

● Introduction




This is designed in accordance with Felica ISO 18092(UID) & Mifare ISO 14443A(UID) standard to read the contact less smart card. It is easy to use as Mifare card reader via Wiegand 26/34 bits / UART / USB interface communicated with PC. It is designed for low cost and high security as well as convenience and reliability.

● Features

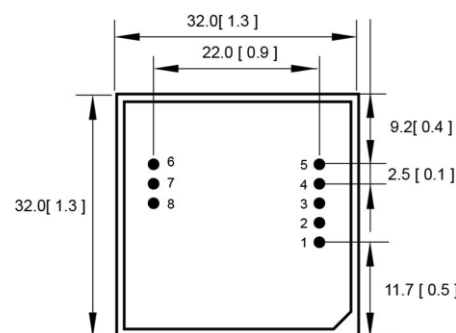
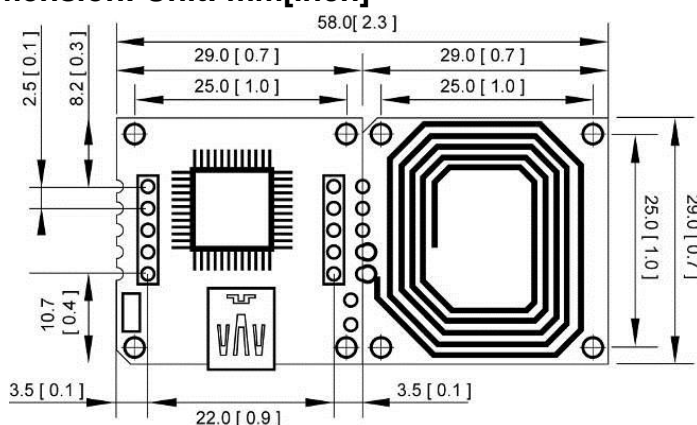
- SDK simplifies various RFID product developments.
- High data integrity.
- Felica ISO 18092(UID) & Mifare ISO 14443A(UID)
- High speed data transfer.
- Supply flexible ODM/OEM.



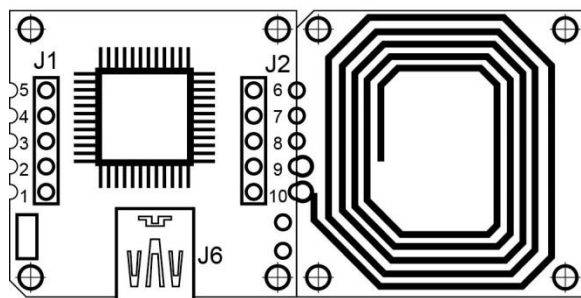
● Specification

Appearance			
Model No.	PIFC-18SN	PIFC-18SN/U	PIFC-HSN
RFID frequency	13.56MHz		
Applicable cards	Mifare S50 / S70, Felica		
Reading range	Card (T:0.8mm)	Max. 3cm	
	Tag	Max. 3cm	
Output format	Wiegand 26, 34 bits, UART	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	43mA±10% @5V DC / 50mA±10% @ 5V DC		
Material	PCB only		ABS
Dimensions(L) x(W) x(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°C ~70°C		
Storage temperature	-20°C ~85°C		

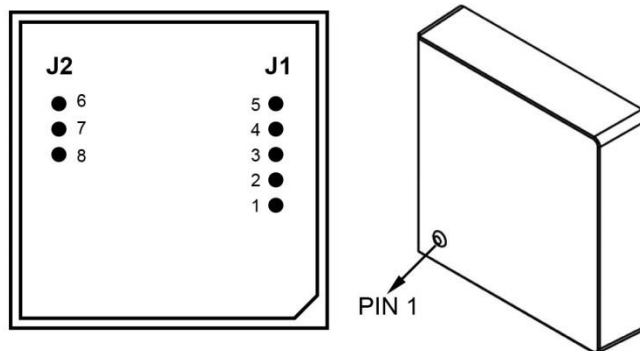
● Dimension: Unit: mm[inch]




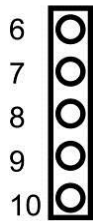
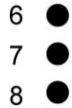
● Wire configuration
PIFC-18SN

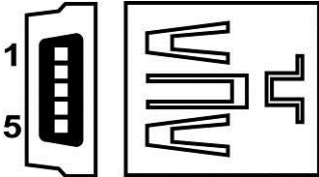


PIFC-HSN



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

J2-Wiegand Output					
	Pin	Signal direction	PIFC-18SN Function		PIFC-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.

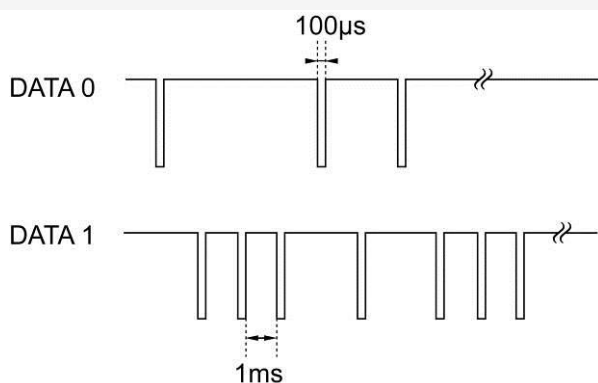
Even parity "E" is generated by summing from bit2 to bit13; Odd parity "O" is generated by summing from bit14 to bit25.

