



## Secure automotive solutions



#### Secure automotive applications

## Digital key system



- Secure car access
- NFC door & console readers
- In-vehicle SE
- CCC R3 implementation

## Wireless device charging



- Safe phone charging
- Trusted authentication
- NFC card protection
- WPC Qi 1.3, Qi2 compliant

## Electric vehicle charging



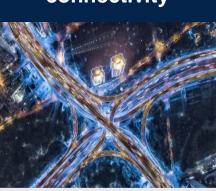
- EV Plug & Charge
- Trusted authentication
- ISO 15118 implementation

#### Secure infotainment



- Secure data & password storage
- Applet verification

## In-car security & connectivity



- eSIM (emergency call)
- V2X



#### A complete offer for trusted & connected cars



#### Making driving smarter and safer



SE hardware



SE systemon-chip



NFC reader

- Ensure secure car access to authorized users
- Ensure secure engine start
- Ensure confidentiality and integrity of sensitive data
- Ensure secure communication & infotainment systems

#### **INTEGRITY**

- Root of Trust
- Platform integrity
- Secure firmware update

#### **CONFIDENTIALITY**

- Secure communication
- Secure storage

#### **AUTHENTICATION**

- Device compatibility
- Brand protection



#### ST solutions for automotive security

## **ST33-A**Tamper-resistant hardware



- Secure MCU for SE & eSIM
- AEC-Q100 & CC EAL6+ certified
- Available in 3 delivery forms
- Set of software libraries

#### STSAFE-V SoC solution based on ST33-A



- Digital key for car access & start
- WPC Qi, EV charging
- Secure in-vehicle infotainment
- Secure network connectivity

#### **ST25**

High-performance NFC reader



- Digital key for car access & start
- NFC card protection
- NFC Forum & CCC compliant
- Supporting requirements of major phone OEM



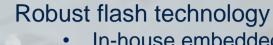
## Security & Connectivity solutions by application

	Security			Connectivity
	Hardware	System-on-chip		NFC
	ST33-A	STSAFE-V100	STSAFE-V500	ST25
Digital key			<b>✓</b>	<b>✓</b>
Qi charging		<b>√</b>	<b>√</b>	<b>√</b>
EV charging		<b>✓</b>	<b>✓</b>	<b>√</b>
Infotainment			<b>✓</b>	
eSIM				



#### ST33-A hardware secure MCU overview





- In-house embedded Flash 80 & 40 nm
- Target low ppm without HW wear leveling
- Continuous Improvement Program (CIP) strategy

Proven field quality with more than a billion ST33 MCU deployed

Set of software libraries (cryptography & flash management)

Certified Common Criteria EAL6+ Automotive grade (AEC-Q100 grade 2 and 0)

#### STSAFE-V solution overview

#### Family of scalable secure solutions for connected vehicles



#### ST25R NFC readers overview

#### High-performance NFC readers for an enhanced user experience



#### Secure automotive solutions takeaways



# Our technology starts with You



