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NFC Reader IC and 8-bit Microcontroller from STMicroelectronics Adopted by Rohm for Qi Automotive Wireless Charging Design

Geneva, January 16, 2019 -- STMicroelectronics (NYSE: STM), a global semiconductor leader serving customers across the spectrum of electronics applications, announced that its automotive NFC Reader IC ([ST25R3914](#)) and its automotive 8-bit microcontroller ([STM8AF](#)) have been chosen for the Qi-compliant automotive wireless charging reference design from Rohm. Contactless communication based on NFC is already in extensive use for functions such as mobile payment by smartphone and in recent years, NFC use has been rapidly widening from mobile devices to industrial equipment, IoT devices, and even automotive systems.

The automotive wireless charging module reference design from Rohm, for which they've selected ST's NFC Reader IC and 8-bit MCU, is based on the BD57121MUF-M, a Qi-standard 15-W wireless charger IC being developed by Rohm that aims to increase the adoption of wireless charging in the center console of the vehicle. One benefit of ST's technology contribution is to enable the sophisticated control that makes possible the detection of contactless smart cards in proximity to the charging system in order to halt the charging immediately. This important and appreciated function prevents the failure of those cards due to the strong magnetic field generated by the Qi transmitter.

ST's automotive NFC Reader IC, the ST25R3914, is an AEC-Q100 grade 1 qualified NFC analog front-end device supporting ISO14443A/B, ISO15693, FeliCa™, and active P2P. Its best-in-class RF performance and its unique Automatic Antenna Tuning function dynamically adapting to challenging metallic environments make it the perfect fit for automotive applications. It comes with a MISRA-C: 2012-compliant RF middleware which helps to shorten the time required for software development.

The automotive 8-bit MCU from ST, STM8AF, provides high performance, wide-ranging choice for memory size, and many package options, contributing to more flexible automotive systems. The MCU features true data EEPROM, CAN and LIN bus, and high

operating temperature support up to 150°C. In combination with the NFC function, it can also be used as a controller to manage new types of automotive NFC applications, such as Bluetooth® / Wi-Fi pairings for smartphones, “infotainment” using NFC verification, and engine start-up.

“Rohm’s adoption of the ST NFC products and 8-bit microcontroller for their Qi-standard automotive wireless-charging reference design shows that ST’s broad product lineup has big potential for creating new and valuable automotive functions,” said Hiroshi Noguchi, Japan country manager, STMicroelectronics. *“We anticipate many auto manufacturers will see wireless charging as an important added value that will provide ST with another way to contribute to a more comfortable driving experience for consumers.”*

ST and Rohm will demonstrate this Qi-standard automotive wireless charging reference design in their booths at the Automotive World 2019 (Tokyo, Jan 16 – 18, 2019).

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 2017, the Company’s net revenues were \$8.35 billion, serving more than 100,000 customers worldwide. Further information can be found at www.st.com.

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