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 (For Mifare)

STX(02Hex)	CARD ID(8 ASCII)	CR	LF	ETX(03Hex)
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If the card no. is 00318F59, you will get the following ASCII.

STX

ETX

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

UART output format (For Felica)

STX(02Hex)	Manufacture Code(4 ASCII)	CARD ID(12 ASCII)	CR	LF	ETX(03Hex)
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If the card no. is 0127006292D44EE1, you will get the following ASCII.

STX

ETX

Hex : 02H 30H 31H 32H 37H 30H 30H 36H 32H 39H 32H 44H 34H 34H 45H 45H 31H 0DH 0AH 03H

Transmission Spec.

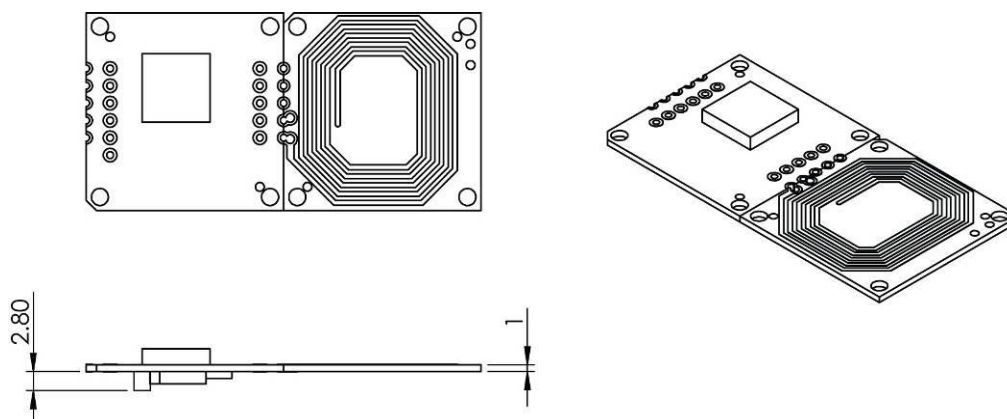
Baud rate : 9,600 bps

Parity bit : none

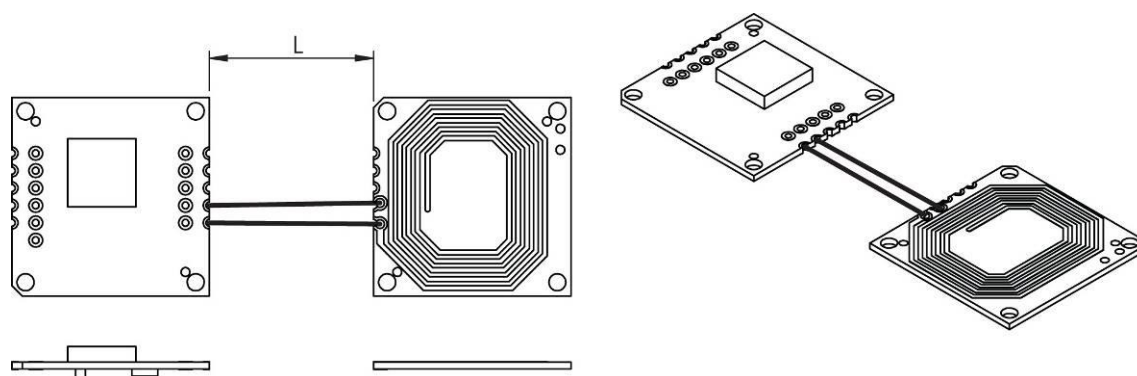
Data bit : 8

Stop bit : 1

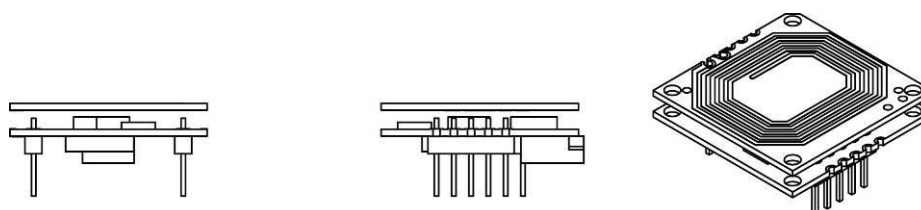
- **Application**
Type A



- Type B**



- Type C**



- **Ordering information**

PIFC-18SN/U1W26T	:58 x 29mm, USB, Wiegand 26 bit, UART
PIFC-18SN/U1W34T	:58 x 29mm, USB, Wiegand 34 bit, UART
PIFC-18SN/W26T	:58 x 29mm, Wiegand 26 bit, UART
PIFC-18SN/W34T	:58 x 29mm, Wiegand 34 bit, UART
PIFC-HSN/W26T	:Epoxy, 32 x 32 x 8mm, Wiegand 26 bit,
PIFC-HSN/W34T	:Epoxy, 32 x 32 x 8mm, Wiegand 34 bit,
※ Other customer request specifications are welcomed.	

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Specifications subject to change without notice for further modification.

W-04-PIFC-18/E