

P3800S

Secure Microcontrollers from STMicroelectronics Bring Advanced Cyber Safety to Connected Cars

Tamper-proof microcontrollers qualified for automotive applications protect data privacy and system integrity

Geneva, February 22, 2016 – The 150-250 million connected cars expected on our roads by 2020 will be kept safe by chips like the latest secure microcontrollers from STMicroelectronics (NYSE: STM), a global semiconductor leader serving customers across the spectrum of electronics applications.

Internet connectivity will bring a multitude of services to vehicles and their owners, such as software updates, service packs, location-based information, social media, streaming entertainment content, and emergency support. This clearly brings forth the need to protect connected cars against Internet-based attacks that can steal personal data or compromise important vehicle systems.

ST's new secure microcontrollers (ST32G512A and ST33G1M2A) provide this protection by leveraging the company's market-leading secure-technology know-how, and are qualified to the stringent automotive quality standard AEC-Q100. In the connected car, the secure microcontroller handles authentication in a similar way to a smartphone's SIM. Additional security implemented by unalterable hardware in the ST33G1M2A allows use as an embedded Secure Element that provides a root of trust for preventing attacks on vehicle Engine Control Units (ECUs) and gateways. The ST33 family is already proven in applications such as NFC SIM and NFC embedded Secure Element.

ABI Research says more than half of in-vehicle cellular connections will be via permanently soldered embedded subscriber modules, or eUICCs, like ST's ST32G512A and ST33G1M2A secure MCUs. "A market leader in secure microcontrollers, ST is ideally positioned to provide the tamper-proof authentication needed to establish consumer confidence in connected vehicles and associated services," said Dominique Bonte, Managing Director and Vice President, B2B, ABI Research. "Robust security will be critical for autonomous and driverless vehicles, which will enable smart-mobility paradigms like car sharing and more generally transportation as a service, while lowering emissions and reducing congestion."

Marie-France Florentin, Group Vice President and General Manager, Secure Microcontroller Division, STMicroelectronics, added, “Connected-car technologies have tremendous potential to enhance quality of life and safety for drivers and their passengers. We are committed to providing the best security to protect users and support development of even more innovative concepts and services.”

In addition to connected-car applications, ST’s new secure MCUs are suitable for a variety of M2M communications in harsh environments, such as industrial networking and asset monitoring. Engineers can port software already qualified on compatible previous-generation devices (ST32/ST33), to streamline development and reduce time to market.

Further Technical Information:

The ST32G512A and ST33G1M2A satisfy major standards governing cellular subscriber modules, including ISO 7816 electrical connections. The ST32G512A is based on the ARM® Cortex®-M3 32-bit core with a hardware Data Encryption Standard (DES) accelerator that helps optimize application performance. The chip provides 512KB of user Flash memory.

The ST33G1M2A is a proven Secure Element built on the ARM SecurCore® SC300™ 32-bit core, and meets the extremely high Common Criteria (CC) EAL5+ security evaluation making it tamper resistant against physical and logical attacks. This high level of certification is recommended by the GSM Association (GSMA) to enable remote provisioning and management of eUICCs in Machine-to-Machine (M2M) devices, which are not easily reachable. Advanced security features include hardware security-enhanced DES and AES accelerators, and a NESCRIPT coprocessor for public key cryptography. It has 1280KB on-chip user Flash, which is more than 25% larger than competing devices, and so provides extra storage to manage connections to multiple cellular networks.

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.

PR Contact

STMicroelectronics

Michael Markowitz

Director Technical Media Relations

+1 781 591 0354

michael.markowitz@st.com