Press release
Communiqué de presse
Comunicato stampa
新闻稿 ／ 新聞稿
プレスリリース
보도자료

T4340S

STMicroelectronics Powers Wireless-Charging Growth with Secure Solution for Consumer and Automotive Qi-certified Chargers

- ❖ *ST's security expertise is protecting the wireless-charging market and users' equipment by authenticating genuine Qi-certified chargers*
- ❖ *STSAFE secure elements are loaded with Qi charger certificates and secure keys at ST secure factories*
- ❖ *Customers get ready-to-use secure elements based on Common Criteria EAL5+ certified chip*

Geneva, Switzerland, June 21, 2021 – STMicroelectronics (NYSE: STM), a global semiconductor leader serving customers across the spectrum of electronics applications, is protecting wireless charging of small devices and mobiles with a convenient solution for authenticating certified Qi chargers.

Wireless charging, enabled on an increasing variety of smartphones and wearables, is creating opportunities for innovations that offer extra value for users. These include furniture with built-in charging pads, cars that position the charging pad to keep mobiles safely out of reach while driving, and easy charging in hospitality locations such as cafes and restaurants. Chargers must be properly designed to protect consumers' products, particularly in high-power, fast-charging modes. The Qi logo is awarded after testing and certifying in accordance with the WPC-Qi specifications.

"*ST is helping wireless charging thrive by providing a secure way to authenticate genuine Qi-certified chargers before increasing the charge at any power level over five Watts,*" said Laurent Degauque, Marketing Director, Secure Microcontroller Division, STMicroelectronics. "*Our solutions compliant with WPC-Qi specification V1.3 are based on ST secure elements certified Common Criteria EAL5+ and AEC-Q100 for automotive.*"

STSAFE secure elements are loaded with official Qi Certificates and provide authentication that leverages state-of-the-art cryptography. The solutions clearly identify the charger and strictly attest to its authenticity as a Qi-certified product.

As an official Manufacturer Certification Authority Service Provider, ST has the authority to compute and to sign the official Qi Charger certificate that contains both the charger Qi-ID and maker reference. The STSAFE-A110, and STSAFE-V110 for automotive applications, are loaded at a secure ST factory, creating a ready-to-use solution that relieves the charger makers from the burden of loading the sensitive data securely.

The STSAFE is trusted in millions of consumables, connected devices and secure automotive peripherals worldwide to authenticate devices to protect branded products, and connected assets.

For consumer markets, STSAFE-A110 is available in 4mm x 5mm SO8N or 2mm x 3mm UFDFPN8 packages. For the automotive market, STSAFE-V110 is available in TSSOP20 package.

Further Technical Information

The STSAFE IC family provides common functions and services to ensure end-to-end security optimized for consumables, connected devices and automotive peripherals. It relies on state-of-the-art security audited by independent security authorities and it is certified Common Criteria EAL5+ AVA_VAN 5.

STSAFE-A110 and STSAFE-V110 consist of a secure operating system executed on a secure microcontroller. They offer authentication based on ECDSA asymmetric cryptography and X509 certificates containing a unique serial number.

For Qi authentication, they are preloaded with the appropriate cryptographic key and the official Qi Certificate corresponding to the customer's Qi charger.

The STSAFE-V110 is certified according to automotive standard AEC-Q100 grade 2.

Users can also take advantage of a comprehensive STSAFE-A110 ecosystem to support product development and ease integration of the STSAFE-A110 with the application host system, including ST's STM32* microcontroller family, and devices such as ST's STWBC2 digital controller for wireless battery charger transmitters.

To kickstart development, the X-NUCLEO-SAFEA1A expansion board for STM32 Nucleo boards contains an STSAFE-A110 IC ready to use with the X-CUBE-SAFEA1 software package and X-CUBE-SBSFU secure boot and software update expansion package.

STM32 is a registered and/or unregistered trademark of STMicroelectronics International NV or its affiliates in the EU and/or elsewhere. In particular, STM32 is registered in the US Patent and Trademark Office.

About STMicroelectronics
At ST, we are 46,000 creators and makers of semiconductor technologies mastering the semiconductor supply chain with state-of-the-art manufacturing facilities. An independent device manufacturer, we work with more than 100,000 customers and thousands of partners to design and build products, solutions, and ecosystems that address their challenges and opportunities, and the need to support a more sustainable world. Our technologies enable smarter mobility, more efficient power and energy management, and the wide-scale deployment of the Internet of Things and 5G technology. Further information can be found at www.st.com.

For Press Information Contact:
Michael Markowitz
Director Technical Media Relations
STMicroelectronics
Tel: +1 781 591 0354
Email: michael.markowitz@st.com