

- **Introduction**

PIMF-18 & PIMF-H (with ABS enclosure) is Mifare 13.56MHz UID reading module which supports Wiegand 26/34 bits, USB & UART output. Only requests DC4.5~5.4V input, USB type module is power supplied via USB cable. 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.



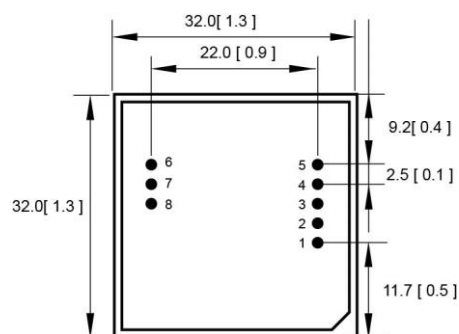
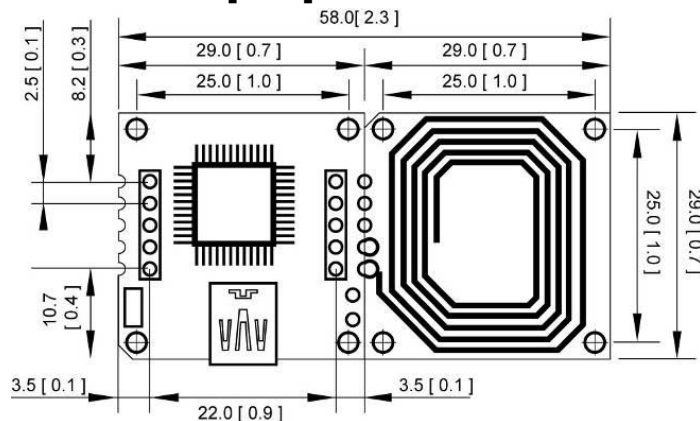
## ● Features

- Support Mifare ISO 14443A(UID)
- Support Wiegand 26/34 bits · USB · UART 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**

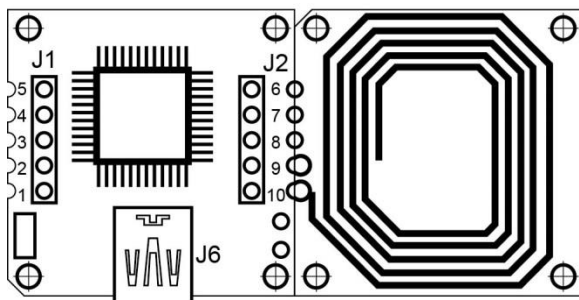
Appearance			
Model No.	PIMF-18SN	PIMF-18SN/U	PIMF-HSN
RFID frequency	13.56MHz		
Applicable cards	Mifare S50 / S70, Ultra Light or compatible		
Reading range	Card (T:0.8mm)	Max.4 cm	Max.3 cm
	Tag	Max.3cm	Max.2.5cm
Output format	Wiegand 26/34 bits, UART	USB	Wiegand 26/34 bits, UART
Power input	5V DC±10%		
Transmission spec.	9,600 bps N, 8, 1		
Standby / Working current	60mA±10% @5V DC / 56mA±10% @ 5V DC		
Material	PCB only		ABS
Dimensions(L) ×(W) ×(H) mm/inch	58 x 29 / 2.3 x 0.7		32 x 32 x 8 / 1.3 x 1.3 x 0.3
Operating temperature	-10℃~70℃		
Storage temperature	-20℃~85℃		

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

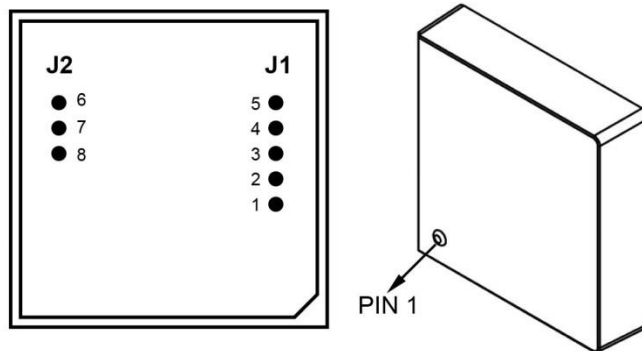


## ● Wire configuration

PIMF-18SN



PIMF-HSN



J1- UART Output			
	Pin	Signal direction	Function
	5	---	---
	4	---	---
	3	→	Tx
	2	—	GND
	1	←	+4.5~5.4V

