



Introduction

RFID 13.56MHz Modules support Read and Write system of ISO14443A、ISO14443B、ISO15693(ICODE2、ST LRI12、Tag-IT HF-I)、DESFire, the module has integrated with antenna (it also can connect an external antenna upon request), supplies output format includes UART(RS-232)、Wiegand 26/34 bits、ABA、USB. Only requests DC4.5~5.4V input, USB type module supplies power via USB cable. Compact design with mounting holes, RFID 13.56MHz Read and Write Module is suitable for various integration such as portable product. We provide complete software/Hardware support and shorten schedule of RFID product development, OEM/ODM service is available.

Features

- Supply firmware upon customer's request.
- High data integrity / High speed data transfer.
- Anti-collision.
- Comply with ROHS, CE certification.

Dimensions Unit: (mm / inch)

Model No.	PXMF-01SN / PXMF-01BK / PXMF-01MD	PIMF-02SN / PIMF-02BK / PIMF-02MD	PIMF-02SN/U / PIMF-02BK/U / PIMF-02MD/U	PIMF-05SN / PIMF-05BK / PIMF-05MD
Appearance				
Dimensions				
Model No.	PIMF-CSN	PIMF-04SN	PIMF-18SN	PIMF-HSN
Appearance				
Dimensions				
Model No.	PIMF-14SN		PIMF-14SN-1	
Appearance				
Dimensions				

Firmware features

Firmware version	Y1 (SN version)	Y1 (BK version)	Y3	Y4						Y6	DS01	DS02	DS03	Z1
Card number order	In reverse	In reverse	In positive	In reverse (V28-3)	In reverse (V28-3 ANTON)	In positive (V28-4)	In positive (V28-6)	In reverse (V29-2)	In positive (V29)	In positive	In positive	In positive	In positive	In positive
Read serial number(UID)	●		●	●	●	●	●	●	●	●	●	●	●	●
Read block	●	●	●	●	●	●	●	●	●	●	●			●
Read multi-block				●	●	●	●	●	●					
Enable Auto Scan Read DESFire Card													●	
Read & Write data into the DESFire card's file 1~4												●	●	
Write block		●	●	●	●	●	●	●	●	●	●			●
Write keyA		●	●	●	●	●	●	●	●	●	●			●
Write keyB				●	●	●	●	●	●	●	●			●
Modify KeyA/KeyB				●	●	●	●	●	●	●	●			●
Change the key of the DESFire card's file 1~4												●	●	
Open/Close LED · BUZZER							●							
Antenna function on					●					●				
Add / Reduce value										●				
Transmission Spec.														
9,600 bps	●	●	●	●	●	●	●	●	●	●	Default			●
19,200 bps				Default	Default	Default	Default	Default	Default		●			●
115,200 bps								●	●			●	●	Default
SDK														
BC														●
DELPHI														●
PB														●
VB6	●	●	●	●	●	●	●	●	●		●			●
VB.NET				●	●	●	●							●
VC														●
C#				●	●	●	●					●	●	●
Anti-collision	●	●	●	●	●	●	●					●	●	● Just for ISO15693
Output format(Interface)														
RS-232	●	●	●	●	●	●	●	●	●		●	●	●	●
Wiegand 26bits output	●	●												
Wiegand 34bits output	●													
ABA output	●	●												
ISO standard														
ISO14443A	●	●	●	●	●	●	●	●	●	●	●	●	●	●
ISO14443B														●
ISO15693														●
DESFire											●	●	●	
On-line	●	● Can set up parameter write card	●	●	●	●	●	●	●	●	●	●	●	●
Standalone	● UART/Wiegand 26/34bit /ABA output	● UART/Wiegand 26bit /ABA output	●											
Application field	Access control	●	●	●	●	●	●	●	●	●	●	●	●	●
	Time attendance	●	●	●	●	●	●	●	●	●	●	●	●	●
	Membership schemes	●	●	●	●	●	●	●	●	●	●	●	●	●
	Logistics	●	●	●	●	●	●	●	●	●	●	●	●	●
	Production control	●	●	●	●	●	●	●	●	●	●	●	●	●
	ID card	●	●	●	●	●	●	●	●	●	●	●	●	●
	POS system	●	●	●	●	●	●	●	●	●	●	●	●	●
	Toy	●	●	●	●	●	●	●	●	●	●	●	●	●
	Electronic purse	●	●	●	●	●	●	●	●	●	●	●	●	●
	Electric keys	●	●	●	●	●	●	●	●	●	●			●
	Automatic fare collection				●	●	●	●	●	●	●	●	●	●
	BUS/train/airline ticketing				●	●	●	●	●	●	●	●	●	●
	Vending				●	●	●	●	●	●	●	●	●	●
	Asset tracking				●	●	●	●	●	●	●	●	●	●
	Gambling				●	●	●	●	●	●	●	●	●	●
	Road tolling				●	●	●	●	●	●	●			
Park and ride schemes				●	●	●	●	●	●	●				
Pre-paid metering				●	●	●	●	●	●	●				

