Valid

QUICK DATASHEET

IoT eUICC

SL22 Variant



This datasheet provides an overview of the hardware and software capabilities of Valid's IoT eUICC solution based on **Infineon's Tegrion™ SL22 platform**. It summarizes the key features of the Consumer, Industrial, and Automotive variants, as well as the capabilities of Valid's eSIM operating system, designed to support **GSMA SGP.32** requirements and enable secure remote SIM provisioning for IoT deployments.

01 Hardware Description

Common Features

- **FLASH:** Up to 1.8 MByte SOLID FLASH™ NVM (also available in 1.2 and 1.5 MB)
- **RAM:** 48/64/**96 kB RAM**
- **ROM:** 32 KB
- **Voltage: Class D (1.2V)**, Class C (1.8V), Class B (3V) and 3.3V power supply
- 32-bit ARM® V8 extended by the ARM Trustzone with **2 KB + 8 KB cache**
- **Internal clock up to 100 MHz**
- Advanced power saving modes
  - Deep sleep mode: up to 100 µA
  - **Stand-by mode: up to 30 µA**
- **Supported interfaces:** UART, I2C Controller, I2C/I3C Target, ESSC (SPI Slave), and GPIO
- **Cryptographic accelerator:** RSA, ECC, DES, AES, SM4, **PQC** (ML-KEM, ML-DSA)
- **Certification level:** CC EAL 6+ and FIPS 140-3

Specific Chip Features

SLC22 Consumer grade	**SLM22** Industrial grade	**SLI22** Automotive grade
- 25°C to + 85°C	- 40°C to + 105°C	- 40°C to + 105°C
10 years data retention	10 years data retention	17 years data retention

*All product grades support up to 200.000 erase/write cycles

Delivery Forms

	Wafer	MFF2	MFF3	Plugin
SLC22	✓	✓	✓	✓
SLM22	✓	✓	✓	✓
SLI22	—	✓	✓	—

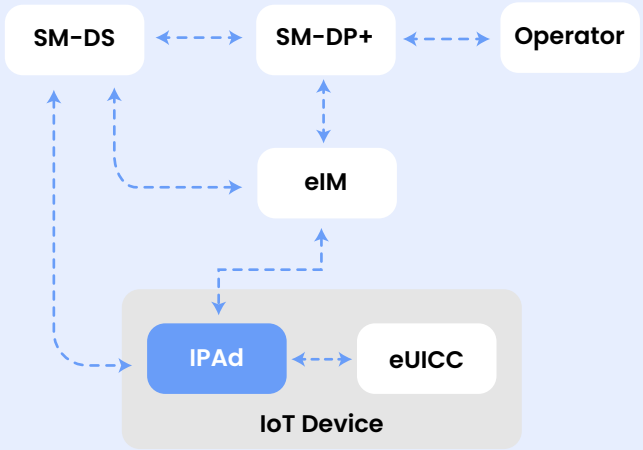
02

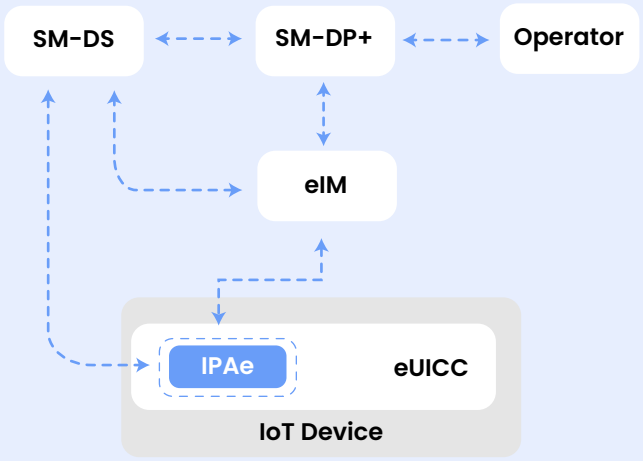
Software Description

As a product compliant with GSMA Specifications, the product is ready to be deployed in the **GSMA Remote SIM Provisioning IoT ecosystem.** This ecosystem is designed to enable the remote provisioning and management of IoT subscriptions stored on the eUICC through a subscription management service. The service is based on 5 elements: the SM-DP+ (Subscription Manager - Data Preparation), the SM-DS Subscription Manager – Discovery Server), the eIM (eUICC Remote Manager), the IPA (IoT Profile Assistant) and the eUICC, as represented in the following diagram.



Architecture Variants





Software Features

- **GSMA's eUICC based on the latest version of SGP.32**
- Transversal Applications support
- **OS Update**
- Perso On Wafer
- Release 15
- 5G
- Suspend command support
- ISIM
- CSIM
- **~500 KB user data** when using the 1.5 MB version of the chip
- Java Card 3.0.5
- GP v2.3
- Amendment B
- DNS RESOLVER Rel 12
- EAP
- CAT-TP
- GBA
- MBMS
- OTA
- **Includes local functionalities** (for local profile management)
- **IPAe supporting both ASN.1 and JSON**

Certifications

- GSMA eSA (eUICC Security Accreditation)
- Common Criteria EAL6+
- FIPS 140-3
- GlobalPlatform
- Java Card 3.0.5
- GSMA SAS-SM certified production environment