



PIMF-18EW34T

Mifare & Mifare Ultralight UID(NFC) Module

User manual

Ver.24.1

● Introduction

PIMF-18EW34T is 13.56MHz Mifare & Mifare Ultralight UID reading module which supports Wiegand, UART(TTL) output. Only requests DC3.3~5.3V input. Compact design with mounting holes suitable for various integrations such as portable products.

We provide complete software/Hardware support and shorten schedule of RFID product development, OEM/ODM service is available.

● Features

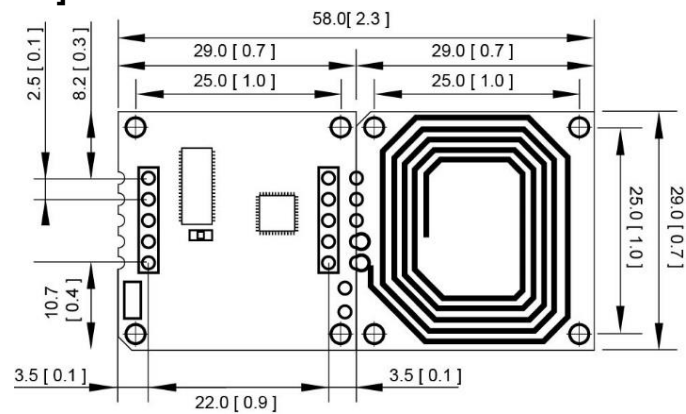
- Support Mifare ISO 14443A(UID).
- Support Wiegand 34bits, UART(TTL) Output.
- Antenna can be replaced upon request.
- Supply firmware modification accords to request of special function.
- High speed data transfer and high integrity.
- Comply with ROHS.
- With fixed holes around the corner.



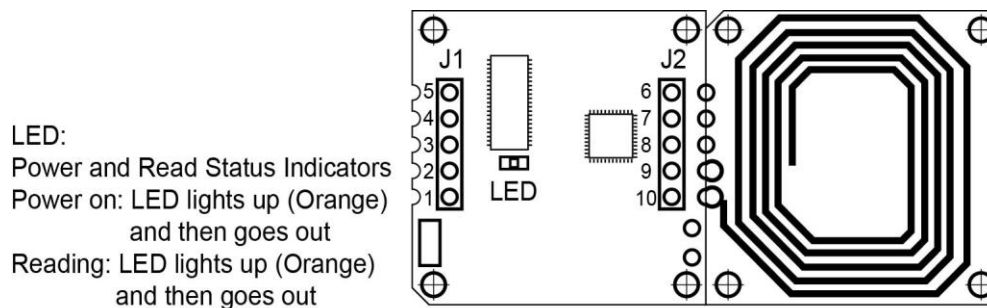
● Specification

RFID frequency	13.56MHz		
Applicable cards	Mifare, Mifare Ultralight, Mifare DESFire, NFC Tag or compatible		
Reading range (DC 5V)	Card	Card(T: 0.8mm)	Tag
	Mifare	Max. 6.0cm	Max. 3.5cm
	Mifare Ultralight	Max. 6.0cm	Max. 4.5cm
	Mifare DESFire	Max. 4.0cm	Max. 2.5cm
	NFC Tag	Max. 6.0cm	Max. 3.5cm
Output format	Wiegand 34bits, UART(TTL)		
Power input	DC 3.3~5.3V		
Standby / Working current	DC 3.3V	30mA±10% / 33mA±10%	
	DC 5.0V	40mA±10% / 40mA±10%	
Operating temperature	-10℃~70℃		
Storage temperature	-20℃~85℃		

- **Dimension: Unit: mm[inch]**



- **Wire configuration**



J1- UART(TTL) Output			
J1	Pin	Signal direction	Function
5	5	----	---
4	4	----	---
3	3	→	Tx
2	2	—	GND
1	1	←	+3.3~5.3V

J2-Wiegand Output			
J2	Pin	Signal direction	Function
6	6	→	Buzzer
7	7	→	Data 0
8	8	→	Data 1
9	9	----	Antenna
10	10	----	Antenna

- **Data formats**
- **Wiegand 34 bits**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
P	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	P
P	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E																	
																	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	P
Summed for even parity(E)																	Summed for Odd parity(O)																

- P=Starts Even parity bit and stop Odd parity bit.
- Even parity "E" is generated by summing from bit2 to bit17; Odd parity "O" is generated by summing from bit18 to bit33.

- **UART output format**

STX(02Hex)	Card No. (7 Byte)	CR(0DHex)	LF(0AHex)	ETX(03Hex)
-------------------	--------------------------	------------------	------------------	-------------------

- If the card no. is **AD49131E**, you will get the following ASCII.

STX CR LF ETX
Hex : 02H, 30H, 30H, 30H, 30H, 30H, 30H, 41H, 44H, 34H, 39H, 31H, 33H, 31H, 45H, 0DH, 0AH, 03H

- If the card no. is **806264327FD104**, you will get the following ASCII.

