



PIMF-18EW34T-LW

Micro Power Mifare & Mifare Ultralight UID(NFC) Module

User manual

Ver.24.1

● Introduction

PIMF-18EW34T-LW is Micro Power 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

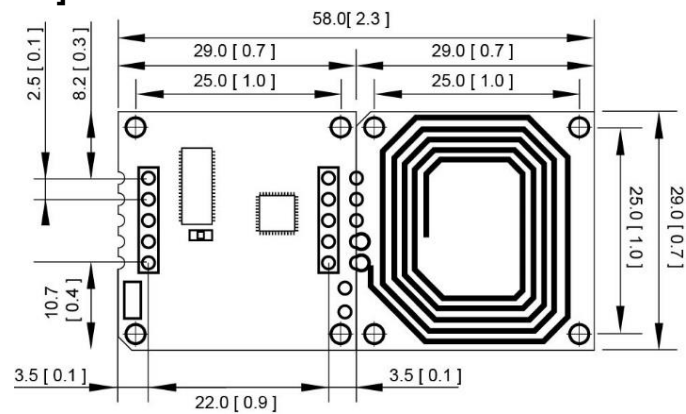
- Support Mifare ISO 14443A(UID).
- Support Wiegand 34bits, UART(TTL) Output.
- Antenna can be replaced upon request.
- Supply firmware modification accords to request of special function.
- High speed data transfer and high integrity.
- Comply with ROHS.
- With fixed holes around the corner.



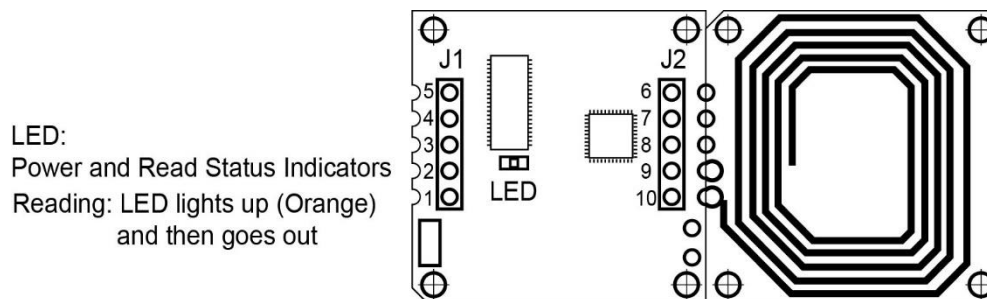
● Specification

RFID frequency	13.56MHz		
Applicable cards	Mifare, Mifare Ultralight EV1, NFC Tag		
Reading range (DC 5V)	Card	Card(T: 0.8mm)	Tag
	Mifare	Max. 6.0cm	Max. 3.5cm
	Mifare Ultralight EV1	Max. 6.0cm	Max. 4.5cm
	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	<0.5mA / 30mA±10%	
	DC 5.0V	<0.5mA / 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	----	----
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)
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- 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.

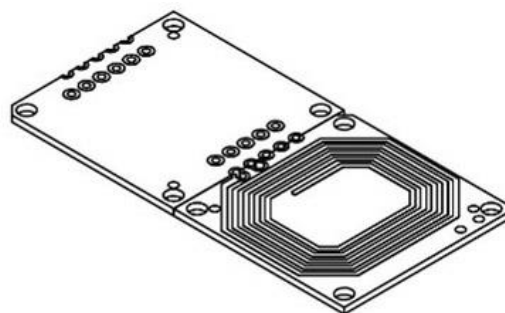
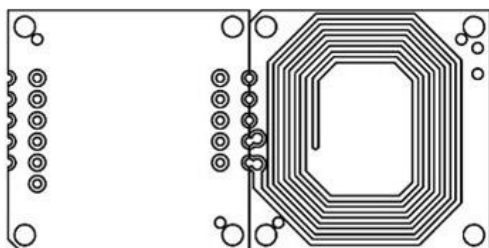
STX CR LF ETX
Hex : 02H, 38H, 30H, 36H, 32H, 36H, 34H, 33H, 32H, 37H, 46H, 44H, 31H, 30H, 34H, 0DH, 0AH, 03H

Transmission Spec.

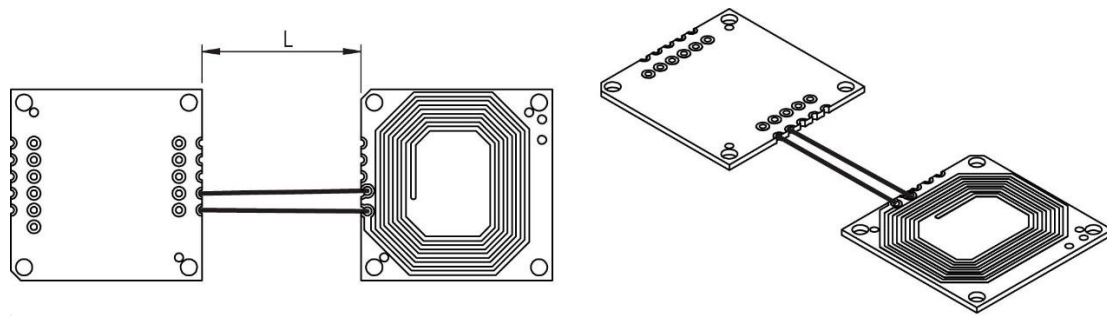
Baud rate : 9,600 bps
Parity bit : none
Data bit : 8
Stop bit : 1

- **Application**

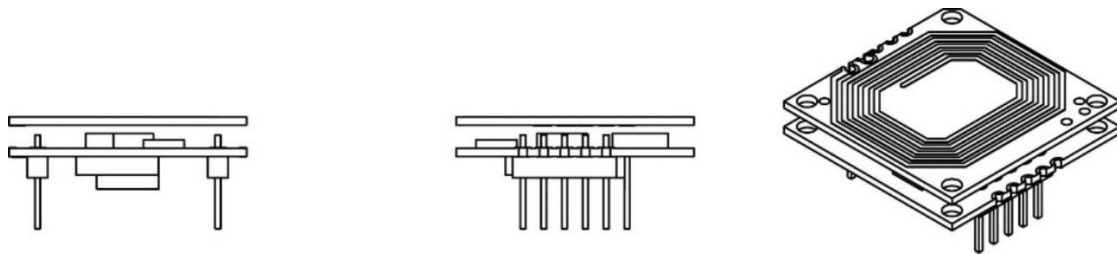
Type A



Type B



Type C



Mifare is a registered trademark of NXP B.V.

Specifications subject to change without notice for further modification.

W-04-PIMF-18EW34T-LW/E