Product Brief

OPTIGA™ Trust B SLE95250
Authentication solution for improved security and reduced system costs

Counterfeit products can seriously compromise the end-user experience and may harm investments made by system manufacturers and Original Equipment Manufacturers (OEM). Therefore, it is becoming more and more important for manufacturers to safeguard the value of their brands and their investments into product technology.

Basic authentication solution
OPTIGA™ Trust B is a robust cryptographic solution for embedded systems requiring easy-to-integrate, reliable authentication features. This security solution is designed to help system and device manufacturers safeguard the authenticity, integrity and safety of their original products. As a turnkey solution, it provides enhanced protection against aftermarket counterfeit replacements, thus helping to maintain OEM authenticity and safeguard the user experience.

Enhanced security
Using strong cost efficient asymmetric cryptography, the OPTIGA™ Trust B can easily identify unauthorized batteries, accessories, replacement parts or disposables and trigger an appropriate measure. In addition, the life span counter recognizes unauthorized re-use or re-provisioning of original parts.

Fast and easy integration
Building on Infineon’s proven embedded security portfolio, OPTIGA™ Trust B is a turnkey solution that includes host-side software and a single-wire host interface to minimize integration efforts. The size-optimized new TSNP-6 package offers a very small footprint of only 1.1 x 1.5 mm. OPTIGA™ Trust B thus fits into every device, no matter how small, from ear-plugs of flip covers to industrial machines and robots.

Key features
- Strong cost efficient asymmetric cryptography with ECC 131-bit key length
- OPTIGA™ Digital Certificate (ODC) with device personalization (unique key pair per chip)
- Turnkey solution including host-side software for easy integration
- 512 bit user NVM
- Easy-to-implement single-wire host interface
- Size-optimized TSNP-6-9 package (1.1 x 1.5 mm)

Customer value
- Lower system costs due to single-chip solution
- Increased security with asymmetric cryptography and chip-individual keys
- Easy integration thanks to full turn-key design

Applications
- Battery authentication
- IoT edge devices
- Consumer accessories
- IP & PCB design protection
- Original replacement parts
- Medical & diagnostic equipment

www.infineon.com/optiga-trust
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**Improved security**
- With cost optimized asymmetric elliptic curve authentication principle
- With uniqueness provided by chip individual key part

**Lean and easy connectivity with single wire interface**

**Optimized system cost with 1 chip solution**

**Easy integration due to full turn key solution**

**Extra small foot print with TSNP-6-9 package**

**OPTIGA™ Trust family of products**

OPTIGA™ Trust B is part of Infineon’s OPTIGA™ Trust family, which offers a full range of embedded security products to meet all device authentication needs. Other members of the OPTIGA™ Trust family are:

- OPTIGA™ Trust E SLS 32AIA, a high-end security solution to protect high-value goods and industrial applications
- OPTIGA™ Trust P SLJ 52ACA, a Java Card based programmable solution with extensive use case support

Infineon’s OPTIGA™ family is geared towards the protection of embedded systems. All products are based on secured hardware and software. In addition to OPTIGA™ Trust products, the family also includes the OPTIGA™ TPM (Trusted Platform Module) lineup for embedded applications that require TCG (Trusted Computing Group) compliance.