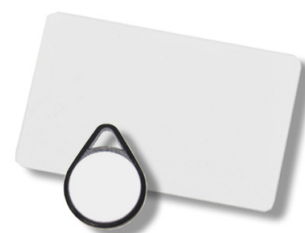


MIFARE® DESFire Tags

MIFARE DESFire EV1 keyfob 8K
 MIFARE DESFire EV1 card 4K
 MIFARE DESFire EV2 keyfob 4K
 MIFARE DESFire EV2 card 4K
 MIFARE DESFire EV3 keyfob 4K
 MIFARE DESFire EV3 card 4K



MIFARE® DESFire Tags are card or keyfob sized transponders with multi-application capabilities and high security features enabled by MIFARE® technology.

Specification

	Mifare DESFire keyfob 8K	DESFire EV1 & EV2 & EV3 card / keyfob 4K
Memory		
EEPROM Size (byte)	7936	EV1: 4864, EV2 & EV3: 5120
Write Endurance typical [cycles]	500 000	EV1 & EV2: 500000, EV3: 1000000
Data Retention [yrs]	10	EV1: 10, EV2 & EV3: 25
Organization	flexible file system	flexible file system
RF Interface		
Acc. to ISO 14443 A	yes - up to layer 4	yes - up to layer 4
Frequency [MHz]	13,56	13,56
Baudrate [kbit/s]	106 ... 848	106 ... 848
Anticollision	bit-wise	bit-wise
Operating Distance [mm]	up to 100	up to 100
Security		
Unique Serial Number [byte]	7, cascaded	7, cascaded
Random Number Generator	yes	yes
Access Keys	14 keys per application	14 keys per application
Access Conditions	per file	per file
DES & 3DES Security	MACing / Encipherment	MACing / Encipherment
AES Security	MACing / Encipherment	MACing / Encipherment
Anti-tear supported by chip	yes	yes
Special Features		
Multi-application	28 applications	28 applications for EV1, Unlimited for EV2 & EV3
Secure Transport Transaction example	512 byte read, 128 byte write	512 byte read, 128 byte write
Related Transaction Time [ms]	89	89
Field strength	According to EN300330	