PRODUCT BRIEF

OPTIGA™ Connect Consumer OC1230

World's tiniest and first 28 nm GSMA compliant eSIM solution optimized for mobile consumer devices

OPTIGA™ Connect Consumer OC1230 is the world's smallest GSMA-compliant eSIM solution and the world's first 28 nm eSIM. It comes with a rich feature set optimized for mobile consumer devices, all of which makes it the perfect fit for even the tiniest mobile consumer devices like smart watches and other wearables.

High-end hardware in miniaturized form factor optimized for consumer devices

The ultra-small chip-scale packaging measuring 1.8 x 1.6 x 0.4 mm reduces PCB space requirements by a typical factor of 30 relative to a standard SIM slot. OPTIGA™ Connect Consumer OC1230 is also available in X2QFN20 (3.0 x 3.0 x 0.3 mm) package.

25% better performance/power ratio for extended device battery lifetime

OPTIGA™ Connect Consumer OC1230 offers increased performance while consuming less power. It is the first eSIM in the market with a 1.2 V operating mode. In combination with low power standby modes this offers best-in-class eSIM power consumption. The security architecture is based on Arm® v8 and Infineon's Integrity Guard 32 technology, enabling a 25% performance/power ratio gain and thus extending the lifetime of the device's battery.

Rich new feature set for improved end user experience and global connectivity

OPTIGA™ Connect Consumer significantly improves the end user experience with new features like remote SIM provisioning (RSP) and multiple SIM profiles (MEP) – both compliant with GSMA SGP.22 v3. Users can download and store several mobile network operator profiles and remotely activate multiple profiles simultaneously. The ability to host several eUICC certificates (e.g. GSMA and Chinese TAF) allows to deploy devices on a worldwide scale with a single SKU.

The large memory (up to 1.1 MB) provides ample space for multiple network operator profiles along with additional applications and user data.

OPTIGA™ Connect Consumer OC1230 implements all relevant specifications issued by GSMA, TAF, trusted connectivity alliance and 3GPP to offer full 5G compliance.

OPTIGA™ Connect Consumer OC1230 supports ISO7816 and SPI as physical interfaces for easy integration with multiple baseband or application processors. Infineon offers also Local Profile Assistant (LPA) reference implementations for Android and several embedded platforms.

Key features

- Ultra-small footprint (< 3 mm²)
- Interoperable with worldwide commercial eSIM services
- Remote SIM Provisioning (RSP) and multiple enabled profiles (MEP) compliant with GSMA SGP.22 v3
- Following GSMA & TAF standards
- SOTA/OS patching
- Up to 1.1 MB free memory for MNO profiles, applications, and data (add. applets integrable)
- GSMA eUICC Security Assurance (eSA) scheme certified
- Post-quantum cryptography (PQC) ready
- Compliant with 2G, 3G, 4G, 5G networks
- Voltage classes: C (1.8 V), D (1.2 V)
- Interfaces: ISO7816, SPI
- WLCSP (1.8 x 1.6 x 0.4 mm) and X2QFN20 (3.0 x 3.0 x 0.3 mm) packages
- Temperature[1]: -40 to +85°C
- Data retention: 10 years

1) Temperature range depending on product configuration

Key benefits

- Ultra-small footprint (< 3 mm²)
- Faster execution time
- 25% better performance/ power ratio
- Up to 1.1 MB free user memory
- Extended battery lifetime
- Future-proof security platform
- Easy integration
- Full interoperability
- Improved end user experience



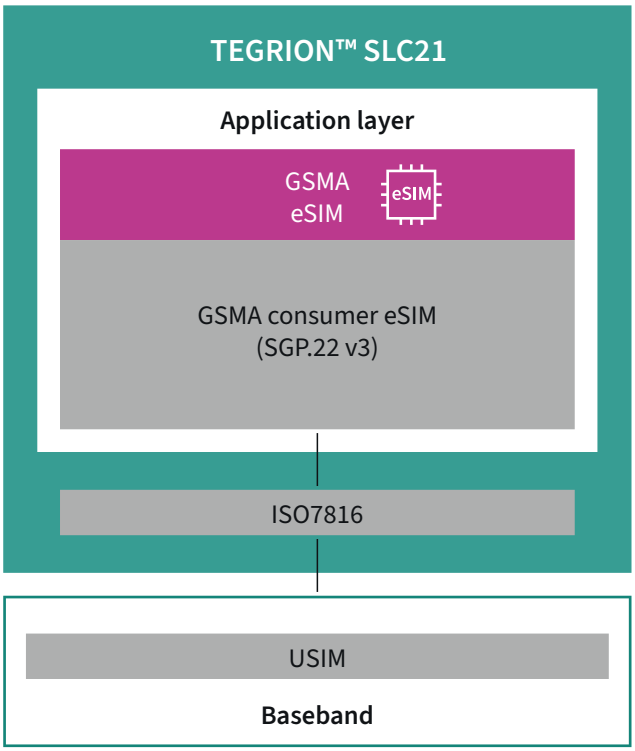
www.infineon.com/OPTIGA-Connect-Consumer

Future-proof security that is PQC-ready
OPTIGA™ Connect Consumer OC1230 is GSMA eUICC Security Assurance (eSA) scheme certified, https://www.gsma.com/solutions-and-impact/industry-services/wp-content/uploads/2024/05/GSMA-CB-TS-23-RSP00118-01-Cert.pdf

OPTIGA™ Connect Consumer OC1230 is post-quantum cryptography ready.

Much more than an eSIM
In addition to GSMA consumer eSIM functionality the OPTIGA™ Connect Consumer OC1230 supports the integration of additional applications which makes it the perfect device to host security applications.

Please contact your technical support for more information on additional features such as:
– Android Ready SE
– Interfaces (e.g. I^3C, SWP)



Product variants and target markets

Product name (certification)	Package	Applications
OC1230-1015WLB16 (GSMA)	SG-XFWLB-16-1 (chip scale package)	Handsets, wearables, tablets, laptops
OC1230-1015X2QFN20 (GSMA)	PG-X2QFN-20-1	

Published by
Infineon Technologies AG
Am Campeon 1-15, 85579 Neubiberg
Germany

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Public

Version: V2.0_EN
Date: 03/2025

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