Note 1

Ex.: Card UID(Card No. in positive, Hexadecimal) : **7C 90 E0 65**

	Hexadecimal		Decimal (10 digits)	Decimal (8 digits)
Card No. in positive	7C 90 E0 65	→	2089869413	14457445
			7C 90 E0 65 ↓ 2089869413	90 E065 ↓ ↓ 144 57445
			Code: D08	Code: D05
Card No. in reverse	65 E0 90 7C	→	1709215868	22436988
			65 E0 90 7C ↓ 1709215868	E0 907C ↓ ↓ 224 36988
			Code: D04	Code: D01









Specification






Firmware	Model No.	Dimensions (LxWxH)mm	Net weight	Reading range	With internal antenna	Supported Tag-ICs	Power requirement	Format(Interface)		
Y1	PXMF-01SN	53 x 23 x 9	6.8g±5%	Depending on tag size, tag type and antenna size	NO	Mifare S50 / S70, Mifare Ultralight, NFC Tag and compatible card	DC4.5~5.4V	Depended on "Firmware features"		
Y3	PIMF-CSN	40 x 40 x 10	21.6g ±5%	5±1cm	YES			Mifare S50 / S70, Mifare Ultralight, NFC Tag and compatible card	DC4.5~5.4V	USB
Z1	PIMF-02SN	64 x 38 x 9	9.4g±5%	5±1cm						Depended on "Firmware features"
	PIMF-02SN/U	67 x 38 x 11	10.6g±5%	5±1cm						USB
	PIMF-04SN	38 x 38 x 5	17g±5%	5±1cm						Depended on "Firmware features"
	PIMF-05SN	64 x 56 x 9	10.6g±5%	7±1cm						USB
Y1	PXMF-01BK	53 x 23 x 9	6.8g±5%	Depending on tag size, tag type and antenna size	NO	Mifare S50 / S70, Mifare Ultralight, NFC Tag and compatible card	DC4.5~5.4V	Depended on "Firmware features"		
Y3	PIMF-02BK	64 x 38 x 9	9.4g±5%	5±1cm	YES			Mifare S50 / S70, Mifare Ultralight, NFC Tag and compatible card	DC4.5~5.4V	USB
Y4 Series	PIMF-02BK/U	67 x 38 x 11	10.6g±5%	5±1cm						Depended on "Firmware features"
Z1	PIMF-05BK	64 x 56 x 9	10.6g±5%	7±1cm						USB
	PXMF-01MD	53 x 23 x 9	6.8g±5%	Depending on tag size, tag type and antenna size						NO
DS01	PIMF-02MD	64 x 38 x 9	9.4g±5%	5±1cm	YES	Mifare S50 / S70, Mifare Ultralight, Mifare DESFire, NFC Tag and compatible card	DC4.5~5.4V	USB		
DS02	PIMF-02MD/U	67 x 38 x 11	10.6g±5%	5±1cm				Depended on "Firmware features"		
DS03	PIMF-05MD	64 x 56 x 9	10.6g±5%	7±1cm				USB		
---	PIMF-18SN	58 x 29	5.6g±5%	3±1cm	YES	Mifare S50 / S70, Mifare Ultralight, NFC Tag and compatible card	DC4.5~5.4V	Wiegand 26/34 bits / TTL / USB		
---	PIMF-HSN	32 x 32 x 8	12g±5%	3±1cm	YES	Mifare S50 / S70, Mifare Ultralight, NFC Tag and compatible card	DC4.5~5.4V	Wiegand 26/34 bits / TTL		
---	PIMF-14SN	63.6 x 37.3	7.6g±5%	4±1cm	YES	Mifare S50 / S70, Mifare Ultralight, NFC Tag and compatible card	DC4.5~5.4V	USB / UART		

