

# Workz SIM product portfolio

As a world top 10 SIM card manufacturer, we adopt a highly cost-efficient, integrated approach from development to production, data management and technical support. We provide a full SIM solution from all under one roof that removes unnecessary cost and allows you to get the most competitive prices at the quickest delivery times.



## The card

### Comprehensive range to meet all needs

- ✓ Removable and embedded form factors
- ✓ Universal 3-in-1 (4/3/2FF) card that works in any SIM device plus
- ✓ Range of cost-efficient card bodies: Half and quarter size
- ✓ Sustainable options: EcoSIM biodegradable SIM card
- ✓ Inhouse packaging & fulfilment to optimise cost
- ✓ All chip capacities & leading chip types



## The technology

### High security, reliability, & performance with

- ✓ Removable and embedded form factors
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## Physical specifications

- ✓ Form Factor: 3-in-1/MFF2/2FF/3FF/4FF/ DFN6
- ✓ Card Body: Full/Half/Quarter/Key ring hole
- ✓ EEPROM/Flash Size: 132KB – 560KB
- ✓ RAM: 5KB – 25KB
- ✓ Voltage Range: 1.62V – 5.5V



## SIM toolkit and $\mu$ -browser applications

- ✓ Includes both Java and Native
- ✓ Supports WIB, S@T, Celltick and Java Card Applets for hosting VAS
- ✓ Supports OTA over SMS and HTTPs channels



## UICC network authentication algorithms

- ✓ Comp 1-128, Comp2-128, Comp3-128
- ✓ Milenage 2G, 3G, 4G, 5G
- ✓ ISIM, I-WLAN
- ✓ EPS Network Authentication
- ✓ HPSIM, GBA
- ✓ TUAK
- ✓ CBRS Compliant



## OTA remote UICC SIM management

- ✓ Supports SMS & HTTPs channels
- ✓ Proactive commands
- ✓ OTA Algorithms: DES, CRC32, AES
- ✓ CAT\_TP, HTTPs
- ✓ DNS Resolver

## M2M Module footprint

- ✓ Standardized Jedec package MFF2 (DFN8/SON8/VQFN-8/DFN6)
- ✓ ETSI TS 221 102 ,671 102 and ISO 3-7816



Classic Consumer / Residential grade



Industrial grade



Automotive grade



-25°C to 85°C

-40°C to 105°C

-40°C to 105°C



25 years retention @25c  
>500K read/write

10 years retention  
>500K read/write

40°C to 105°C / 17 years retention  
>1M read/write



ETSI TS 671 102 string  
TS-MA-HA-CA-UB

ETSI TS 671 102 string  
TB-MA-HA-CA-VA-SA-RC-UC

ETSI TS 671 102 string  
TB-MA- HA-CA-VA-SA-RA-UC

## Compliance

### Fully compliant with leading standards

- ✓ Compliant with ISO, ETSI, 3GPP, Global Platform, Oracle Java Card, SIM Alliance and Common Criteria
- ✓ Universal Compatible with all network technologies: 2G / 3G / 4G LTE & 5G
- ✓ UICC LTE USIM, ISIM, CSIM and EAP-SIM supported



Security Accreditation Scheme

- ✓ GSMA SAS-certified SIM production and personalisation



- ✓ USIM Rel.6 / Rel.8
- ✓ LTE Rel.11 / Rel.12

### GLOBALPLATFORM

- ✓ 2.1.1, 2.2 (RAM over HTTPs)



- ✓ VM developed fully in-house with a focus on performance and footprint
- ✓ Java Card licensee
- ✓ Standard Java Card APIs, SIM APIs, UICC APIs, USIM APIs, Global Platform APIs, Connection API
- ✓ Algorithms: DES, AES, CRC32, SHA-1, SHA-224/SHA-256, MD5

### USIM PKI

- ✓ USIM PKI product with hardware RSA crypto engine supported

### NFC and SWP (NFC USIM)

- ✓ Contactless transactions secured by SIM card applet
- ✓ Supports SWP and card emulation of ISO 14443 type A and type B cards

For further information on Workz SIM solutions please contact your account manager.

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