



Card



Mifare™ DESFire card is a highly secure, flexible structure contactless smart card, fully compatible with ISO 14443-1-2-3-4, type A standard. It benefits from ASK's advanced manufacturing process and a large installed base of readers.

Mifare™ DESFire is interoperable with existing infrastructures for mass transit teleticketing.

Mifare™ DESFire / DESFire EV1

Highly secure multi-application contactless smart card

Applications

- Mass transit
- Access control
- Event ticketing

Standards

- ISO 14443 type A 1 to 4 compliant
- CC EAL+4

Feature

- 2 K, 4 K, 8 K EEPROM memory size
- DES, 3 DES and AES cryptographic algorithms
- Graphical and electrical personalization
- Compatibility of DESFire EV1 with existing DESFire systems

Option

- PET Body
- 4 colors printing
- Magnetic stripe
- Signature panel
- Thermo rewrite coating
- Hologram
- Embossable antenna
- Contactless paper tickets





Card physical characteristics

- ISO 7810 ID1
- 85.5 x 54 mm
- Thickness < 0.9 mm
- Resistance to chemicals: compliant with ISO 10373 standard

Material

- PVC with printed antenna
- PET optional for extended temperature range
- 4000 bending and torsion cycles tests in production
- 50.000 bending cycles tests in qualification
- Global lifetime: 5 years in normal usage

Electrical

- ISO 14443 type A modulation
- Communication speed: 106 kbit/s, 212 kbit/s, 424 kbits/s, 848 kbit/s
- Number of reads: unlimited
- Number of writes: 500.000
- Data retention: 10 years
- Temperature: -25°C to +50°C

Security features

- Unique 7-byte serial number
- CRC and bit counting on physical layer
- DES, 3 DES and AES cryptographic algorithms
- CC EAL4+ certification

Contactless paper tickets

- ISO 15457 (TFC.1)
- 85.5 x 54 mm
- Thickness: 330 +/- 40µm
- Die cut tickets
- Fanfolder
- Roll stack
- Environment friendly

Memory organization

- Flexible structure
- Up to 28 different applications and 32 files per application
- 10 years data retention

Graphical personalization

- Artwork printing: offset litho (4 colors) or screen printing
- Post printing: compatible with thermal transfer printing
- Finishing: transparent matt overlay recommended for intensive usage

