



MIFARE CLASSIC EV1

ASSA-HCNT-MFXX



Reference image only*

The MIFARE Classic technology offers fast and convenient transactions and is used worldwide for access control, cashless vending, transit and other applications. The MIFARE Classic EV1 smart cards are available with embedded NXP chips and represents the latest development of all the MIFARE Classic product family and succeeds all the previous versions. They are the most widely used contactless smart cards available in both 1K and 4K memory version, serving different application needs.

IDCUBE recommends that where security is on the top of the priority list, existing MIFARE Classic systems are upgraded to the latest NXP products of MIFARE, DESFIRE or MIFARE Plus families best-in-class security features & common criteria certification.

Building on NXP's proven MIFARE DESFIRE & MIFARE Plus smart cards not only allows you to benefit from enhanced security features but also provides support for multiple application environments and mobile use cases.

KEY FEATURES

- Fully ISO/IEC 14443 Type A 1-3 compliant
- 7B UID or 4B NUID
- 1K or 4K EEPROM
- Sector and block-based user memory (16 byte per block)
- Memory access conditions freely programmable
- 2 x 48-bit keys per sector for key hierarchy
- Personalization options (7B UID version only), supporting flexibility within 4B and 7B infrastructure, e.g., ISO shortcut, UID mapping from 7B UID to 4B NUID
- Easy-to-use and proven toolkits available
- Read range of 10 cm increases convenience of touch-and-go experience

TECHNICAL SPECIFICATIONS

Product Features	MIFARE Classic EV1	
EEPROM Size [byte]	1K	4K
Write Endurance [typical cycles]	200 000	
Data Retention [years]	10	
Organization	16 sectors with 4 blocks	32 sectors with 4 blocks, 8 sectors with 16 blocks
According to ISO 14443A	Yes-up to layer 3	
Frequency [MHz]	13.56	
Bit-rate [kbit/s]	106	
Anticollision	Bit-wise	
Unique Serial Number [byte]	4-byte NUID or 7-byte UID	
4-byte Random ID	Yes (7B UID versions only)	
Random Number Generator	Yes	
Access Keys	2 Crypto1 keys per sector	
Access Conditions	Per sector	
Base Part Number	ASSA-HCNT-MF1X	ASSA-HCNT-MF4X
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	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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