MIFARE DESFIRE EV1

PC.DesfireEv1.2k / 4k

- MIFARE DESFire EV1, a Common Criteria (EAL4+) certifed product, is ideal for service providers wanting to use secure multi-application smart cards in public transport schemes, access management or closed-loop e-payment applications. It is fully complies with the requirements for fast and highly secure data transmission, flexible memory organization and interoperability with existing infrastructure.

- MIFARE DESFire EV1 is based on open global standards for both air interface and cryptographic methods. It is compliant to all 4 levels of ISO/IEC 14443A and uses optional ISO/IEC 7816-4 commands.

- Featuring an on-chip backup management system and the mutual three-pass authentication, a MIFARE DESFire EV1 card can hold up to 28 different applications and 32 files per application. The size of each file is defined at the moment of its creation, making MIFARE DESFire EV1 a truly flexible and convenient product.

- Additionally, an automatic anti-tear mechanism is available for all file types, which guarantees transaction-oriented data integrity. With MIFARE DESFire EV1, data transfer rates up to 848 kbit/s can be achieved, allowing fast data transmission.

Key Features

- Contactless transmission of data and powered by the RF-field (no battery needed)

- Operating distance: up to 100 mm (depending on power provided by the PCD and antenna geometry)

- Operating frequency: 13.56 MHz

- Fast data transfer: 106 kbit/s, 212 kbit/s, 424 kbit/s, 848 kbit/s

- High data integrity: 16/32 bit CRC, parity, bit coding, bit counting

- True deterministic anticollision

- 7 bytes unique identifier (cascade level 2 according to ISO/IEC 14443-3 and option for random ID)

- Uses ISO/IEC 14443-4 protocol
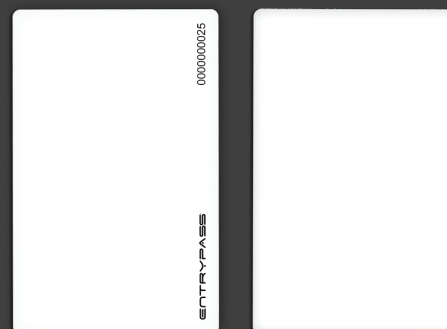
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Technical Specification

Base Part Number	PC.DesfireEv1.2k	PC.DesfireEv1.4k
Operating Frequency	13.56 MHz	
RF Interface	ISO 14443 A, Parts 1-4 (DESFire EV1)	
Typical Maximum Read Range	DESFire: Up to 4" (10 cm)	
Transaction Time	< 100 ms	
Baud Rate	Activation at 106 kbps; Data transfer up to 848 kbps	
Memory Type	EEPROM 2 Kbytes	EEPROM 4 Kbytes
Memory Structure	Up to 28 applications, with up to 32 files per application	
Operating Temperature	-40 to 122°F (-40 to 50°C)	
Operating Humidity	5% - 95% Non-Condensing	
Write Endurance	100,000 cycles min	
Data Retention	10 years min	
Materials and Finish	Gloss white/white PVC or PVC/Polyester Composite	
Weight	0.20 oz (6.0 g)	
Programming	Factory or Field	
Card Marking	Inkjet standard, Laser Engraving optional	
Custom Graphics	Optional	
Magnetic Stripe	Optional	
Printable	Yes (white/white card)	

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Dimension

0.8mm

53.98mm

85.60mm

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Ordering Information

PC.DesfireEv1.2k   Entrypass Mifare Desfire EV1 (2k bytes)
PC.DesfireEv1.4k   Entrypass Mifare Desfire EV1 (4k bytes)

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