

Integrated SIM (iSIM) for Consumer Electronics

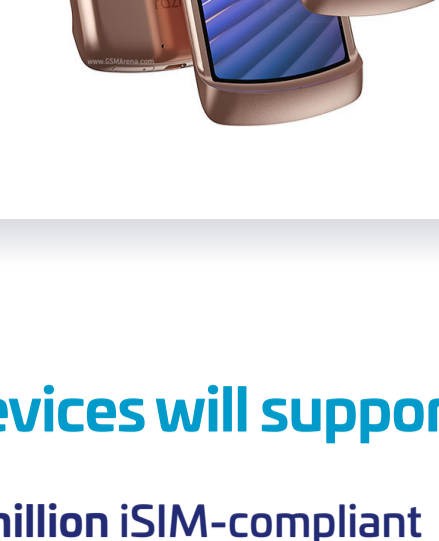


1 Connected devices are the innovation hub of the consumer world

End users want sleek, powerful and power efficient devices

Device makers challenges:

- Lower power consumption
- Optimized BoM¹ and space
- Ease of testing & enablement
- Improved security for new services



¹ Bill of Material

2 How many consumer devices will support iSIM

Counterpoint Research forecasts 488 million iSIM-compliant consumer devices in 2025



Source: Counterpoint Research (January 2021)

(*) includes laptop, tablets, XR devices and drones

3 How many mobile operators have launched or plan to launch consumer eSIM services

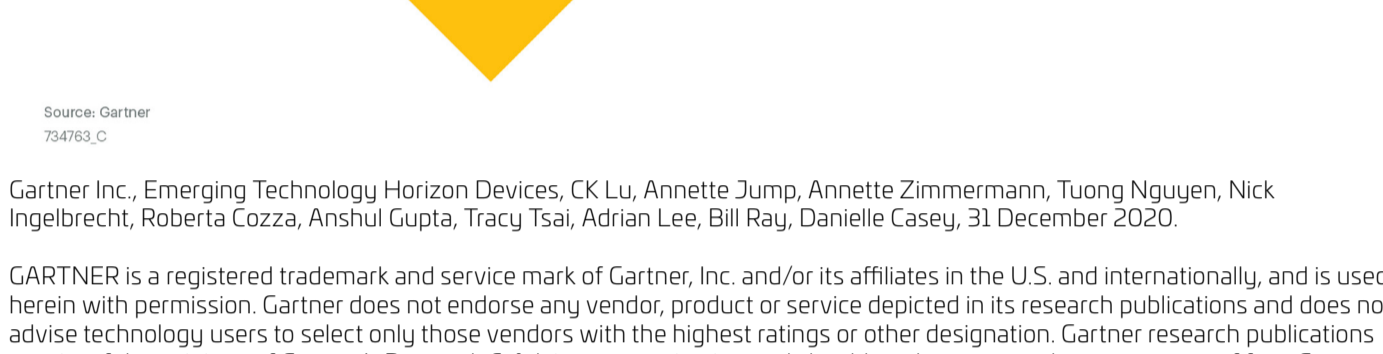
iSIM relies on largely deployed eSIM infrastructure



Source: Thales

4 eSIM is going mainstream

The eSIM is among the 9 emerging technologies horizon for mobile connected devices



Source: Gartner 794763, ©

Gartner Inc., Emerging Technology Horizon Devices, CK Lu, Annette Jump, Annette Zimmermann, Tuong Nguyen, Nick Ingelbrecht, Roberta Cozza, Anshul Gupta, Tracy Tsai, Adrian Lee, Bill Ray, Danielle Casey, 31 December 2020.

