

MIFARE DESFire EV1 8K card



The MIFARE DESFire EV1 8K card operates at 13.56 MHz wireless frequency, according to the ISO 14443A standard with the transport protocol complying to the ISO 14443-4 standard. It features a 8K byte non volatile memory, high speed triple-DES and 128-bit AES data encryption co-processor, a flexible memory organization structure, a mutual 3-pass authentication technique together with a true random number generator and an anti-tear mechanism to guarantee data integrity during contactless transactions. These MIFARE DESFire EV1 cards typically operate at a distance of up to 10cm depending on the power provided by the reader.

This card is NFC forum type 4 compliant.

Supplied as blank white PVC cards to ISO standard.

Highly secure contactless card with standard encryption algorithms, suitable for multiple application types. 8K byte of memory. Operates at 13.56 MHz.

To buy, visit:

<https://www.smartcardfocus.com/shop/ilp/id~401/mifare-desfire-ev1-8k-card/p/index.shtml>

This Product Briefing has been produced by Dot Origin Ltd, the smart card experts behind SmartcardFocus.com. If you have a query email sales@smartcardfocus.com or call us on +44 (0)1428 685250.

MIFARE DESFire cards & tags

Technical Specifications

Memory

EEPROM size [byte]: 4096bytes (MIFARE DESFire 4k); 8192bytes (MIFARE DESFire 8k)

Write-endurance [cycles]: 500 000

Data retention [years]: 10

Organisation: flexible file system

RF-Interface

Acc. to ISO 14443A: yes - up to layer 4

Frequency [MHz]: 13.56

Baudrate [kbit/s]: 106 ...848

Anticollision: bit-wise

Operating distance [mm]: Up to 100

Security

Unique Serial Number [byte]: 7, cascaded

Random Number Generator: Yes

Access keys: 14 keys per application

Access conditions: per file

DES & DES3 security: MACing / Encipherment

AES security: MACing / Encipherment

Anti-tear supported by chip: yes

Special Features

Multi-application : 28 applications, MAD3

Purse functionality: Value file

Secure Transport Transaction: 512 byte read, 128 byte write

Transaction Time [ms]: 89

Typical applications include:

- Transport
- Access control
- Loyalty
- Internet applications

A picture of the MIFARE DESFire EV1 4k thin keyfob is shown below.



Manufacturer: NXP