SMAOT501B 5G UICC SIM Card

on eXtra one on IO209 CC EAL5+

SMARTJAC
Identity Everywhere

SIM

Micro SIM

Nano SIM

Ready for 5G deployments

Driven by the exponential data traffic growth and customers increasing expectations for speed, 5G will make connectivity ultra- fast seamless and secure. New 5G SIM card "SMAOT501B" brings another level of enhanced Security & Privacy to mobile users

Be ready from Day one

Offering 5G QoS and QoE from day one. Maximize monetization of bunch of new services. Being compliant with Privacy regulation policy to ensure subscribers un-traceability. Protecting Brand reputation Those are some of main challenges that Smartjac's SMAOT501B 5G SIM card is here to help

Our offer:

Seamless 5G Access & Being in control of 5G Security

The SIM card is the only way to authenticate to the 5G network. SMAOT501B offers 5G configuration to allow smooth and seamless access to 5G services.

Protecting subscriber's Privacy & Brand Reputation

SUCI, the encrypted IMSI is used to access the 5G network. SMAOT501B embeds the two required privacy crypto algorithms and offers dynamic control for the network operator to activate or deactivate subscriber Privacy at any time. It allows also the configuration of the the network operator's preferred encryption scheme and selection of where SUCI processing shall take place: either in a phone (i.e. untrusted environment) or in the SIM (i.e. The network operator's trusted environment)

Prioritization of Services & Control of user QoS & QoE
A new Unified Access Control (UAC), Steering of Roaming (SoR) and Access agnostic management over WiFi or 3GPPP access are enabled by the SMAOT501B. It allows The network operator to monitor user QOS & QoE and to prioritize services based on: partnership agreement, deployment scenarios and subscriber profiles. (e.g. multimedia, IoT, public safety or private network services)

Benefits

Protecting mobile subscriber Privacy:
SMAOT501B allows IMSI encryption (i.e. SUCI) to better protect end-users against location tracking and interception of mobile communications

Providing secure and fast access to 5G:
SMAOT501B allows faster and smooth,5G connection and reconnection, including WiFi while protecting end user privacy and The network operator credentials and reputation
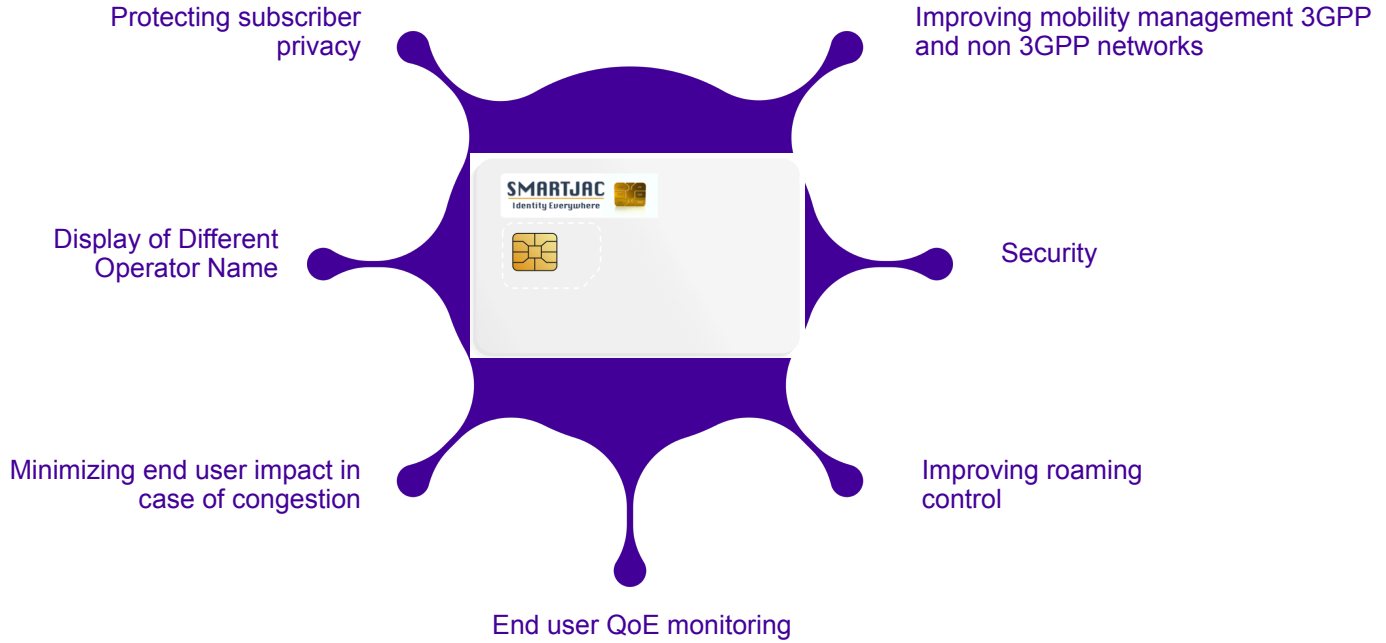
CC EAL5+ for Powering high security service and application
SMAOT501B allows The network operator to set up services and applications requiring certification of common criteria with high level security and fast HW processing

