

STSAFE-V100-Qi

Authentication solution for in-vehicle WPC Qi wireless charging



STSAFE-V100-Qi secure element ensures user security and convenience by authenticating certified Qi chargers in cars

STSAFE-V100-Qi is a turnkey solution for securing Qi chargers in cars that is compliant with WPC Qi specifications.

Embedded in the vehicle's center console, this system on chip authenticates genuine Qi-certified chargers to protect your devices during fast charging.

ST offers a scalable portfolio of automotive-grade secure solutions, including the STSAFE-V100 family of dedicated solutions designed for the automotive ecosystem. STSAFE-V100-Qi is a highly secure authentication solution based on ST33K-A secure element hardware, certified CC EAL6+.

KEY FEATURES & BENEFITS

- Turnkey System-on-Chip solution
- AEC-Q100 Grade 2 qualified
- Hardware CC EAL6+ certified
- Compliant with WPC V1.3 specifications
- Digital signature generation and verification
- Secure end-to-end chain of trust

ADDED SECURITY FEATURES

- Secure storage capability
- Secure boot
- Software update

KEY APPLICATIONS

- Highly reliable flash memory
- Easy integration
- Supply chain reliability
- Tailored and optimized for Qi wireless charging in automotive applications

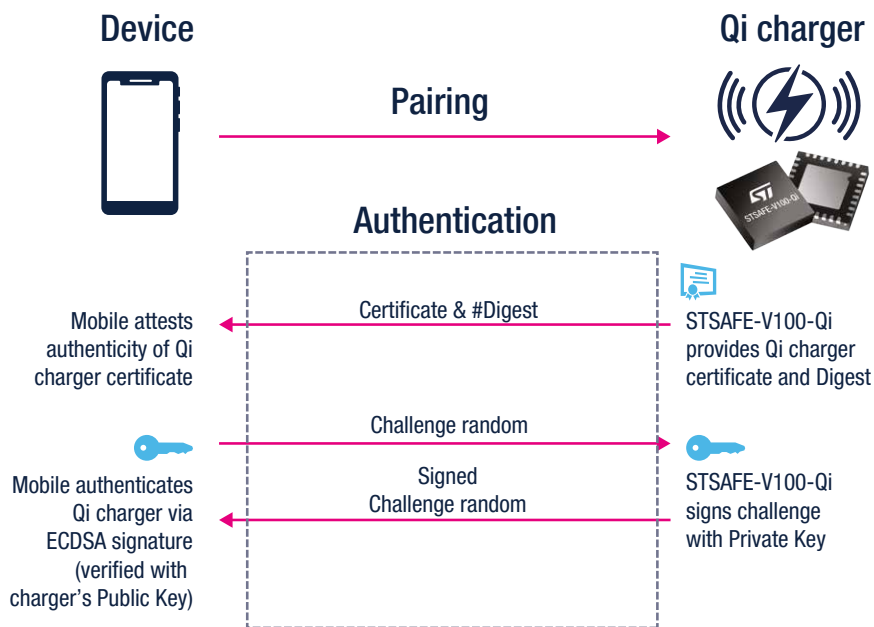
A cost-effective and high-performance authentication solution for in-vehicle Qi charging

Designed to protect Qi wireless chargers against cloning or counterfeiting, the STSAFE-V100-Qi is compliant with the Qi WPC wireless charging specification, and provides proof that the mobile device is connected to a recognized system, thereby protecting it against potential damage related to counterfeit chargers.

The STSAFE-V100-Qi secure element embedded in the Qi charger is loaded with certificates signed by the WPC certificate authority in ST's secure manufacturing sites.

The STSAFE-V100-Qi is a secure MCU based on smart card technology, which incorporates the ARM® Cortex®-MP35P processor for secure embedded systems with additional security features to help protect against advanced forms of attacks.

Authentication protocol for Qi chargers



Product portfolio

Order code	OS support	Interface	Certification	Package	Operating Temperature Range
STSAFE-V100-Qi	WPC 1.3 compliant	I ² C or SPI	HW CC EAL6+ & AEC-Q100 grade 2	UFQFPN32, TSSOP20 (optional)	-40°C to +105°C

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