

# eGovernment & eID

## Flexible and Secure Solutions



### A secure and complete product portfolio

Today, governments across the world recognize secure MCUs as a key tool in protecting international security and personal data, reducing fraud and improving services and information for citizens.

STMicroelectronics offers the optimum combination of security and functionality to governments and industry partners. ST's proven silicon technology, its world-class in-house manufacturing capabilities, and its experience as one of the long-standing leaders in this market, make the Company the ideal partner for large scale deployments.

#### INDUSTRIAL LEADER

- Proven and advanced technologies down to 40nm
- Strong R&D investments
- Best in class services
- Flexible & independent manufacturing

#### QUALITY & SECURITY

- Extended life time to support Government requirements
- 1st ever to reach CC EAL6+ certificate
- CC certified sites (development & production)

#### PRODUCT PERFORMANCES

- 32-bit ARM® SecurCore® SC000™
- Flash technology to support very large memory size and flexibility.
- Multiprotocol interfaces (ISO 7816, ISO 14443 A&B, ISO 18092) including VHBR
- Advanced Contactless performances
- Contact, contactless and dual interface products

#### TYPICAL APPLICATIONS

- eGovernment applications: ePassport, National eID, eDriving License, eHealth or eSocial cards, eResidence Permit, eSignature, eVoting
- other eID applications: access control management, frequent traveller programs, eSignature



## eID PRODUCT PORTFOLIO

ST has developed a complete range of highly secure MCUs to cover every aspect of largescale, government-level programs. The IC's are based on advanced 80 nm EEPROM and Flash technologies to bring more flexible capability with same level of security and reliability to Governments and citizens.

## KEY REFERENCES

ST's offer is based on over 20 years of hands-on, secure-MCU roll-out experience with governmental organizations worldwide –serving most of the ePassport, national ID, Health cards and Driving License programs. Today, more than 40 Government institutions have adopted ST solutions to secure National Identity projects.

In addition to those large-scale government programs, ST's products have also been introduced in private sectors as frequent traveller programs or companies access cards (PKI).

## ST PLATFORM: CUTTING-EDGE SILICON SOLUTIONS FOR SECURE E-GOVERNMENT APPLICATIONS

The products dedicated to identity applications meet the growing demand for secure cryptographic ICs, with high-speed interfaces, and large memory capacity. They integrate an enhanced crypto-processor (Nescrypt) that supports BAC (basic access control), EAC (extended access control), SAC (supplemental access control) and AA (active authentication). ST platform implements very fast e-passport transactions in less than 3 seconds, and is compliant with the last eIDAS European regulation .

The world's first secure microcontroller to achieve EAL6+ according to the Common Criteria 3.1 methodology is an ST's IC !

## SECURE MCUS FOR IDENTITY APPLICATIONS

Type	Part number	Core	RAM (Kbytes)	Flash/other NVM (Kbytes)	Cryptography	Interface
Contact	<b>ST31H128</b>	32-bit ARM SC000	12	128	EDES+, AES, RSA, ECC	ISO 7816, IART
Contact	<b>ST31H256</b>	32-bit ARM SC000	12	256	EDES+, AES, RSA, ECC	ISO 7816, IART
Contact	<b>ST31H320</b>	32-bit ARM SC000	12	320	EDES+, AES, RSA, ECC	ISO 7816, IART
Dual*	<b>ST23ZR08</b>	8/16-bit ST23	4	8 EEPROM + 92 ROM	EDES+, AES	ISO 7816, IART, RF ISO 14443 A/B/B'
Dual*	<b>ST31G256</b>	32-bit ARM SC000	14	256	EDES+, AES, RSA, ECC	ISO 7816, IART, RF ISO 14443 A/B/B', ISO 18092 passive mode, VHBR
Dual*	<b>ST31G320</b>	32-bit ARM SC000	14	320	EDES+, AES, RSA, ECC	ISO 7816, IART, RF ISO 14443 A/B/B', ISO 18092 passive mode, VHBR
Dual*	<b>ST31G384</b>	32-bit ARM SC000	14	384	EDES+, AES, RSA, ECC	ISO 7816, IART, RF ISO 14443 A/B/B', ISO 18092 passive mode, VHBR
Dual*	<b>ST31G480</b>	32-bit ARM SC000	14	480	EDES+, AES, RSA, ECC	ISO 7816, IART, RF ISO 14443 A/B/B', ISO 18092 passive mode, VHBR

(\*) contact & contactless, contact only or contactless only available versions

## SYSTEM ON CHIP

ST and its different OS partners are offering complete solutions covering existing worldwide e-ID standards that provide the most advanced transaction performances and security certifications. These solutions (native and java) support such applications as e-passports, resident permits, digital signatures, PKI, driving licenses, e-health, biometric ID, and more.

## PACKAGING

ST offers secure MCUs in wafer form factor and advanced micromodules (contact, dual and full contactless down to 250 µm total thickness) combining integration and security. All these packages are ECOPACK versions, compliant with the European directive 2002/95/EC relating to restrictions on hazardous substances (RoHS).



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