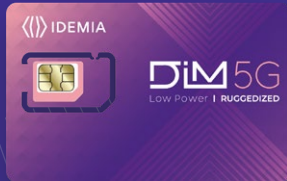# DIM 5G
Low Power | RUGGEDIZED

Flagship Series
Optimized IoT/M2M 5G SIM for IoT security and deployment

With the arrival of 5G networks, the growth of IoT is expected to reach over 25 billion by 2025. 5G networks offer better efficiency, improved device management, and ultra-low latency which can enable innovations and transform industries. IDEMIA offers a full range of 5G solutions to support IMSI encryption for 5G IoT deployment.

Thanks to 5G technology, a new wave of IoT verticals and deployment scenarios is on the rise—fueling new business opportunities in the IoT and M2M ecosystem for commercial, and industrial segments.

Our offer

IDEMIA DIM® 5G (Device Identity Module) is designed to support 5G IoT and M2M deployment. It's fully compatible with NB-IoT and LTE-M networks which support the following segments: commercial and industrial industries.

DIM® 5G is built to operate in harsh environments over long periods of time, making it ideal for deployment in remote locations. In addition, DIM® 5G is compliant with the latest ETSI, 3GPP, ISO standards. Our 5G IoT/M2M SIM range has the option to support the latest **IMSI encryption standardization** to secure IoT subscriptions.

For additional convenience, the IoT SIM's Product Lifecycle can be remotely managed by our Advanced OTA Solution.

Extend IoT/M2M Lifetime with Ruggedized OS

With a feature that provides frequent memory erase write cycles during long periods, the DIM® also offers ruggedized OS to enhance memory endurance thanks to our patent pending Memory Shield capabilities that send low memory alerts and "end-of-life" device warnings to avoid sudden device shut down.

Save Energy with Low Power Features

DIM® can negotiate the polling interval with the IoT/M2M device to reduce power consumption, which is especially useful for battery operated devices in a LPWAN environment.

Reduce testing effort with BIST on DIM®

DIM® 5G offers BIST (Built-In Self-Test), a quick and accurate self-testing feature. BIST enables OEMs to verify OS integrity during the assembly process, helps avoid unexpected recalls, and improves product quality.

Benefits

Worry-Free Services

Ruggedized OS for enhanced memory endurance, extended lifetime cycle and additional device health tracking, thanks to our innovative Memory Shield feature.

End-to-end IoT security

Enhanced IoT security with embedded TUAK, IMSI encryption (SUCI) to secure IOT subscriptions, and, IoT SAFE implementation, as specified by the GSMA to protect data assets.

Differentiate your product

Our 5G IoT SIM creates value for our customers. Adapting to the latest 3GPP/ETSI standards and coupled with Device Detection, SIM/Device Pairing, and Advanced OTA (Over-the-Air) HTTPS Solution, we are ready to support any type of IoT deployment.

Why IDEMIA?

Trusted by over 500 mobile operators worldwide, with over 900 million SIM cards shipped in 2020, IDEMIA is leading the way in the mobile and IoT/M2M ecosystem. With a global manufacturing footprint and cutting-edge security data centers in Europe and the United States, IDEMIA's continuous innovation is fueled by strong R&D investments and close partnerships in IoT/M2M – Connectivity – Biometrics – Security – Encryption – Quality of Service – Advanced SIM & services areas.

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How it works?

Ease product lifetime management with OTA platform

Enhance memory endurance with ruggedized OS for M2M

Save Energy and extend battery lifetime with Low Power features

Ensure vital OS function after device assembly– BIST (Built-In Self-Test)

Protect key data assets via IoT Safe Solution

Reduce M2M complexity and logistic costs–SIMfit, HalfSIM

5G IMSI encryption

DIM® 5G for different IoT & M2M segments

IoT SAFE
IoT SIM Applet For Secure End-to-End Communication

Commercial use cases

Targeted segments
Smart metering
Smart city
Fleet management

Industrial use cases

Targeted segments
Smart energy
Smart factories
Smart farming
Smart grid

Product Characteristics

OS Series	FLAGSHIP
Product name	**DIM 5G Low Power**
Chip info	› SC17 (Industrial) › SC8 (Commercial) › SC23 (Industrial)
IoT segment	› Industrial (-40°C / 105°C) › Commercial (-20°C / 85°C)
Memory	› 128KB Free Memory & above
Ruggedized Operating System (OS)	› Java Virtual Machine 3.0 or higher Ruggedized OS › High Memory Endurance
Qualification	› Telecom (ETST & 3GPP), Oracle Java & JEDEC*
Security	› DES, 3DES, AES, COMP128, Milenage, TUAK, SHA 256, 512 › Fast ECC (Only on SC23)
M2M features	› QoS (Quality of Services) › BIST (Build In Self Testing) › Low Power features › USAT Pairing
Applications	› IoT Safe › Memory Shield › Over-the-air (OTA) system management
M2M Low Power	› UICC Suspend & Resume › Poll Interval Negotiation
Compliant Standards	› 3GPP Rel.16 › ETSI Rel.16

In addition

› Robust IoT/M2M 5G SIM: survives extremes of temperature, humidity and corrosion conditions
› State of the art IoT/M2M features compliant to latest 3GPP specifications
› Extreme Long life span up to 15yrs
› Advanced OTA (Over-the-Air) supporting Remote File & Application Management.
› Low Power features compatible with IoT devices
› Support 2FF/ 3FF/ 4FF/ SIMfit/ SMD (MFF2) and other custom form factors

* Global Standards for the Microelectronic Industry

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