

# BIOCHECK

Introducing the BioCheck fingerprint-enabled Trusted ID card that allows you to leave passwords behind and only you can unlock its many uses, such as traveller card, driving license, e-signature card, medical card and e-Wallet.

BioCheck is based on the MCS Multi-application Operating System (MOS) and a 32-bit STMicroelectronics ST31 secure microcontroller, security certified by Common Criteria.

Expect a reliable and consistent authentication process with its fingerprint module that has a resolution of 508 dpi, FRR of 2% at FAR of 0.01% and stores up to five fingerprints.

Use BioCheck at attended or unattended kiosks or terminals in contactless or contact communication modes up to 500 times on a full charge while powered by a high-density rechargeable battery.

Just switch it ON, place your finger on the sensor, wait for the green light and BioCheck is good to go.



FEATURES

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**ICAO MRTD**
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**DRIVING LICENSE**
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**E-SIGNATURE**
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**NFC FORUM**
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**RFID**
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## SPECIFICATIONS

<b>Multi-application Operating System</b>	ISO File Manager GlobalPlatform Card Manager Early Lifecycle Manager Fingerprint match-on-card ICAO Machine Readable Travel Document (ICAO Doc 9303, 7th Ed., 2015), plus LDS2 ISO-compliant Driving License (ISO/IEC 18013) Secure Signature Creation Device (SSCD)
<b>STMicroelectronics ST31G480 Secure Element</b>	ARM® SecurCore® SC000™ 32-bit RISC core 12 Kbytes of User RAM 480 Kbytes of secure User high-density Flash memory Contact assignment compatible with ISO/IEC 7816-3 standards, Class A/B/C ISO/IEC 14443 Type A, B and B', PayPass™ and ISO/IEC 18092 passive mode standards Automatic CPU frequency adaptation for optimum power consumption CC EAL6+ and EMVCo certification
<b>Fingerprint Controller</b>	Sensing area : 160 x 160 pixels (8 x 8 mm) Sensing pixel size : 50 x 50 µm Special resolution : 508 dpi ADC pixel resolution : 8 bits, grayscale Sensor colour : Matte black Pencil hardness : 6H at 500 g RCA abrasion wear : 200 cycles at 175 g FRR : 2% at FAR : 0.01% ESD : 8 kV on contact pins Operating temperature range : -10°C to 50°C Extended humidity range : 20% to 85% RH non-condensing
<b>STMicroelectronics STM32F401 MCU</b>	Core: ARM® 32-bit Cortex® -M4 CPU with FPU, Adaptive real-time accelerator (ART Accelerator™) allowing 0-wait state execution from Flash memory, frequency up to 84 MHz, memory protection unit, 105 DMIPS/1.25 DMIPS/MHz (Dhrystone 2.1), and DSP instructions Memories: 384 Kbytes of Flash memory, 96 Kbytes of SRAM
<b>Communication</b>	Contact : ISO/IEC 7816-3, T=0 and T=1, up to 600 kbps Contactless : ISO/IEC 14443 Type A / B, up to 848 kbps, VHBR up to 6.8 Mbps; ISO/IEC 18092 NFC passive card mode Parameter and protocol selection (PPS) Extended length APDU, up to 4,096 bytes
<b>Battery</b>	Battery type : Built-in rechargeable battery Card Use : Up to 500 uses per full charge Charging Time : Up to 90% charge 4 hours Nominal Capacity : 16 mAh Operating Window (Standard Charge/Discharge) : Charge: -20 to 60°C; Discharge: -20 to 60°C Storage Duration : 3 months: -20 to 45°C; 1 year: -20 to 25°C Cycle Life : 500 <sup>th</sup> -cycle capacity ≥ 70% of the minimum capacity at 25°C
<b>Compliance</b>	ICAO TR Radio Frequency Protocol and Application Test Standard for eMRTD BSI TR-03105 Conformity Tests for Official Electronic ID Documents Common Criteria EAL 4+ MRTD protection profile GlobalPlatform Compliance Test Program (upon customer request) EMVCo Card Level 1 Protocol (upon customer request)
<b>Card</b>	Dimensions: 85.6 cm x 54 cm x 0.76 mm (ID-1) PET plastic card body