J2-Wiegand Output					
	Pin	Signal direction	PIMF-18SN Function		PIMF-HSN Function
	6	←	Buzzer		Buzzer
	7	—	Data 0		Data 0
	8	→	Data 1		Data 1
	9	→	Antenna		---
	10	→	Antenna		---

J6 - Mini USB Connector			
	Pin	Signal direction	Function
	1	←	+5 VDC
	2	→	D-
	3	→	D+
	4	X	X
	5	—	GND

## ● Data formats

### Wiegand 26 bits output format

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
P	E	E	E	E	E	E	E	E	E	E	E	E	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.

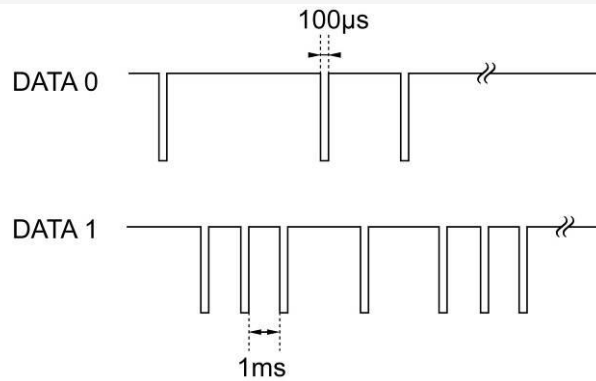
Even parity "E" is generated by summing from bit2 to bit13; Odd parity "O" is generated by summing from bit14 to bit25.

### 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 ID(8 ASCII)	CR(0DHex)	LF(0AHex)	ETX(03Hex)
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If the card no. is 00318F59, you will get the following ASCII.