Ordering Information

P MF - /

I: With internal antenna X: Without internal antenn	MF: Mifare	Dimensions 01: 53(L)x23(W)x9(H)mm 02: 64(L)x38(W)x9(H)mm 04: 38(L)x38(W)x5(H)mm 05: 64(L)x56(W)x9(H)mm 14: 63.6(L)x37.3(H)mm 18: 58(L)x29(W)mm C: 40(L)x40(W)x10(H)mm H: 32(L)x32(W)x8(H)mm	SN: Read Serial Number(UID) BK: Read & Write block MD: DESFire Format	U: USB Interface U3: USB Interface with serial port emulator Please refer to "Firmware features".	Please refer to "Firmware features".
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Appearance	Model No.	Feature		Antenna		Firmware version	ISO Standard			Anti-collision	Other Features
		Read Serial Number(UID)	Read & Write	Internal	Require additional		14443A	14443B	15693		
	PXMF-01SN	•			•	Y1(SN version)	•			•	
	PXMF-01BK/Y4		•		•	Y4	•			•	
	PXMF-01BK/Z1		•		•	Z1	•	•	•	Just for ISO15693	
	PIMF-02SN	•		•		Y1(SN version)	•			•	
	PIMF-02BK		•	•		Y1(BK version)	•			•	
	PIMF-02BK/Y4		•	•		Y4	•			•	
	PIMF-02BK/TY4		•	•		Y4	•			•	UART (TTL) Format
	PIMF-02BK/Y4-9		•	•		Y4	•			•	Default:9,600 bps
	PIMF-02BK/Y4-ON		•	•		Y4	•			•	Antenna automatically open when the power is turned on.
	PIMF-02BK/Z1		•	•		Z1	•	•	•	Just for ISO15693	
	PIMF-02BK/U2Y4		•	•		Y4	•			•	Read /White by USB
	PIMF-02BK/U2Z1		•	•		Z1		•	•	Just for ISO15693	Read /White by USB
	PIMF-02MD/TDS02		•	•		DS02	•			•	UART (TTL) Format
	PIMF-04SN/W26-Y1	•		•		Y1(SN version)	•			•	
	PIMF-05BK/Y4		•	•		Y4	•			•	
	PIMF-05BK/Z1		•	•		Z1	•	•	•	Just for ISO15693	
	PIMF-CSN	•		•		Y1(SN version)	•			•	
	PIMF-02MD/TDS02		•	•		DS02	•			•	UART (TTL) Format

Appearance	Model No.	Antenna		Output format(Interface)				Numeral system		Digits		Other Features
		Internal	Require additional	Wiegand		USB	UART(TTL)	Decimal	Hexadecimal	8 digits	10 digits	
				26 bits	34 bits							
	PIMF-18SN/W26T	•		•			•					
	PIMF-18SN/W34T	•			•		•					
	PIMF-18SN/W26TS	•		•			•					Card number: In positive>Note 1
	PIMF-18SN/W34TS	•			•		•					Card number: In positive>Note 1
	PIMF-HSN/W26T	•		•			•					
	PIMF-HSN/W34T	•			•		•					
	PIMF-HSN/W26TS	•		•			•					Card number: In positive>Note 1
	PIMF-HSN/W34TS	•			•		•					Card number: In positive>Note 1
	PIMF-18SN/U1D01	•					•			•		Read card number 3bytes
	PIMF-18SN/U1D02	•					•				•	Read card number 3bytes
	PIMF-18SN/U1D03	•					•			•		Read card number 4bytes
	PIMF-18SN/U1D04	•					•				•	Read card number 4bytes
	PIMF-18SN/U1D05	•					•			•		Read card number 3bytes
	PIMF-18SN/U1D06	•					•				•	Read card number 3bytes
	PIMF-18SN/U1D07	•					•			•		Read card number 4bytes
	PIMF-18SN/U1D08	•					•				•	Read card number 4bytes
	PIMF-18SN/U1H01	•					•		•		•	
	PIMF-18SN/U1H02	•					•			•		•
	PIMF-18SN/U1H03	•					•		•		•	
	PIMF-18SN/U1H04	•					•		•		•	
	PIMF-18SN/H01T	•					•	•		•	•	
	 	PIMF-14SNU1D01	•					•	•		•	
PIMF-14SNU1D02		•					•	•			•	Read card number 3bytes
PIMF-14SNU1D03		•					•	•		•		Read card number 4bytes
PIMF-14SNU1D04		•					•	•			•	Read card number 4bytes
PIMF-14SNU1D05		•					•	•		•		Read card number 3bytes
PIMF-14SNU1D06		•					•	•			•	Read card number 3bytes
PIMF-14SNU1D07		•					•	•		•		Read card number 4bytes
PIMF-14SNU1D08		•					•	•			•	Read card number 4bytes
PIMF-14SNU1H01		•					•	•	•		•	
PIMF-14SNU1H02		•					•	•		•		•
PIMF-14SNU1H03		•					•	•		•		•
PIMF-14SNU1H04		•					•	•		•		•

Introduction

This is designed in accordance with Felica ISO 18092(UID) & Mifare ISO 14443A(UID) standard to read the contact less smart card. Only requests DC4.5~5.4V input, USB type module supplies power via USB cable. It is designed for low cost and high security as well as convenience and reliability.






