

# MF1-R-TTL-M3

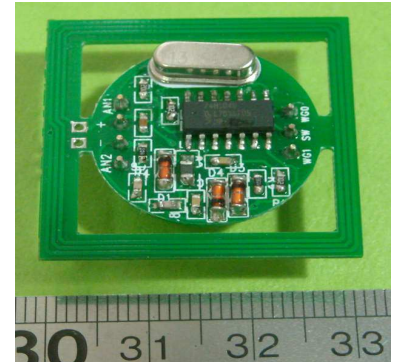
## 13.56Mhz Mifare ISO14443A Slim size RFID Reader Module

### General Description

This is a low cost high performance, super mini size RFID reader module for Mifare ISO14443A. All complex antenna driver, RF receiver and decoding are handled by the module.

### Features

- Read 4 byte UID of the Mifare ISO14443A tag
- High sensitivity, reliable performance
- Embedded antenna design
- Ultra Compact, small outline
- Support UART-TTL interface

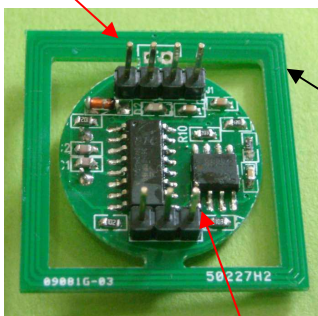


### Specifications

- **Power** : 5 Volts +/-0.15Volt DC, 80mA typical
- **Interface** : UART (TTL level)
- **Reading Range** : 2-3cm for ISO Card
- **Working Frequency** : 13.56Mhz
- **Support Tag** : Mifare ISO14443A (e.g. S50 ,S70 & ultra light)
- **Operating temperature** : -0°C to + 85°C
- **Slim Size** : (30x30 )mm

### Pin Assignment

Pin 1	Pin 2	Pin 3	Pin 4
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Embedded PCB antenna  
(30x30)mm

Pin 7	Pin 6	Pin 5
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Pin out	RS232(TTL level)
1	Ant 1
2	Vdd 5V DC
3	GND
4	Ant 2
5	TTL serial Data out
6	NC
7	NC

### Data Format

Baud Rate: 9600, N, 8, 1

STX (Start String)	Card data	Checksum	ETX (End String)
(1 byte) 0x55	(4 Byte Hex)	(1 Byte Hex)	(1 byte) 0xAA

Checksum : XOR Card Data (Total 4 Byte)