



SECURE ELEMENTS & AUTHENTICATION ICs FOR AUTOMOTIVE APPLICATIONS

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TECHNOLOGY SUITABILITY

Physical Security

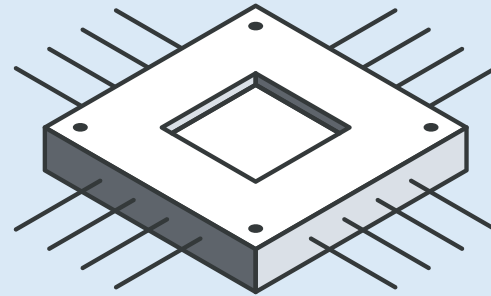
- Tamper resistance
- Hardware isolation

Secure Elements

- Multi-purpose

Cryptographic Material

- Secure storage
- Secure management



Supported Applications

- Secure boot
- Authentication
- Identification

Authentication IC

- Single application

Certification

- CC EAL4+
- AEC-Q100

Capabilities

- Flexible
- Updatable

AUTOMOTIVE APPLICATIONS

① Electric Vehicles

- ISO 15118 Plug and Charge standard
- Open Charge Point Protocol

② Wireless Charging Pads

- WPC Qi Wireless specification (1.3+)

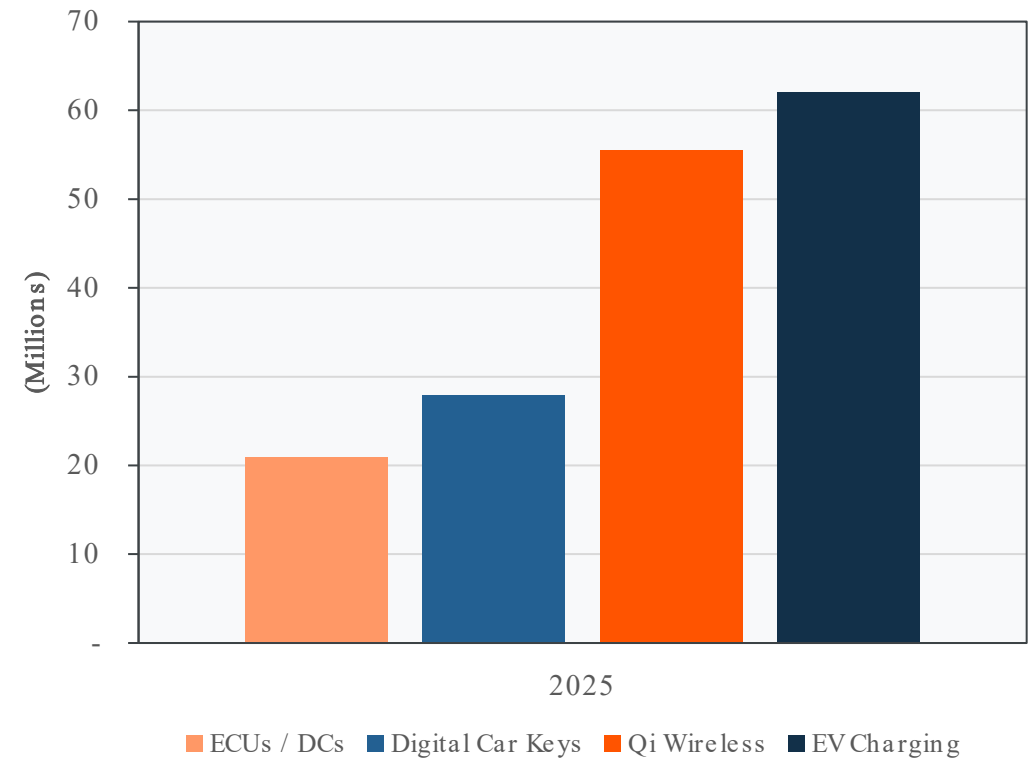
③ Digital Car Keys

- CCC Digital Key specification (3.0)
- China ICCE & ICCOA

④ Electronic Control Units (ECUs)/Data Centers (DCs)

- Advanced Driver-Assistance Systems (ADAS), Battery Management Systems (BMS), in-vehicle communications, Vehicle-to-Everything (V2X)

Automotive SE & Auth SE Shipments by Application
World Markets: 2025



VENDOR ECOSYSTEM

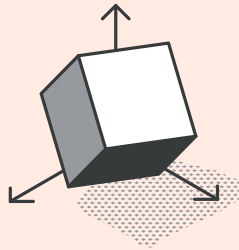
Global



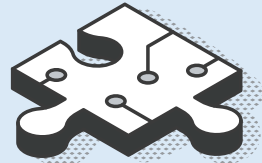
China



MARKET OUTLOOK



Dynamic &
fast-growing
market



Good
functionality
& flexibility



Boosted by
new industry
specification



High
applicability
for functional
safety

THANK YOU

Michela Menting, Senior Research Director



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