



Advanced Card Systems Ltd.
Card & Reader Technologies

MIFARE[®] Keyfob



Technical Specifications V1.01



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1.0. Introduction

MIFARE® Classic family is the pioneer and forerunner in contactless smart card ICs operating in 13.56 MHz frequency range with read/write capability. Being available in several forms, it is truly perfect for any contactless-based application.

With its unique form factor and high data transmission rate, the MIFARE Keyfob allows quick and convenient transactions anytime, anywhere. MIFARE Keyfob is made of ABS material making it durable to withstand harsh environments. This makes it ideal for any application requiring quick access, such as in health spas, student identification, and public transportation.

With merely just a wave, you can experience limitless possibilities in any contactless application imaginable.





2.0. Features

- Built-in MIFARE Classic 1K chip
 - 1 KB EEPROM
 - Organized in 16 sectors with 4 blocks of 16 bytes each (one block consists of 16 bytes)
 - User definable access conditions to each memory block
 - Data retention: 10 years
 - Write endurance: 100,000 cycles
 - Features anti-collision
 - Mutual three-pass authentication
 - Individual set of two keys per sector (per application) to support multi-application with key hierarchy
 - Unique serial number for each device (4 bytes)
- Conforms to ISO 14443 Type A standard



3.0. Typical Applications

- e-Government
- e-Healthcare
- Access Control
- Network Security
- e-Purse & Loyalty
- Transportation



4.0. Technical Specifications

Embedded MIFARE Module

IC Type.....	MF1ICS50
Interface.....	ISO14443 Type A
Protocol & Crypto.....	MIFARE Classic
Memory.....	1 KB EEPROM
Operating Frequency.....	13.56 MHz
Operating Distance.....	Up to 35 mm
Data Transfer.....	106 kilobits

Physical Specifications

Dimensions.....	28 mm x 35 mm 7 mm (Blue variant)
.....	32 mm x 40 mm x 4 mm (Purple variant)
Color Options.....	Blue (also available in Purple)
Weight.....	5 g
Material.....	ABS

Operating Conditions

Temperature.....	-10°C – 50°C
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