



PIMF-02SN-KES01

Mifare module (UID) with antenna

Ver.12.1

● Introduction

This is designed in accordance with ISO14443A standard to read the contact less smart card. It is easy to use as Mifare card reader via RS-232 interface communicated with PC.

It is designed for low cost and high security as well as convenience and reliability.



● Features

1. Lower cost with effective performance.
2. Compact size.
3. High speed data transfer.

● Specifications

Dimensions(LxWxH)mm/inch	64 x 38 x 10 / 2.5 x 1.5 x 0.4
Net Weight	9g \pm 5%
Card	Mifare ISO14443A
Operation frequency	13.56MHz
Reading range	5 \pm 1cm
Power requirements	DC+5V \pm 5%
Standby current	20mA \pm 5%
Operating current	60mA \pm 5%
Operating temperature	-10 $^{\circ}$ C ~ 75 $^{\circ}$ C
Storage temperature	-10 $^{\circ}$ C ~ 85 $^{\circ}$ C
Humidity	50%~80%

● Transmission Rate

Baud rate : 19, 200 bps

Parity bit : none

Data bit : 8

Stop bit : 1

● Reader

Host(Response)

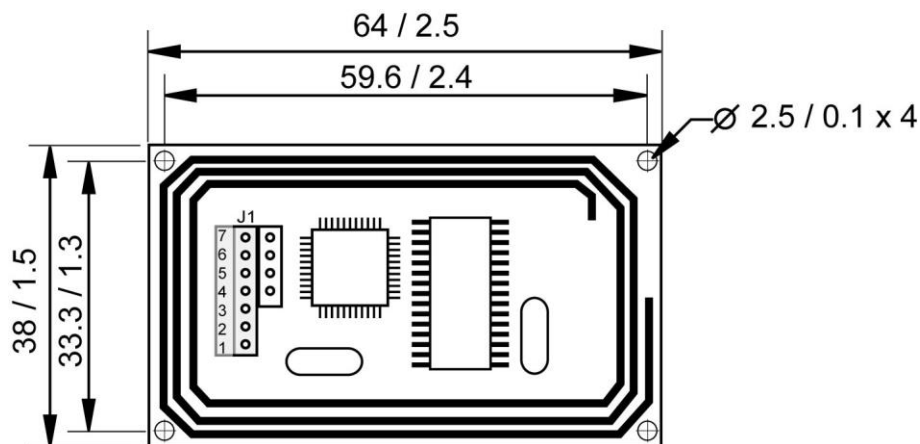
Command format :	STX	RAD	LEN	STATUS	DATA	LRC	ETX
Example: Original code:	02	01	02	00	01	02	03
ASCII code to be sent:	02h	30h, 31h	30h, 32h	30h, 30h	30h, 31h	30h, 32h	03h

STX	: Start code. 1 byte(02h)
RAD	: Reader Address. 1 byte(01H~FEh)
LEN	: Total length of STATUS & DATA
STATUS	: 1 byte. "00" is for success; "85" is for failure
DATA	: It should be followed by the contents of different command
LRC	: It's consisted of per Byte Exclusive OR from RAD to DATA. it's tantamount to $\text{RAD} \oplus \text{LEN} \oplus \text{STATUS} \oplus \text{DATA 0} \oplus \text{DATA 1} \dots \oplus \text{DATA N}$
ETX	: Ending Code. 1 byte(03h)

- ◎ Response Data Format : DATA as Command Data Format returns to ASCII.
- ◎ Take note of the contents between RAD and LRC, and mathematical calculations:
 - Excepting the response of STX & ETX, the code has been transferred to 2 Bytes of ASCII
 For example : RAD =01 transfer to 30, 31
 - Take Byte mode to perform LRC's mathematical calculations
 - For example : Response of GET RAD is as below :
 STX, RAD, LEN, STATUS, DATA, LRC, ETX
 02, 01, 02, 00, 01, 02, 03
 Response = 02, 30, 31, 30, 32, 30, 30, 30, 31, 30, 32, 03

Function	STATUS	DATA
Edit RAD	00 or 85	None
Get RAD	00 or 85	Address (1 byte)
Read Mifare S/N	00 or 85	Serial No.(4 bytes)
Read Data	00 or 85	16 bytes of the chosen block
Reset	00 or 85	None
Antenna On	00 or 85	None
Antenna Off	00 or 85	None
Load Key	00 or 85	None
Write Card Data	00 or 85	None
EDIT Reader Mode	00 or 85	None
Get Reader Mode	00 or 85	0A or 0B or 0C or 0D(1 byte), 0A:ABA, 0B:W26, 0C:W34, 0D:RS-232
EDIT Block No.	00 or 85	None
Get Block No.	00 or 85	(00~3Fh) (1 byte)

● **Dimension: Unit(mm / inch)**



- **Wire configuration**

J1			
Interface	RS-232	Wiegand	ABA
Pin no	Wire assignment		
1.(+V)	+5V	+5V	+5V
2.(G)	GND	GND	GND
3.(TX)	TX	—	—
4.(RX)	RX	—	—
5.(D0)	—	D0	DATA
6.(D1)	—	D1	CLK
7.(A)	—	—	CLS(R24 short, R10Ω)

J2	
Interface	Wiegand
Pin no	Wire assignment
1.	GND
2.	+5V
3.	D1
4.	D0

- **Packing list**

7 Pin connector x 1

Specifications subject to change without notice for further modification.