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5 What an integrated SIM (iSIM) is

It's a new **eSIM form factor** – built as a **trusted area (TRE²)** – into a **multi-function chip (SoC³)**

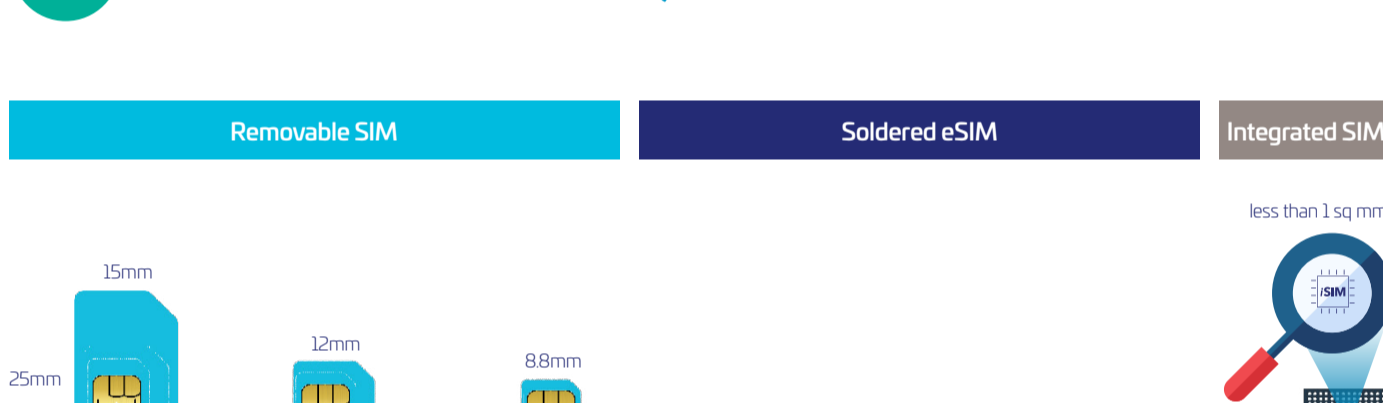
Just like eSIM, it provides a **secure vault** for storing **mobile subscription details** (e.g. credentials to connect to the mobile network...) into a **trustful digital format**

eSIM It also leverages the SoC advanced capabilities (e.g. computing capacity, speed, power consumption...)

iSIM is **standardized** and recognized by industries bodies (GSMA, 3GPP, Trusted Connectivity Alliance, ETSI, Eurosmart...)

It is fully compatible with 2G, 3G, 4G and 5G

iSIM for Consumer Electronics⁴ can be used into any cellular consumer device (smartphone, smartwatch, connected PC, tablet...)

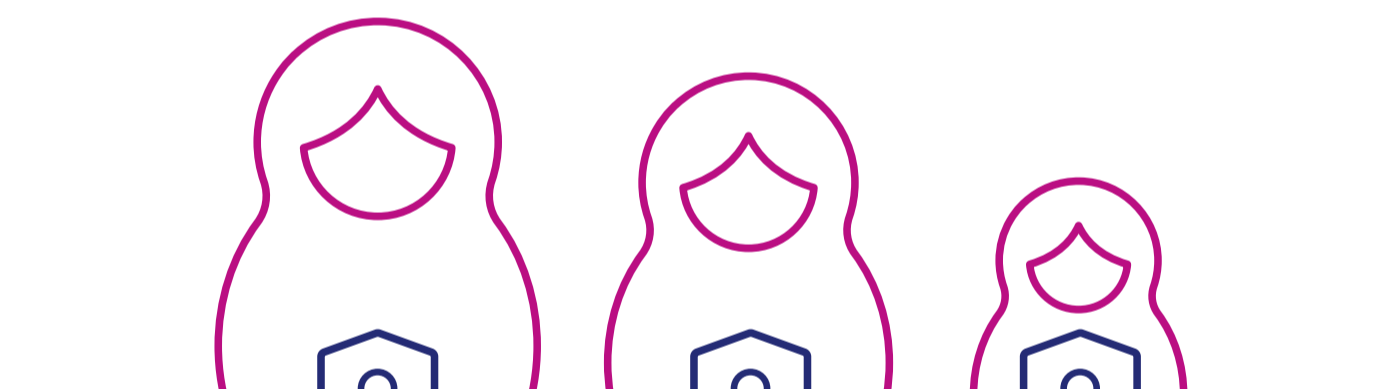


² A Tamper Resistant Element (TRE) is a secure enclave integrated in a SoC [source: Trusted Connectivity Alliance]

