

# my-d™ move

Intelligent 1 kbit EEPROM

Compliant to: ISO/IEC 14443 Type A, ISO/IEC 18092  
and NFC Forum™ Type 2 Tag Operation

First information for early adopters

2009-02 (v1.0)



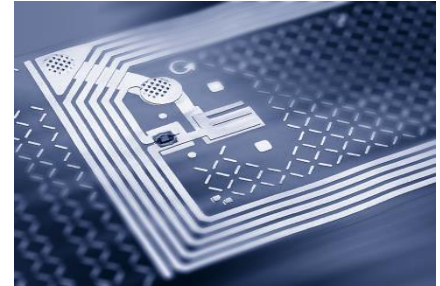
- 1 Optimized for the fastest growing market of Limited Use Tickets
- 2 Dedicated functionality for cost efficiency
- 3 Based on the world wide established ISO 14443 type A infrastructure
- 4 Supports the upcoming NFC market
- 5 Best cost position paired with small footprint for mass production with existing machines

# my-d™ move

## Features



- › Physical Interface and anti-collision complying to ISO/IEC 14443-3 type A
  - Physical Interface and Anticollision compliant to ISO/IEC 14443, parts 1-3, type A
  - Data Rate: 106 kBit/s
- › Double Size UID (7 bytes) according to ISO 14443-3, Type A to address huge tag populations
- › 128 bytes of User EEPROM memory organized in 32 blocks with 4 bytes each
  - Data Retention > 5 years
  - Endurance > 10000 erase/write cycles
  - Programming time per block < 4 ms
  - Error Correction Code (ECC) for highest data reliability
  - Read and write of 128 bytes of User Memory in 100ms



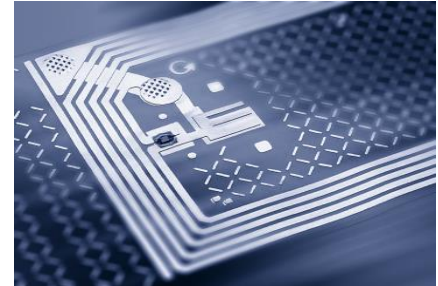
# my-d™ move

## Privacy features



### › Privacy features:

- 32 bit One Time field Programmable (OTP) values
- Locking mechanism for each block and Block Lock mechanism
- Optional 32 bit Read/Write or Write only Password for memory access
- Optional and configurable password retry limitation
- Optional 16 bit Value Counter
- Anti-tearing mechanism for OTP blocks, Password Counter and Value Counter blocks



### › Mechanical features:

- Chip Size: < 43 mm<sup>2</sup>
- On-Chip Resonance Capacitance of 17pF ± 5%
- Ambient Temperature: -25°C... +70°C
- ESD protection > 2 kV HBM on chip level

### **Applications**

- › Single Use Tickets
- › Limited Use Tickets
- › Event Ticketing
- › Park Tickets

# my-d™ move Memory Organization

Please check:  
Changed a fill color to match style.

- > Linear EEPROM memory
- > Organized in 37 blocks, 32 bits each
- > 32 Blocks of freely user programmable memory (128 bytes)
- > Memory principle for NFC Forum™ Type 2 Tag
- > Dynamic Memory structure with Lock Control TLV and Memory Control TLV

Byte Number	0	1	2	3	Block
UID/Internal	UID0	UID1	UID2	Internal0	0
Serial Number	UID3	UID4	UID5	UID6	1
Internal / Lock	Internal1	Internal2	Lock0	Lock1	2
CC	CC0 = E1h	CC1 = 10h	CC2 = 10h	CC3	3
LockCtrl TLV	LockCtrlTLV0 = 01h	LockCtrlTLV1 = 03h	LockCtrlTLV2 = 90h	LockCtrlTLV3 = 14h	4
LockCtrl TLV / MemCtrl TLV	LockCtrlTLV0 = 24h	MemCtrlTLV0 = 02h	MemCtrlTLV1 = 03h	MemCtrlTLV1 = 93h	5
MemCtrl TLV / NDEF Mess.	MemCtrlTLV0 = 05h	MemCtrlTLV0 = 04h	NDEFMessTLV0 = 03h	NDEFMessTLV1 = 00h	6
Terminator TLV / Data	TerminatorTLV = FEh	Data13	Data14	Data15	7
Data	...	...	...	...	8
Data	...	...	...	...	...
Data	...	...	...	...	15
Data	...	...	...	...	16
...	...	...	...	...	...
Data	Data120	Data121	Data122	Data123	34
Data	Data124	Data125	Data126	Data127	35
Lock/Reserved	Lock2 = 00h	Lock3 = 00h	Lock4 = 00h	Reserved 0	36
Lock/Reserved	Reserved 1	Reserved 2	Reserved 3	Reserved 4	37

**programmed by issuer**



Part of your life. Part of tomorrow.