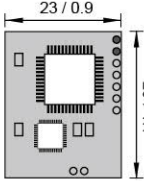
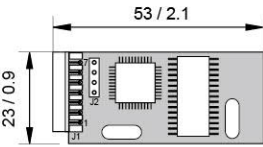
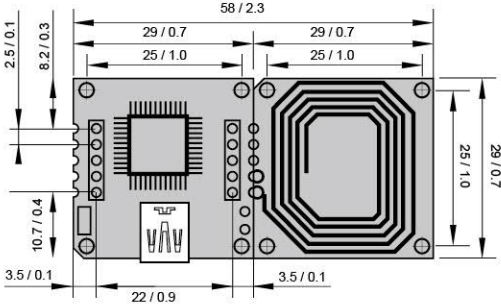
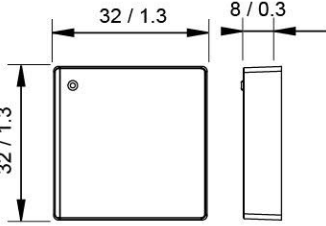
Compact design with mounting holes, the module is suitable for various integration such as portable product. We provide complete hardware support and shorten schedule of RFID product development, OEM/ODM service is available.

Features






- Support Felica ISO 18092(UID) & Mifare ISO 14443A(UID).
- Support Wiegand 26/34 bits, USB, UART(TTL), RS-232 output.
- Supply firmware upon customer's request.
- High data integrity.
- High speed data transfer.
- Comply with ROHS.

Dimensions

Unit: (mm / inch)

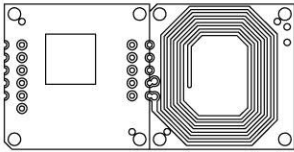
Model No.	PXFC-13SN	PXFC-01SN	PIFC-18SN	PIFC-18SN/U	PIFC-HSN
Appearance					
Dimensions					

Specification

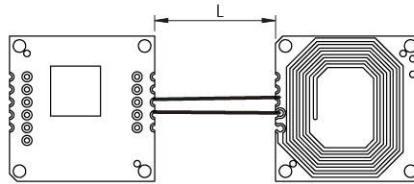
Appearance	Model No.	Dimensions (LxWxH)mm	Net weight	Reading range	With internal antenna	Output format(Interface)	Transmission spec.	Supported Tag-ICs
	PXFC-13SN	29 x 23	3.5g±5%	Depending on tag size, tag type and antenna size	NO	Wiegand 26/34 bits, UART(TTL), RS-232(Optional)	9,600 bps, N,8,1 (UART)	Mifare S50 / S70, Mifare Ultralight, NFC Tag, Felica or compatible.
	PXFC-01SN	53 x 23	6.6g ±5%	Depending on tag size, tag type and antenna size	NO	Wiegand 26/34 bits, UART(TTL), RS-232(Optional)		
	PIFC-18SN	58 x 29	5.6g±5%	Card(T)0.8mm: 3±1cm Tag: 2±1cm	YES	Wiegand 26/34 bits, UART(TTL)		
	PIFC-18SN/U	58 x 29	6.2g±5%	Card(T)0.8mm: 3±1cm Tag: 2±1cm	YES	Wiegand 26/34 bits, UART(TTL), USB		
	PIFC-HSN	32 x 32 x 8	12g±5%	Card(T)0.8mm: 3±1cm Tag: 2±1cm	YES	Wiegand 26/34 bits, UART(TTL)		

Application PIFC-18 series

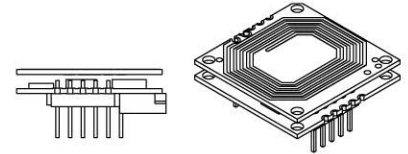
Type A



Type B



Type C



Optional Antenna For PXFC-13 / PXFC-01 series

Antenna Model No.	Dimension	Reading Range(Depending on tag size, tag type)
R-17-PP87/1.2UH-COIL	68 x 96MM	5CM
R-17-PUA310M2/COIL	58.5 x 69.5MM	6CM
R-17-PP3702/M COIL	79 x 103MM	7CM
R-17-PM6750/COIL	51.3 x 65.5MM	4.5CM
R-17-PZ85/COIL/M	53 x 78MM	3CM
R-17-PP110M2/COIL	33 x 81MM	4CM

