BIOPAY

Introducing the BioPay fingerprint-enabled Payment card that allows you to leave PINs behind and only you can unlock its many uses as credit or debit card.

BioPay embeds the STMicroelectronics STPay chip operating system and 32-bit ST31 secure microcontroller, security certified by EMVCo. It features Visa®, MasterCard® and JCB® certified payment applications.

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 BioPay 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 BioPay is good to go.

The BioPay development tool is an easy to use toolkit that allows issuers and service providers to:

- ❖ Install and test Java applets
- ❖ Personalize, test and validate BioPay-Java sample cards.

The tool comes with sample personalization scripts for VSDC, M/Chip® Advance and JCB® to facilitate script development/validation and rapid card deployment.

FEATURES

SPECIFICATIONS

Operating System	STPay payment secure solution Java Card™ 3.0.4 Classic operating system Global Platform™ 2.1.1 MG 1.0.1 API support Common Personalization Specification (CPS) compliant

Applications	MasterCard M/Chip® Advance 1.2.1
	    • Dual interface supporting PayPass® contactless payments
	    • Data sharing single account configuration 2
	    • PIN sharing
	Visa® VSDC 2.9
	    • Dual interface supporting payWave® contactless payments
	JCB® D.1.1 dual interface

Personalization	EMV CPS v1.1 compliant VSDC Personalization Specification v 2.0 M/Chip® Advance v1.2.1 Common Personalization Specification
STMicroelectronics ST31G480 Secure Element	ARM® SecurCore® SC000™ 32-bit RISC core Up to 135 Kbyte user NVM, 12 Kbytes of User RAM 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
Fingerprint Sensor	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
STMicroelectronics STM32L452 MCU	Core: ARM® 32-bit Cortex® -M4 CPU with FPU, Adaptive real-time accelerator (ART Accelerator™), frequency up to 80 MHz, memory protection unit, 100 DMIPS or 1.25 DMIPS/MHz (Dhrystone 2.1), and DSP instructions Memories: 512 Kbytes of Flash memory, 160 Kbytes of SRAM
Communication	Contact : ISO/IEC 7816-3, T=0 or T=1 protocol Contactless : ISO/IEC 14443 Type A or Type B protocol
Battery	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℃; Discharge: -20 to 60℃ Storage Duration : 3 months: -20 to 45℃; 1 year: -20 to 25℃ Cycle Life : 500th-cycle capacity ⩾ 70% of the minimum capacity at 25℃
Card	Dimensions: 85.6 cm x 54 cm x 0.76 mm (ID-1) PET plastic card body