

OPTIGA™ Authenticate On

The ideal anti-counterfeiting solution for mobile device batteries

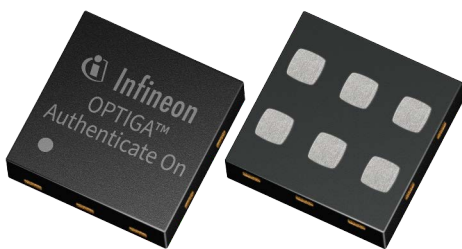
Counterfeits are a growing concern for consumers and brand owners

Counterfeit mobile batteries and accessories can pose health and safety risks for consumers, also potentially seriously damaging brand reputation and jeopardizing business continuity. Establishing product authenticity across the supply chain and at the point of use can be challenging. OPTIGA™ Authenticate solutions meet these challenges by giving smart “things” a secured and unique ID (“identity of things”) to verify their authenticity. They are suited to all sorts of disposables and spare parts.

OPTIGA™ Authenticate On – optimized for the authentication of mobile device batteries

OPTIGA™ Authenticate On is the ideal authentication solution for mobile device batteries. It is designed to be seamlessly integrated into even the smallest phone or tablet batteries without compromising performance or reliability.

OPTIGA™ Authenticate On is a one-package solution which includes a diode for bus powering. This not only simplifies the manufacturing process, but also reduces the bill of materials, making it an attractive option for manufacturers looking to streamline their operations and reduce costs. In addition, OPTIGA™ Authenticate On follows the MIPI (Mobile Industry Processor Interface Alliance) specifications, which allow for easy implementation and integration into existing systems. With OPTIGA™ Authenticate On, users can enjoy peace of mind knowing that their batteries are protected against unauthorized access and manipulation.



Key features

- 2 authentication modes (one-way and mutual)
- Message authentication code for mutual authentication
- 2 lifecycle counters with ECC termination structure
- 2 ECC 163-bit key pairs and 193-bit ODC
- Asymmetric cryptography with secured unique IDs
- Infineon’s proprietary protection against reverse engineering (PRE)
- Secured personalization option (Common Criteria Certified environment)
- Lockable 2-kbit NVM sizes
- Infineon’s single wire serial communication (MIPI-BIF)
- 500 kbps single-wire interface
- Host code software support – with highly portable software library
- Capless low dropout (LDO) regulator for each chip
- Pre-integrated diode
- 1.24–3.63 V
- Max. 500 μ A current consumption
 - Temperature range -40 to 85°C
 - 1.5 x 1.2 x 0.4 mm PG-TSNP-6-16 package

PRODUCT BRIEF

Rich set of customization options

OPTIGA™ Authenticate On offers two authentication modes, two separate lifecycle counters, a wide temperature range, and one communication profile (SWI), making it easy to find the right fit for your requirements.

Effortless implementation

OPTIGA™ Authenticate On is a turnkey solution that offers full system integration support including embedded software and host software, as well as an OPTIGA™ Authenticate On evaluation kit with full support documentation, based on PSoC™ 6 microcontrollers for better speed and performance. All keys are pre-loaded, which further simplifies the implementation process.

Freedom to design

With a package of only 1.5 x 1.2 x 0.4 mm, OPTIGA™ Authenticate On is optimized for all mobile device batteries and accessories, eliminating the need to impose size restrictions during product design.

Security to rely on

OPTIGA™ Authenticate On offers enhanced hardware security with an extended key length, asymmetric cryptography with a secured unique identity for each chip, and protection against reverse engineering. All key and certificate provisioning is carried out in Infineon's CC-certified environment.

Key benefits

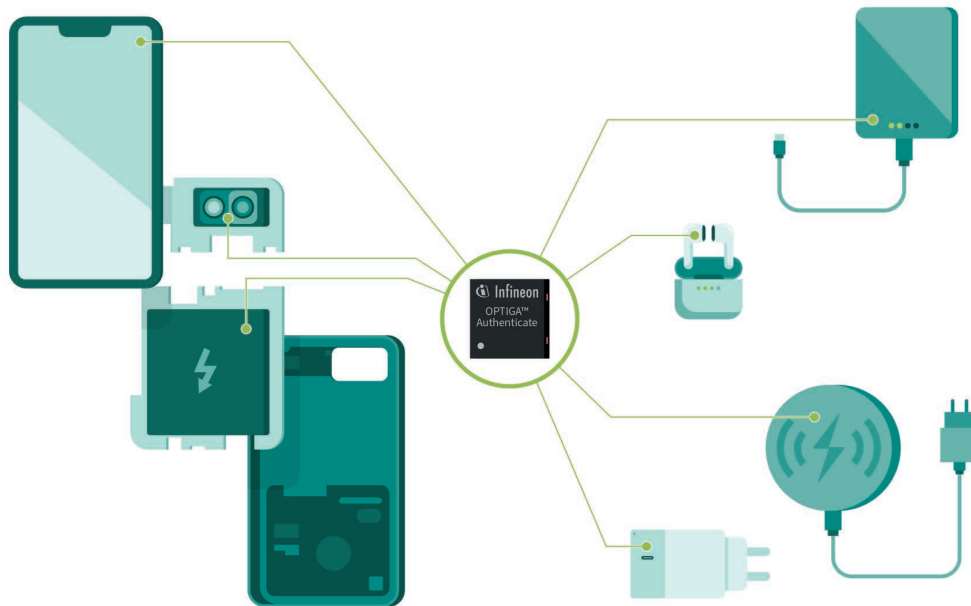
- Tailored to mobile device batteries
- Easy to implement
- Robust authentication
- Incredibly small dimensions
- Reduced bill of materials
- Effortless configuration
- Seamless integration
- Security to rely on

Product summary

Sales code	Temperature range [°C]	Package	Application area
SLE95668-0002 (2 kbits)	-40 to 85	PG-TSNP-6-16	Mobile device battery authentication
SLE956681-0003 (2 kbits)	-40 to 85	PG-TSNP-6-16	Mobile device battery authentication with host authentication

PRODUCT BRIEF

Components in a smartphone ecosystem can be replaced. OPTIGA™ Authenticate On enables the identity of new components to be verified.



The OPTIGA™ Authenticate family – verifying the authenticity of devices to enable trust

The OPTIGA™ Authenticate product family meets the challenges associated with counterfeit products by giving smart “things” a secured and unique ID (“identity of things”) to verify their authenticity so users can trust them. Reaching beyond batteries, these all-in-one, turnkey device authentication solutions are ideal for all sorts of disposables and spare parts ranging from filters, purifiers, and cartridges to complex industrial systems.

OPTIGA™ Authenticate solutions are suited to all anti-counterfeit challenges. They combine robust authentication with unprecedented levels of configuration flexibility to build consumer trust through reliable quality and performance. They also safeguard OEM brand value and business models by protecting against fakes.

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