MIFARE DESFire EV1/EV2
ASSA-HCNT-D1XX

Reference image only*

KEY FEATURES

The MIFARE DESFire EV1/EV2 is one of the most dominant, reliable & proven open technology platform for contactless smart credentials. The Smart cards are designed for diverse applications that demand the highest levels of security, including access control, biometric 2-factor authentication(template on card), cashless vending, public transportation, ticketing and customer loyalty cards. Available in PVC and Composite PET/PVC card construction, the IDCUBE MIFARE DESFire EV1/EV2 card is exceptionally durable.

It fully complies with the requirements for fast and secure data transmission, flexible memory organization, and interoperability with existing infrastructure. MIFARE DESFire EV1/EV2 is based on open global standards for both air interfaces and cryptographic methods. The chip's main characteristics are denoted by its name itself DESFire, here the DES (acronym for Data Encryption Standard, the symmetric-key algorithm) indicates the commitment for highest level of security.

The smart card uses DES, 2K3DES, 3K3DES and AES hardware cryptographic engine for securing transmission data. MIFARE DESFire EV1/EV2 delivers the perfect balance of speed, performance, and cost efficiency. Its open concept allows future seamless integration of other media such as smart paper tickets, key fobs, and mobile ticketing based on Near Field Communication (NFC) technology. It is also fully compatible with the existing MIFARE reader hardware platform.

KEY FEATURES
Fully ISO/IEC 14443 A 1-4 compliant
2/4/8-KByte EEPROM with fast programming
Secure, high-speed command set
High data rates according to ISO/IEC 14443-4: up to 848 Kbit/s
Flexible file structure
Choice of open DES/2K3DES/3K3DES/AES
Crypto algorithm in hardware
Anti-collision
Privacy protection
Unique 7-byte serial number (ISO cascade level 2)
Data integrity: CRC and bit counting on physical layer
Common Criteria certification: EAL4+ for IC HW and SW

TECHNICAL SPECIFICATIONS

Product Features	MIFARE DESFire EV1/EV2 2K	MIFARE DESFire EV1/EV2 4K	MIFARE DESFire EV1/EV2 8K
Base Part Number	ASSA-HCNT-D12X	ASSA-HCNT-D14X	ASSA-HCNT-D18X
EEPROM Size [byte]	2048	4096	8192
Write Endurance [cycles]	500,000		
Data Retention [yrs.]	10		
Organization	flexible file system		
Acc. to ISO 14443 A	yes - up to layer 4		
Frequency [MHz]	13.56		
Baud rate [kbit/s]	106 ~ 848		
Anticollision	bit-wise		
Unique Serial Number [byte]	7, cascaded		
Random Number Generator	yes		
Access Keys	14 keys per application		
Access Conditions	per file		
DES, 3DES & AES Security	MACing / Encipherment		
Multi-application	28 applications, MAD3		
Purse Functionality	value file		
Transaction Logging Capability	record file		
Card Construction	Gloss white/white PVC or PVC/Polyester Composite		
Dimensions	2.125" x 3.375" x 0.070" max. (5.40 x 8.57 x 0.18 cm)		
Weight	0.20 oz (6.0 g)		
Operating Temperature	PVC Cards: -40 to 122°F (-40 to 50°C) Composite Cards: -40 to 158°F (-40 to 70°C)		
Operating Humidity	5% - 95% Non-Condensing		
Typical Maximum Read Range	DESFire: Up to 4" (*Dependent upon installation conditions and reader specifications)		
Custom Graphics	Optional		
Programming	Factory or field programmable; Access360 credential programming kit available on request		
Warranty	Lifetime warranty. See complete warranty policy for details		

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