard that are applicable have been evaluated for ST's automotive –safety devices.

Part of ST's Power Architecture™ single-chip 32-bit automotive-MCU family, the SPC58NE product line combines multiple high-performance dual-issue cores with up to 6MB Flash and 768kB internal RAM memory, eight CAN (Controller Area Network) interfaces, and an optimized peripheral set based on the end application. The multiple cores ensure redundancy in these most-important applications to meet the safety and security demands of vehicle manufacturers—and consumers.

The SPC58NE product line is currently available in BGA 292 and LQFP176 package configurations. KGD versions are also planned in the near future. Compliant with the ISO 26262 ASIL-D and EVITA Medium class, the SPC58NE84 is sampling now. For further information, including pricing, please contact your ST sales office.

Notes to Editors:

1. ST's in-house embedded Flash (eFlash) process technology builds upon the Company's 20-year expertise in embedded Flash. By moving to a smaller process geometry, ST has increased the density of Flash memory and peripheral functions that can be integrated on a single chip. Multicore MCUs built using ST's new 40nm process technology are able to support a maximum capacity of more than 16MB of on-board Flash memory.

2. While the need for security in cars has been in place for many years, development in this area now ensures security is a base ingredient of the system. Originally, automotive security was mostly localized to a few sub-systems, to protect electric-engine parameters stored in Flash from being modified. Automotive security is now becoming pervasive and, in some cases, is mandatory. Security now extends to the hardware security module (HSM) system, targeting EVITA (E-safety Vehicle Intrusion Protected Applications) Medium Class, which can be seen as an autonomous and isolated system, embedded into the microcontroller, handling all security operations.

About STMicroelectronics

ST is a global leader in the semiconductor market serving customers across the spectrum of sense and power and automotive products and embedded processing solutions. From energy management and savings to trust and data security, from healthcare and wellness to smart consumer devices, in the home, car and office, at work and at play, ST is found everywhere microelectronics

make a positive and innovative contribution to people's life. By getting more from technology to get more from life, ST stands for life.augmented.

In 2014, the Company’s net revenues were $7.40 billion. Further information on ST can be found at www.st.com.

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