³ A System on a Chip (SoC) is an integrated circuit (also known as a 'chip') that integrates all or most components of a computer or other electronic system [source: Wikipedia]

⁴ iSIM can also be found in IoT and M2M devices

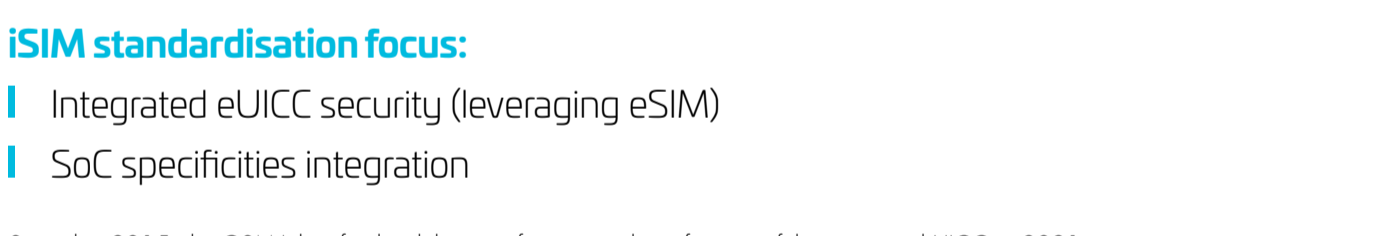
6 From rSIM to eSIM, to iSIM



ENERGY CONSUMPTION (decreasing trend from Mini SIM to iSIM)

7 iSIM and security: ensuring business continuity

iSIM is subject to the same security certification as eSIM



The iSIM is fully standardized and endorsed by the industry



iSIM standardisation focus:

- Integrated eUICC security (leveraging eSIM)
- SoC specificities integration

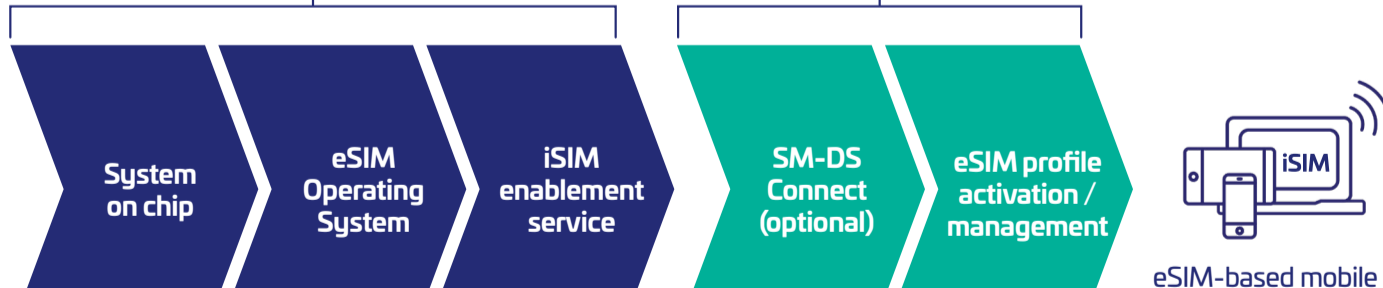
Started in 2015, the GSMA has finalised the specification and certification of the integrated UICC in 2021

8 The iSIM is as interoperable as eSIM

iSIM is subject to the same interoperability tests as eSIM

- Compliant with Trusted Connectivity Alliance interoperable profile specification
- Tested according to GSMA's eSIM compliance program
- Validated with mobile operators' eSIM infra (profiles, eSIM management platforms)

9 3 steps to activate iSIM in Consumer Electronics devices



Logos for THALES and SoC partner are shown next to the steps.

10 5 steps to enable subscriptions in iSIM consumer devices



Logos for THALES and SoC partner are shown below the steps.

11 The 7 benefits of an iSIM

- Simplify the integration of mobile connectivity into new connected devices
- Free up space on Printed Circuit Board for new features and ultra-flat & waterproof device design
- Leverage existing eSIM ecosystem
- Provide same hardware-based security as eSIM
- Ensure complete life cycle management of subscription and eSIM OS software
- Ensure lower energy consumption
- Reduce device Bill of Material