

Product Brief

MTCOS ePass & eResidence Permit on SLE 78

Benchmark solution for electronic travel documents

Travel documents around the world become electronic and governments take the chance to enhance their processes in terms of convenience and security. With MTCOS ePass & eRP Infineon offers a plug and play solution enabling governments to efficiently roll out high performance electronic travel documents. Its newest family member on SLE 78 with Very-High-Bit-Rate claims SESAMES 2013 as the fastest ePassport of the world.

ePass & eResidence Permit

ePassports & eResidence Permits are crucial governmental tools to grant eligible persons access to a country. For electronic travel documents, standard compliance and interoperability is key as they have to operate flawlessly in international travel. The applications are based on established ICAO standards and the underlying communication protocols are defined by ISO. Infineon is known for its thorough standard compliance giving governments the trust that the products will operate reliably in the hands of the citizens.

Highest performance for fast transactions

Electronic travel documents usually carry rather large biometric data sets such as photos or fingerprints. These data has to be processed and transmitted in the document production and at border controls. Performance is key for efficient personalization and short transaction times at the border. MTCOS ePassport & eResidence Permit is setting new industry standards in this respect, e.g. an EAC data set of 54 kB can be personalized in less than 5 seconds and read out at border control in less than 2.5 seconds. Using Very-High-Bit-Rate technology the performance for complete SAC inspection breaks world record less than 1 second.

Certified and long-lasting security

MTCOS ID is based on Infineon SLE 78 security controllers with Integrity Guard – the new standard for long lasting secure eGovernment. These CC EAL 5+ certified controllers feature an unrivaled full encryption of the data path. Even within the CPU, data is only processed in encrypted form.

Key features

Customer benefits

- › High performance ePassport increases border control efficiency
- › Integrated hardware and software security for long-lasting > 10 years ePassport document
- › Easy extension to multiple applications without additional cost
- › State-of-the-art SAC ePassport features from independent provider are perfect fit for modern ID projects
- › World-wide references and local customer support

ePassport features

- › Common Criteria certified according to protection profiles BSI-CC-PP 55 (BAC), and BSICC-PP 56v2 (EAC, SAC)
- › ICAO 9303 and attachments
- › BSI TR-03110 v1.11 and v2.10 PACE
- › BSI TR-03105-2/3.1/3.2
- › ICAO SAC TR testspec V1.3
- › ISO/IEC 14443 type A & B
- › TDES
- › AES up to 256 bits
- › RSA up to 4096 bits
- › Elliptic curves up to 512 bits

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Digital error detection over the complete data path is completed by two CPUs that continuously monitor each other's operation. The operating system is certified CC EAL 4+ in the BAC, EAC and SAC ePassport configurations.

Broad portfolio for government solutions

MTCOS ePass & eResidence Permit is part of a family of products, that use MTCOS on Infineon chip card controllers and that will be supported in the future in new technologies. Available in different configurations and hardware, the family provides tailored solutions for government projects ranging from basic configurations up to highest feature requirements in various settings. Different memory configurations from 36 KB up to 128 KB are at hands to store all ICAO mandatory data groups (picture, fingerprints, keys & certificates for EAC) as well as optional ones (holder signature, supplemental biometrics or country specific extensions). On request, project specific adaptations are possible to cover specific requirements – ready for personalization to decrease handling and personalization costs.

Easy deployment & smooth integration

MTCOS ePass & eResidence Permit is supported by tools for demo personalization, script execution and file system creation as well as libraries for easy integration in personalization environments. Integration into backend processes is easily possible through third party middleware that supports MTCOS. Supporting both standardized contactless communication types (ISO/IEC 14443 type A and type B), MTCOS ePass & eResidence Permit enables integration with readers from all vendors. MTCOS ePass & eResidence Permit comes with a four step irreversible life cycle model, which gives maximum flexibility in document management, enabling different actors to initialize and personalize the document. Secure transactions are used in the personalization process, reducing the restrictions for the personalization facilities. MTCOS ePass & eResidence Permit is available in all Infineon standard packages for government ID projects (dual interface, contact less and contact based) that have proven their reliability in governmental projects around the world.

Product configuration¹⁾

Product	User memory [KB]	Interfaces	Protocols	Algorithms
SLN 52GLA128AM	128	CL type A and type B	BAC/SAC/AA/EAC	AES, TDES, RSA, ECC
SLN 52GLA080AM	80	CL type A and type B	BAC/SAC/AA/EAC	AES, TDES, RSA, ECC
SLN 52GLA036AM	36	CL type A and type B	BAC/AA	AES, TDES, RSA, ECC

1) MTCOS with VHBR is available as demo

Infineon and MaskTech

MTCOS ID combines the strengths of two of the most prominent platforms in the government ID market worldwide: Infineon is an innovative and long-standing supplier of hardware-based secure ID solutions, leading the chip card controller market for 15 consecutive years. 150 reference projects across all government ID applications, covering 75 percent of the world's population, trust Infineon's solutions.

MaskTech is an independent German embedded software supplier specialized in government applications. MaskTech has sold more than 100 Million licenses of its Common Criteria certified MTCOS operating system that are used in more than 50 countries.

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