



Product Brief

CIPURSE™move – SLM 10TLC002L

CIPURSE™L Profile compliant security product

The CIPURSE™move is a ready-to-use cost optimized contactless security product and offers secure storage of AES-128 keys in hardware for 3-pass mutual authentication and communication. It targets single application and provides 304 Byte of user memory for application data storage.

CIPURSE™ is an Open Standard of the OSPT™ Alliance and provides interoperability and easy integration of CIPURSE™ certified products.

The CIPURSE™move incorporates the CIPURSE™ security architecture using AES-128. Commands and data can be secured using the CIPURSE™ Cryptographic Protocol which is inherently resistant against physical attacks like Differential Power Analyses (DPA) and Differential Fault Analysis (DFA) and was honored in 2012 with the German IT Security Award. A typical CIPURSE™ secured transaction will take less than 100 ms.

The CIPURSE™move is the ideal product to support migration from existing nonsecure or systems using Mifare compatible technology towards a more advanced, state-of-the-art and future proven security architecture such as the Open Standard CIPURSE™.

Applications

- > Public Transport Ticketing
- > Automatic Fare Collection (AFC) system
- > Limited Use Ticket (LUT), Limited Use Card (LUC)
- > Account based Ticket, Single Ride Ticket, Event Ticket
- > Access management, hospitality
- > Loyalty and identification
- > Closed-loop payment
- > NFC

Benefits

- > Ready-to-use for personalization
- > Future proven cost effective solution for single application
- > CIPURSE™ certified

Main features

- > CIPURSE™L Profile compliant
- > 304 Byte (2.4 kbit) user memory
- > One application configurable
- > One PxSE application configurable
- > Limited Refund feature
- > NFC Forum Type 4 Tag support
- > ISO/IEC 14443 Type A contactless interface
- > 17 pF chip input capacitance
- > Data rates up to 848 kbit/s
- > Available as sawn, bumped wafer or contactless module MCC8

Security features

- > Secure storage of AES-128 keys
- > Secured 3 pass mutual authentication using AES-128
- > Secured communication using AES-128 and session key derivation mechanism
- > Data exchange protocol inherently DPA and DFA resistant offering AES-MAC and sequence integrity protection for APDUs

CIPURSE™move

SLM 10TLC002L

Contactless I/O management

- > ISO/IEC 14443-3 Type A Initialization and anticollision
- > ISO/IEC 14443-4 transmission protocol
- > 4/7-byte fixed UID, 4-byte random UID configurable

Memory organization

- > ISO/IEC 7816-4 file system
- > Binary, linear record and value-record files
- > One CIPURSE™ and one PxSE application configurable
- > Up to 3 elementary files within the CIPURSE™ application configurable

NFC Forum Type 4 Tag

- > Technical specification version 2.0

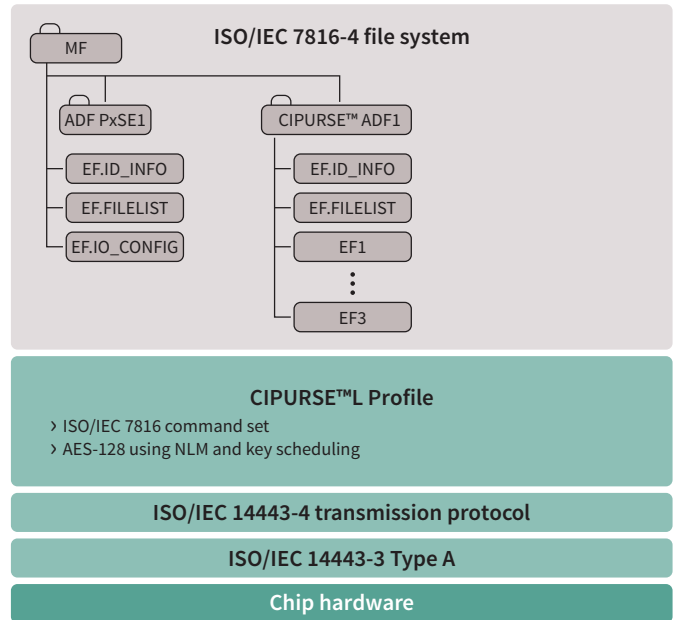
Security

- > Security attack preventions for all critical operations using both hardware and software countermeasures
- > Mutual authentication (3-pass as per ISO/IEC 9798-2), using AES-128
- > Data exchange protocol inherently DPA and DFA resistant offering AES-MAC and sequence integrity protection for APDUs
- > Flexible access rights and secure messaging rules configurable for each file
- > Two 128-bit AES keys per CIPURSE™ application configurable

Tools

- > CIPURSE™ evaluation & development kit
 - CIPURSE™Explorer
 - Scripts for card personalization & operation
 - Scripts for CIPURSE™SAM personalization & key distribution
 - Scripts for NFC Type 4 Tag configuration
 - Terminal application note
 - CIPURSE™ sample cards

Memory & block diagram



Ordering information

Sales name	Description
SLM 10TLC002L	NB (sawn wafer 75 µm, NiAu bump 20 µm)
SLM 10TLC002L	MCC8 (contactless module)

CIPURSE™ product portfolio

CIPURSE™move	SLM 10TLC002L
CIPURSE™4move	SLS 32TLC004S(M)
CIPURSE™Security Controller	SLS 32TLC100(M)
CIPURSE™SAM	SLF 9630

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