



life.augmented

P4587S

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

STMicroelectronics collaborates with indie Semiconductor to enhance in-car wireless charging privacy and security

Supporting latest Qi specifications and certified to highest common-criteria (CC) assurance level, ST's new STSAFE-V secure element has been chosen by indie Semiconductor for in-car charger reference design

Geneva, Switzerland, November 29, 2023 – STMicroelectronics (NYSE: STM), a global semiconductor leader serving customers across the spectrum of electronics applications, has introduced the STSAFE-V100-Qi secure element to strengthen privacy and security when charging car occupants' portable devices. ST also revealed its collaboration with indie Semiconductor (Nasdaq: INDI), a pure-play automotive semiconductor company, to integrate the new secure element in indie's Qi wireless in-car charging reference design.

ST's new IC enables in-car charging to meet the latest Wireless Power Consortium (WPC) specifications, which call for protection by a secure element. It is also certified to the highest level of security applicable for Qi chargers, common criteria (CC) EAL4+, ensuring heightened cybersecurity protection.

ST's secure element families are proven to protect the confidentiality, integrity, and authenticity of information and devices in security-conscious applications such as banking, ticketing, and identity protection, and in this Qi wireless-charging reference design, contribute to optimized charging and safety in an automotive application.

Customized for Qi charging at ST's factory, the [STSAFE-V100-Qi](#) also supports secure boot, secure storage, and secure software update. This extra safeguarding strengthens protection against risks such as remote tampering, counterfeiting, and copying. Designed with secure software updates, the IC ensures a high level of security for the life of the vehicle.

"indie's advanced Qi standards-based wireless charging silicon solutions enhance the overall in-cabin user experience, bringing convenient portable device charging to vehicles across all segment classes," commented Fred Jarrar, Vice President and General Manager of indie Semiconductor's Power and USB product lines. *"ST's secure element brings the highest level of cybersecurity protection to our reference design, enabling brand protection for our automotive customers and safety, security and reassurance for vehicle occupants."*

"By integrating our STSAFE-V100-Qi, the reference design meets the latest WPC specification and Common Criteria EAL4+ to assure protection of charging devices at up to 15W," said Laurent Degauque, Marketing Director, Connected Security, STMicroelectronics. *"As a result, indie's customers benefit from a powerful combination of a high-quality charging system with the highest level of security."*

The STSAFE-V100-Qi is sampling now to lead customers and will enter full production in Q4 2023. Please contact your ST sales office for pricing options and sample requests.

For more information, please go to www.st.com/en/secure-mcus/stsafe-v100-qi.html.

Further technical information

ST secure element ICs and secure processors can work with or replace software-based security, introducing hardware that cannot be fraudulently changed. They leverage ST's expertise in techniques such as secure storage for electronic keys, accelerating cryptographic algorithms, securing software boot-up, secure firmware updates, and protection against physical attacks.

indie's reference design accelerates the development of efficient and robust wireless charging systems optimized for the in-cabin automotive environment. It features indie's [iND87200 wireless-charging IC](#), with an industry-leading level of semiconductor integration, reducing the bill of materials by almost half compared to discrete implementations. The iND87200 also simplifies WPC Qi compliance.

ST's secure element protects the customer's intellectual property by preventing unauthorized access to application code and ensures electrical safety and data privacy for end-users' devices while charging. The reference design also contains ST's ST25R3920B automotive-qualified near-field communication (NFC) reader, which handles pairing and NFC card protection in Qi chargers.

Special capabilities of indie's iND87200 wireless-charging IC include an integrated boost converter to maximize charge area and maintain consistent charging power up to 15W. Additionally, integrated advanced power-sensing circuitry monitors system impedance and phase in real-time in addition to the typical voltage and current sensing. This advanced feature lets system designers optimize tuning and algorithms to enable more intelligent features such as adaptive foreign object detection not otherwise possible in less integrated implementations.

Notes to Editors:

- Developed by the Wireless Power Consortium, **Qi** is an open, universal interface standard for wireless power transfer using inductive charging.
- The Common Criteria for Information Technology Security Evaluation (CC) ensure that competent and independent licensed laboratories are able to determine the extent to which products fulfil security properties under defined assurance levels (EALs). **EAL4+** indicates a product is methodologically designed, tested and verified, at a level of assurance and vulnerability resistance suitable for applications like Qi charging in cars, which require a high level of security.

About STMicroelectronics

At ST, we are over 50,000 creators and makers of semiconductor technologies mastering the semiconductor supply chain with state-of-the-art manufacturing facilities. An integrated device manufacturer, we work with more than 200,000 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 cloud-connected autonomous things. We are committed to achieving our goal to become carbon neutral on scope 1 and 2 and partially scope 3 by 2027. Further information can be found at www.st.com.

For Press Information Contact:

Michael Markowitz
STMicroelectronics
Tel: +1 781 591 0354
Email: michael.markowitz@st.com