STX

CR LF ETX

Hex : 02H, 30H, 30H, 33H, 31H, 38H, 46H, 35H, 39H, 0DH, 0AH, 03H

### Transmission Spec.

Baud rate : 9,600 bps

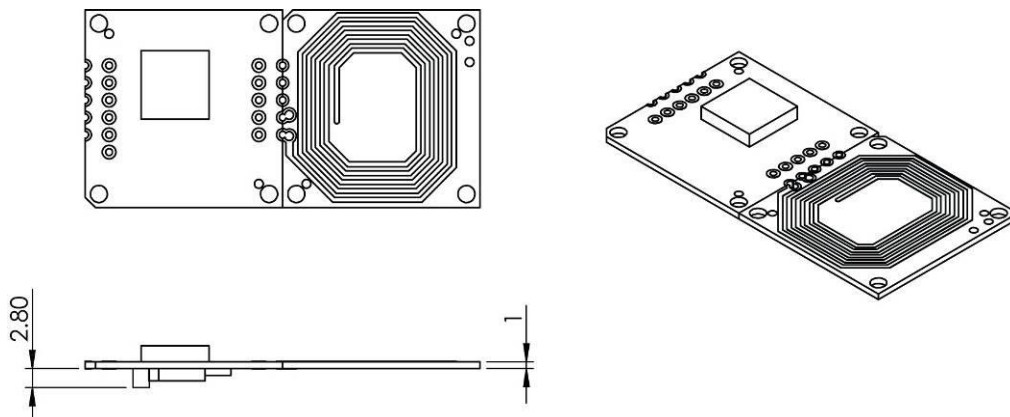
Parity bit : none

Data bit : 8

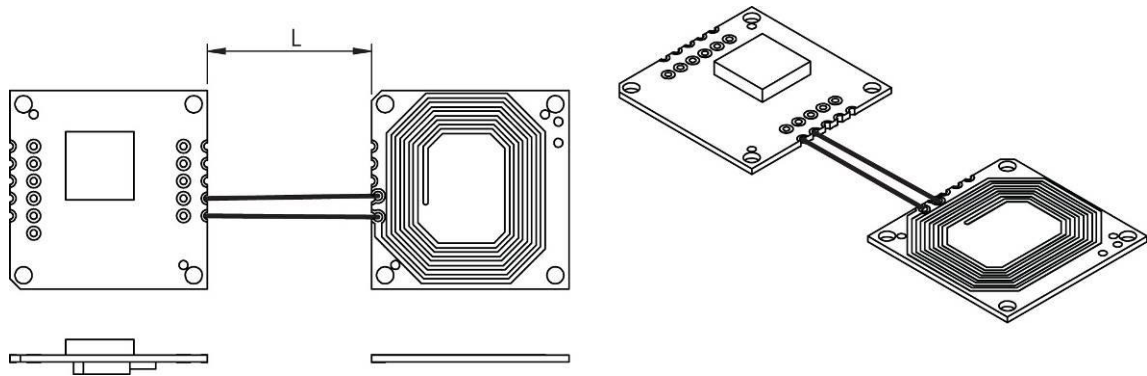
Stop bit : 1

## ● Application

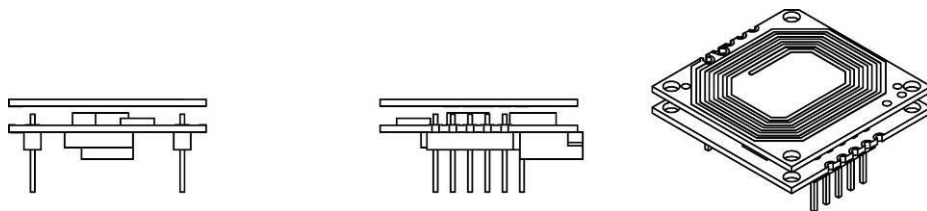
### Type A



## Type B



## Type C



### ● Ordering information

<b>PIMF-18SN/W26T</b>	:58 x 29mm, Wiegand 26 bit, UART
<b>PIMF-18SN/W34T</b>	:58 x 29mm, Wiegand 34 bit, UART
<b>PIMF-HSN/W26T</b>	:Epoxy, 32 x 32 x 8mm, Wiegand 26 bit, UART
<b>PIMF-HSN/W34T</b>	:Epoxy, 32 x 32 x 8mm, Wiegand 34 bit, UART
<b>PIMF-18SN/W26TS</b>	:58 x 29mm, Wiegand 26 bit, UART, card number: in positive
<b>PIMF-18SN/W34TS</b>	:58 x 29mm, Wiegand 34 bit, UART, card number: in positive
<b>PIMF-HSN/W26TS</b>	:Epoxy, 32 x 32 x 8mm, Wiegand 26 bit, UART, card number: in positive
<b>PIMF-HSN/W34TS</b>	:Epoxy, 32 x 32 x 8mm, Wiegand 34 bit, UART, card number: in positive
<b>PIMF-18SN/U1D01</b>	:USB interface, 58 x 29mm, 8 digit · Decimal, 3 bytes
<b>PIMF-18SN/U1D02</b>	:USB interface, 58 x 29mm, 10 digit, Decimal, 3 bytes
<b>PIMF-18SN/U1D03</b>	:USB interface, 58 x 29mm, 8 digit, Decimal, 4 bytes
<b>PIMF-18SN/U1D04</b>	:USB interface, 58 x 29mm, 10 digit, Decimal, 4 bytes
<b>PIMF-18SN/U1D05</b>	:USB interface, 58 x 29mm, 8 digit, Decimal, 3 bytes, card number: in positive
<b>PIMF-18SN/U1D06</b>	:USB interface, 58 x 29mm, 10 digit, Decimal, 3 bytes, card number: in positive
<b>PIMF-18SN/U1D07</b>	:USB interface, 58 x 29mm, 8 digit, Decimal, 4 bytes, card number: in positive
<b>PIMF-18SN/U1D08</b>	:USB interface, 58 x 29mm, 10 digit, Decimal, 4 bytes, card number: in positive
<b>PIMF-18SN/U1H01</b>	:USB interface, 58 x 29mm, 8 digit, Hexadecimal
<b>PIMF-18SN/U1H02</b>	:USB interface, 58 x 29mm, 10 digit, Hexadecimal
<b>PIMF-18SN/U1H03</b>	:USB interface, 58 x 29mm, 8 digit, Hexadecimal, card number: in positive
<b>PIMF-18SN/U1H04</b>	:USB interface, 58 x 29mm, 10 digit, Hexadecimal, card number: in positive

※ Other customer request specifications are welcomed.

Mifare is a registered trademark of NXP B.V.

**Specifications subject to change without notice for further modification.**

**W-04-PIMF-18/E**