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New Automotive Microcontrollers from STMicroelectronics Pave the Way to Smart Driving via More Secure and Connected Cars

- *Bring high performance, ruggedness, and safety to Car Body and Security applications*
- *Enable smarter, smaller, and lighter car gateways and body modules*

Geneva, May 11, 2016 – STMicroelectronics (NYSE: STM), a global semiconductor leader serving customers across the spectrum of electronics applications, has launched a new family of automotive microcontrollers that heralds the advent of more secure and connected cars.

This new family of power-efficient and real-time-capable MCUs brings the world's first Power Architecture™-based devices manufactured in state-of-the-art 40nm Flash technology dedicated to Car Body and Security applications. It is composed of three product lines; SPC58 B-Line, SPC58 C-Line, and SPC58 G-Line, which offer from 512KB to 6MB of embedded Flash memory.

The high level of scalability allows the [SPC58 family](#) to perfectly address the ever-growing need for in-car automotive networks with high bandwidth and strong in-vehicle security. The devices combine Ethernet and ISO CAN FD¹ communication interfaces with the latest Hardware Security Module (HSM) technology to ensure functional integrity of the car's Electronic Control Units (ECUs), intrusion detection, and protection against malicious attacks.

ST's in-house embedded Flash (eFlash) 40nm process technology is ideal to integrate high performance and outstanding automotive-grade reliability in very small packages, enabling car gateways and body modules to be smarter, smaller, and lighter.

"Building on the success of our SPC56 Automotive MCU family, which is widely used by Tier-1 and car manufacturers, the new SPC58 enables the automotive industry to raise the bar in security and in-car communications," said Fabio Marchio, General Manager Automotive Digital Division, STMicroelectronics. "The next generation of

¹ International Standards Organization, Controller Area Network, Flexible Data-Rate

smarter cars will rely on electronic systems based on MCUs that provide the best combination of performance, low power consumption, high security, and robustness. ST's SPC58 MCU lines meet all these needs, making them the leading solutions for next-generation in-car controllers."

The [SPC58 family](#), optimized for Car Body and Security applications, offers a highly scalable line of products with industry-leading benefits, including:

- ASIL-B (Automotive Safety Integrity Level) compliance;
- The highest number of ISO CAN-FD and Ethernet communication channels on the market;
- Double the performance of previous-generation solutions, thanks to the multi-core architecture, higher system frequency, and faster memory-access time;
- The state-of-the-art 40nm Flash technology enables high integration and performance in very small packages – as few as 32 pins;
- Perfect companion MCU for camera or telematics applications;
- Perfect solution for in-car stand-alone and integrated gateways;
- Assured security via the built-in HSM and related security firmware² that ensure the highest protection against malicious attacks;
- Option to support "Over the Air" (OTA) requirements allowing smart and wireless SW update;
- Easy portability of applications from SPC56 to SPC58, with high reuse of existing software, development tools, and hardware experience.

"Tomorrow's connected car will communicate with everything, from its internal systems such as transmission, advanced driver-assistance electronics, and front panel to roadside infrastructure, emergency services, and other cars. And it will have to provide the highest level of security," added Marchio. "The SPC58 Automotive MCUs, with their unique combination of performance, connectivity, security, and scalability, allow car makers and their sub-system suppliers to set new standards in ensuring a safer, greener, and more enjoyable driving experience."

The new products are part of a comprehensive ST strategy to offer products with embedded security functions that include stand-alone Secure Elements. Samples of the SPC58 B-, C- and G-Line MCUs have been provided to lead customers and full production is scheduled for Q1 2017.

² ST is a world leader in digital security technology, exemplified by the US National Institute for Standards and Technology (NIST) basing its latest SHA3 encryption technology on breakthroughs made by ST cryptographic experts.

About STMicroelectronics

ST is a global semiconductor leader delivering intelligent and energy-efficient products and solutions that power the electronics at the heart of everyday life. ST's products are found everywhere today, and together with our customers, we are enabling smarter driving and smarter factories, cities and homes, along with the next generation of mobile and Internet of Things devices.

By getting more from technology to get more from life, ST stands for life.augmented.

In 2015, the Company's net revenues were \$6.90 billion, serving more than 100,000 customers worldwide. Further information can be found at www.st.com.

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