

MULTOS step/one

4K, 8K, 16K and 32K

The Easy Way to EMV

The EASY Choice

Multos International's acclaimed product offering, MULTOS step/one, responds to demand for an entry-level EMV smartcard that has a seamless upgrade to multi-application, high security EMV transactions. Now issuers can access a smartcard platform family that provides the highest return on investment for EMV smartcards — MULTOS step/one for SDA (Static Data Authentication) with easy upgrade to MULTOS for DDA (Dynamic Data Authentication), CDA (Combined Dynamic Data Authentication) and dual-interface.

A STRATEGIC Approach

With so many card options for EMV migration on the market, making the right decision can be tough. MULTOS step/one becomes the strategic answer to EMV. If you want to implement SDA today, but want to keep your options open for the future, then the right choice is MULTOS step/one.

MULTOS step/one is an open platform approach to entry-level EMV cards — with an issuer-centric supply chain model for maximum sourcing flexibility — and at the same time allows you to rest easy in the knowledge that the future is mapped out.

Over the years, MULTOS step/one has become the leading open platform solution for SDA migrations, supporting global and regional payment scheme specifications and being used by Issuers around the world.

Low Cost, Greater FLEXIBILITY

MULTOS step/one offers the flexibility of choice with a range of products available with applications pre-loaded; or define your own product configuration. In addition, you can be assured of supply because MULTOS step/one is offered in a range of memory sizes and through a number of card manufacturers.

From a Proven FAMILY

Multos International is a leading supplier of smartcard solutions, with a range of MULTOS products available for EMV and multiple dynamically loaded applications. MULTOS step/one has been developed to capture many of the MULTOS features, including application firewalls, but at the lowest possible cost.

- » Compatible with MULTOS — choose from a range of off-the-shelf applications.
- » Application development using the standard MULTOS development environment (MEL, C, or Java).
- » Fast and simple personalisation.
- » Choose from a number of vendors across the entire supply chain — including card manufacturer, data preparation and personalization.
- » Choose standard EMV applications, or custom applications.

Applications available for EMV, authentication, data storage and many more:

- MICA (M/Chip4)
- M/Chip Advance
- VSDC
- CAP, DPA
- D-PAS
- Loyalty
- J/Smart
- Whitelabel EMV

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Features

Family Compatibility with MULTOS

MULTOS step/one is the leading open platform for SDA EMV migration. MULTOS step/one provides compatibility with MULTOS applications (without RSA cryptographic functions) and MULTOS personalisation commands. MULTOS is considered the platform of choice for secure DDA EMV smartcard operating systems.

Applications Pre-loaded

Multos International has combined MULTOS step/one with the most popular EMV applications on the market. Depending on available memory space, additional applications may also be included in the pre-loaded mask. This saves EEPROM memory and reduces personalisation times, to allow the lowest possible cost to market.

Applications

New applications can be developed using the same MULTOS tools currently available for no charge — use 'C', Java, or MEL to develop MULTOS step/one applications. Alternatively, dozens of off-the-shelf applications are available from a number of application providers. Choose from EMV, loyalty, health, biometrics and many others.

Customer Choice for Mask

The card issuer can choose a dedicated mask containing the particular mix to best meet market requirements.

Fast Personalisation

Multos International's family of MULTOS step/one products ensures the lowest total cost due to extremely fast data preparation and personalisation. A typical EMV application can be loaded in around 3 seconds, thanks to a low OS overhead and efficient MULTOS application packages.

Technical Specifications

CPU	
SC1 Range	SC4 Range
Infineon SLE66C Series	Infineon SLE77 Series
2.7-5.5V operation	
CC EAL5+	
Clock speed: up to 7.5 MHz (ext.); 33MHz (int.)	
Anti-snooping mechanisms in hardware: active shields, true random number generator, counter measures against SEMA/DEMA SPA/DPA DFA and timing attacks	
Memory	
EEPROM options: 4K, 8K, 16K, 32K	
Input/Output - Contact	
Protocols: T=0, T=1; PPS	
Speed: up to 223 kbit/s	
Applications Preloaded	
MasterCard: MICA (M/Chip4): M/Chip2.06, M/Chip Advance	
Visa: VSDC	
Diners: D-PAS	
Whitelabel EMV	
Other Application Availables	
XLS (Welcome Real Time)	
PBOC, J/smart, XLS	
Development Tools	
Free SDK supporting:	
MEL (low-level language)	
C	
Java	
The MULTOS step/one specification is an entry-level multi-application operating system, based on MULTOS, but targeted at financial card Issuers who do not presently wish to incorporate DDA capabilities into their EMV portfolios. This successful operating system exploits the security, flexibility and software interoperability inherent in all MULTOS products. Multos International's implementation of MULTOS step/one is the first of its kind. Multos International has a number of products certified by MasterCard, Visa and Diners International.	
<i>*Applications are available in various products. Contact Multos International for more information.</i>	

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