Why SMARTJAC?

Trusted by the largest network companies worldwide, with high presence in standards, and strong understanding of the ecosystem SMARTJAC provides Security expertise fitting needs for 5G Deployment and challenges in labs, test networks, PLTE's and CBRS networks.

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How it works?

Protecting subscriber privacy

Improving mobility management 3GPP and non 3GPP networks

Display of Different Operator Name

Security

Minimizing end user impact in case of congestion

Improving roaming control

End user QoE monitoring

5G Profile: 9 new Services & 10 new Files

Service n°122	5GS Mobility Management Information
Service n°123	5G Security Parameters
Service n°124	Subscription identifier privacy support
Service n°125	SUCI calculation by the USIM
Service n°126	UAC Access Identities support
Service n°127	Control plane-based steering of UE in VPLMN
Service n°128	Call control on PDU Session by USIM
Service n°129	5GS Operator PLMN List
Service n°130	Support for SUPI of type Network Specific Identifier

New Asymmetric Crypto ECIES for SUCI

> Profile A: Curve25519

> Profile B: Secp256r1

> Null scheme (No Privacy)

Decryption

MNO

End to End Privacy management

MNO

Encryption
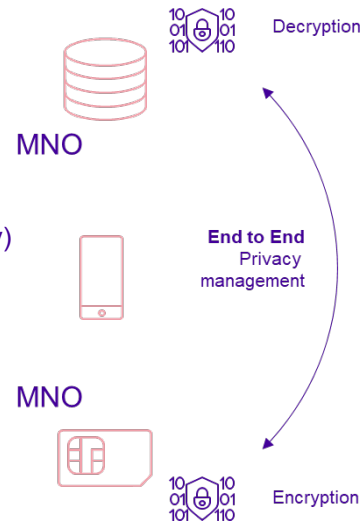
Cutting-edge technology

Chip	• IO209 • CC EAL5+ • HW crypto accelerator • 128 kB Flash Memory for customer profile • 6 kB RAM Memory
Authentication algorithm	• XOR
Authentication application	• USIM • ISIM • SIM
Crypto Algo for Privacy	Elliptic Curve Integrated Encryption Scheme(ECIES) • Profile A: Curve25519 • Profile B: Secp256r1 • Null scheme (No Privacy)
Over-The-Air (OTA)	• SMS • Activation /deactivation of 5G Services and SUCI configuration
Compliant Standards	• 3GPP Rel.15 • ETSI Rel.15R15 • Java Card 3.0.4 • Global Platform 2.3

And

much more

> Backward compatibility with 2G/3G/4G

> Future proof and forward compatibility with 5G networks

> Over-The-Air (OTA) 5G Service activation, 5G files configuration updates and SUCI Algorithm selection

> Dynamic behavior switch between SUCI (IMSI encryption) in SIM or in phone

> SUCI calculation in SIM HW on fly or background depending of operator settings

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