OPTIGA™ Trust M

Secured cloud service provisioning – the easy way!

Cloud services and AI are driving a wave of innovative applications. The number of devices connected to these applications is growing, presenting great opportunities – but also increased security risks.

Responding to a growing focus on embedded systems amongst attackers, Infineon offers the OPTIGA™ Trust M solution, a high-end security controller optimized for connected devices. It provides extremely flexible, high-performance, secured access to any major cloud provider for industrial and building automation, smart home and consumer applications.

– **Secured zero-touch provisioning**
The OPTIGA™ Trust M takes the secured connectivity to the cloud to the next level. It provides secured, fast, and easy access to any major cloud service provider thanks to pre-personalized certificates. The massive leap in performance creates the best possible user experience.

– **Easy integration**
Integration made fast and easy – the turnkey set-up with full system integration minimizes your design, integration and deployment effort. A cryptographic toolbox and protected I2C interface are just two examples that will simplify your work.

– **Future-proof security**
Certificates that exceed their lifetime need to be revoked. OPTIGA™ Trust M certificates can be securely updated in the field. OPTIGA™ Trust M gives every IoT device its own identity. Certificates and key pairs are securely stored in OPTIGA™ Trust M from the very beginning, with key pairs securely injected in Infineon's secured factory.

– **Performance**
Do you need to improve the performance of your device? OPTIGA™ Trust M helps – connecting your device to the cloud up to ten times faster than a software-only solution.

– **MIT licensed software**
Open source advantage – OPTIGA™ Trust M host software and documentation are available on GitHub. Benefit from direct support from developers as well as updates on new versions and features.

Offering ease of integration and a wide range of security features, OPTIGA™ Trust M is the solution of choice for all your embedded projects.

Key features[1]

– Based on CC EAL 6+ (high) certified hardware
  – ECC: NIST curves up to P-521, Brainpool r1 curve up to 512
  – RSA® up to 2048
  – AES key up to 256, HMAC up to SHA-512
  – TLS v1.2 PRF and HKDF up to SHA-512
  – TRNG/DRNG
– I2C interface with shielded connection
– Hibernate mode for zero power consumption
– USON-10 package (3 x 3 mm)
– Standard and extended temperature ranges: -40 to + 105°C
– Up to 10 kB user memory
  – Protected updates
  – Usage counters
  – Dynamic object (e.g. credentials) locking
– Configurable device security monitor
– Lifetime of 20 years for industrial and infrastructure applications
– Cryptographic ToolBox commands for SHA-256, ECC and RSA® Feature, AES, HMAC and Key derivation
– MIT licensed software framework on GitHub github.com/Infineon/optiga-trust-m

1) Features apply to latest product version

Open source

www.infineon.com/OPTIGA-Trust-M

	Easy integration	– Turnkey solution for fast and easy system integration – Zero-touch provisioning – unique credentials preprogrammed per chip – Open source code available on GitHub
	Performance	– Up to 10 times faster connection to the cloud than software-only solutions
	Flexibility	– Fast and easy access to any cloud provider thanks to pre-personalized certificates
	Enhanced security	– Based on CC EAL 6+ (high) certified hardware – Advanced asymmetric cryptography (ECC & RSA) in a single-chip solution – AES128-CCM encrypted communication between the host and the security controller

Product summary

Type	Description	Temperature range [°C]	Package
SLS32AIA010MK	Embedded security solution for connected devices	-25 ... +85	USON-10
SLS32AIA010ML	Embedded security solution for connected devices	-40 ... +105	USON-10
Evaluation kit	OPTIGA™ Trust M Shield	–	Board

OPTIGA™ Trust family of products
OPTIGA™ Trust M is part of Infineon's OPTIGA™ Trust family, a full range of embedded security solutions targeted at connected devices.

Infineon's OPTIGA™ family consists of products and solutions for securing embedded systems. All products are based on secured hardware and software. The overarching product family also includes the OPTIGA™ TPM (Trusted Platform Module) line targeted at embedded designs requiring Trusted Computing Group (TCG) compliance.

Having led the security market for almost 30 years and shipped more than 27 billion security controllers worldwide, Infineon continues to build on its strong expertise to turn security into a success factor for your business.

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