Ordering Information

Appearance	Model No.	Antenna		Output format(Interface)				Power requirement	
		Internal	Require additional	Wiegand		USB	RS-232		UART(TTL)
				26 bits	34 bits				
	PXFC-13SN/W26		•	•				DC 5V	
	PXFC-13SN/W34		•		•				
	PXFC-13SN/T		•				•		
	PXFC-13SN/R2		•				•		
	PXFC-01SN/W26		•	•					
	PXFC-01SN/W34		•		•				
	PXFC-01SN/T		•				•		
	PXFC-01SN/R2		•				•		
	PIFC-18SN/U1W26T	•		•		•			
	PIFC-18SN/U1W34T	•			•	•			
	PIFC-18SN/W26T	•		•			•		
	PIFC-18SN/W34T	•			•		•		
	PIFC-HSN/W26T	•		•			•		
	PIFC-HSN/W34T	•			•		•		

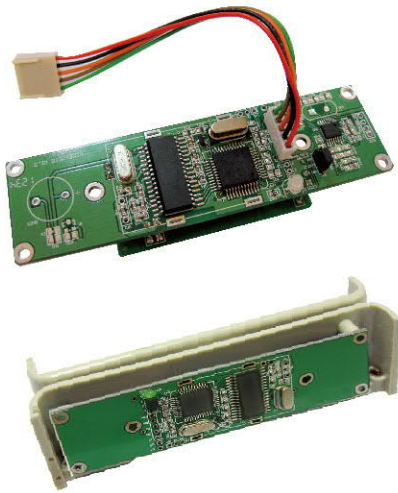
※ Other customer request specifications are welcomed.

Mifare is a registered trademark of NXP B.V.

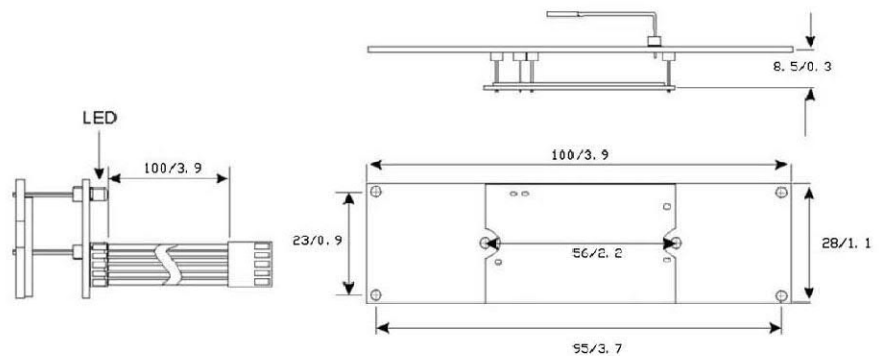
MIFARE DESFire is a registered trademark of NXP B.V.

FeliCa is a trademark of Sony Corporation.

PIMF-10WAS



Dimensions Unit: (mm / inch)



Introduction

- PIMF-10WAS is designed to upgrade from Magnetic stripe products to RFID contactless products. Complete replacing MSR by hole pitch & connector (could accept ODM order), other Wiegand 26 bits, UART output is selectable by jumper.

Features

- Compact size for easy designed-in.
- Lower cost with effective performance.
- Application: Collecting Auto-ID data, POS, access controller & time attendance recorder, security solution...etc.
- Other OEM, ODM specification are welcome. (MOQ is 200pcs)

Specification

Dimension	100 (L) x 28 (w) x 8.5 (H) mm
Reading distance	30~60mm
Frequency	13.56MHz
Power consumption	5V DC±5%, 70mA(Standby) / 100mA(Operating)
Output interface	Wiegand 26bits, ABA Track2, UART(TTL) (Select by jump SJ1)
Transmit spec.	9,600 bps, N,8,1
Transponders/Card/Tag supported	Mifare MF1 standard cards for 1024/4096 bytes and Mifare UltraLight cards for ISO 14443A
ID contents	* UID (Unique Serial Number) for identification. * For other blocks could be selected by UART 2 selection thru supported applications software.
Operating temperature	-10°C~60°C
Humidity	10%~90%