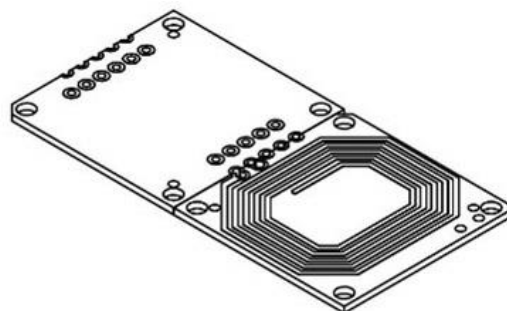
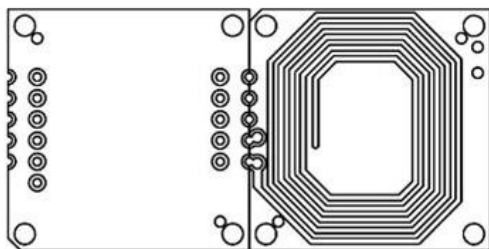
STX CR LF ETX
Hex : 02H, 38H, 30H, 36H, 32H, 36H, 34H, 33H, 32H, 37H, 46H, 44H, 31H, 30H, 34H, 0DH, 0AH, 03H

Transmission Spec.

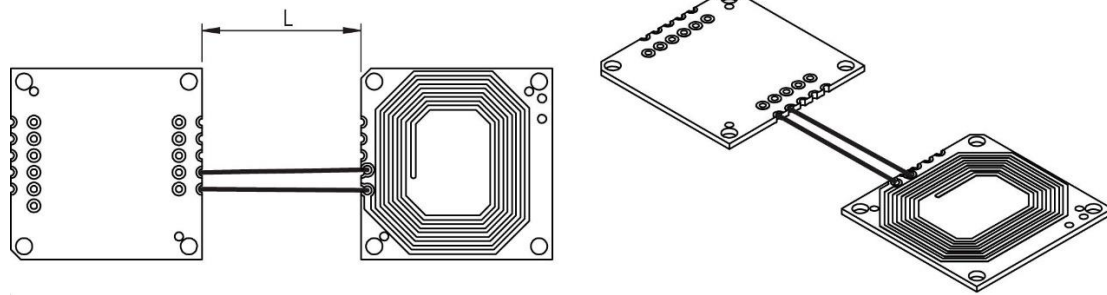
Baud rate : 9,600 bps
Parity bit : none
Data bit : 8
Stop bit : 1

- **Application**

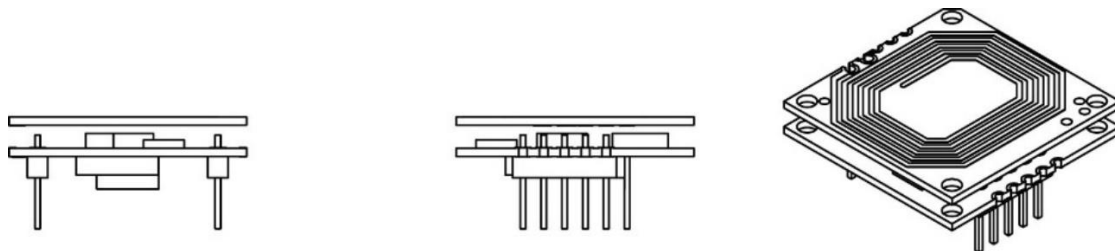
Type A



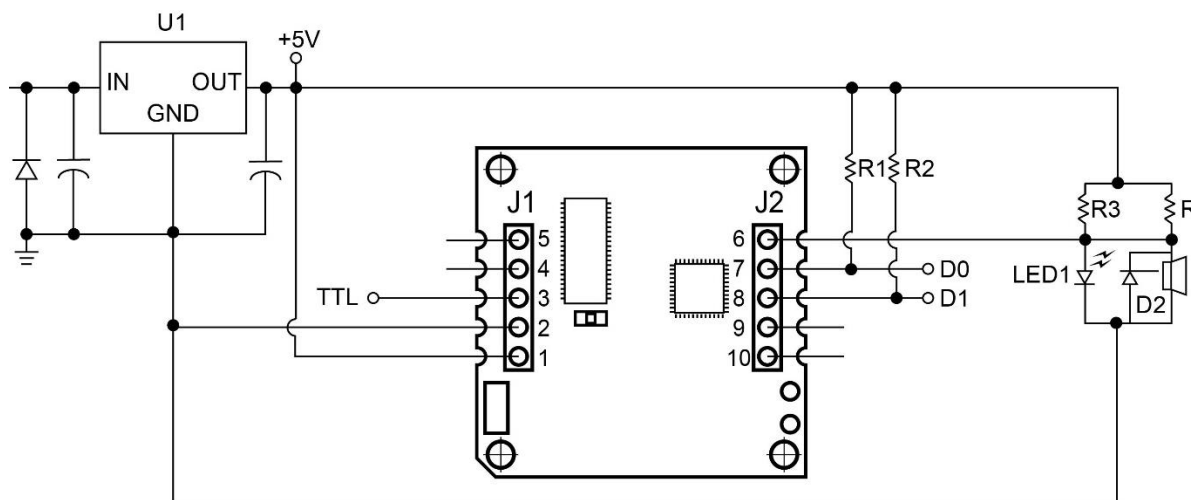
Type B



Type C



● Wiring example



D1 : 1N4007	C1, C2 : 100uF/25V
D2 : 1N4148	BZ1 : PB-09N23P-05Q
R1, R2 : 4.7K Ω	U1 : LM7805
R3 : 330 Ω	LED1 : Depends on user
R4 : 100 Ω	

Mifare is a registered trademark of NXP B.V.

Specifications subject to change without notice for further modification.

W-04-PIMF-18EW34T/E