

● Introduction

PIMF-HSNAT-IVA2 (with ABS enclosure) is Mifare & Mifare Ultralight 13.56MHz UID reading module which supports ABA, UART output. Only requests DC4.9~5.4V input.

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



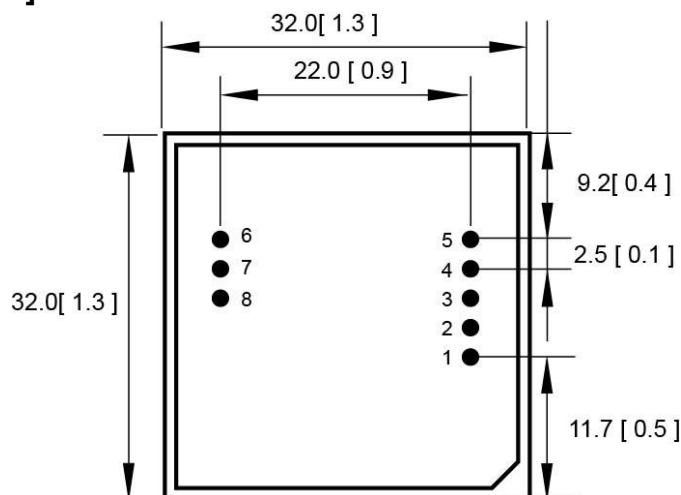
● Features

- Support Mifare ISO 14443A(UID)
- Support ABA, UART Output.
- Supply firmware modification accords to request of special function
- High speed data transfer and high integrity
- Comply with ROHS

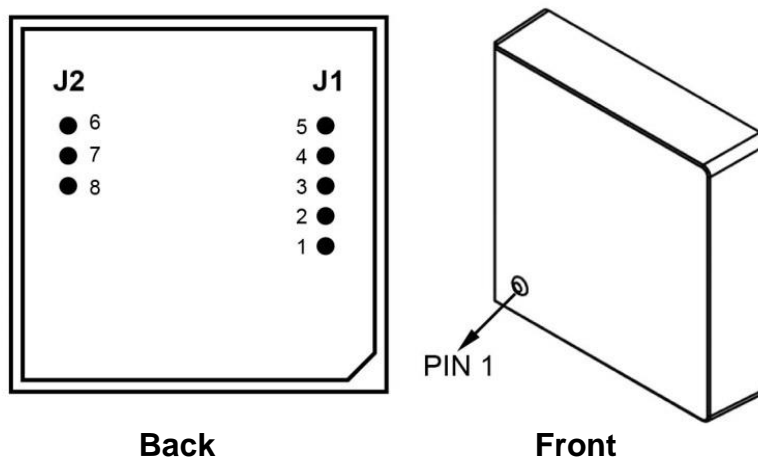
● Specification

RFID frequency	13.56MHz
Applicable cards	Mifare S50 / S70, Mifare Ultralight or compatible
Reading range	Card (T:0.8mm)Max.2.5 cm
Output format	ABA, UART
Power input	5VDC±10%
Transmission spec.	9,600 bps N, 8, 1
Sleep current	0mA@5VDC
Standby current	51mA ±10%@5VDC
Working current	52mA ±10%@5VDC
Material	ABS
Dimensions(L) x (W) x (H) mm/inch	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**



J1- UART Output			
J1 5 ● 4 ● 3 ● 2 ● 1 ●	Pin	Signal direction	Function
	5	→	CLS
	4	←	Log. 1: Sleep Mode Log. 0: Reads Continuously
	3	→	Tx
	2	—	GND
	1	←	+4.9~5.4V
J2- ABA Output			
J2 ● 6 ● 7 ● 8	Pin	Signal direction	Function
	6	→	Buzzer
	7	→	DATA
	8	→	CLK

- **Data formats**

ABA output format

Magnetic stripe ABA Track2 output format (For Mifare)

SS	CARD ID(10D)	ES	LRC
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SS is the start sentinel character of 11010

ES is the end character of 11111

LRC is the longitudinal redundancy check.

Magnetic stripe ABA Track2 output format (For Ultralight)

SS	CARD ID(17D)	ES	LRC
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SS is the start sentinel character of 11010

ES is the end character of 11111

LRC is the longitudinal redundancy check.

UART output format

STX(02HEX)	CARD ID(8 ASCII)	CR(0XDH)	LF(0XAH)	ETX(03HEX)
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If the card no. is **00318F59**, you will get the following ASCII.

STX

CR

LF E

TX

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

Transmission Spec.

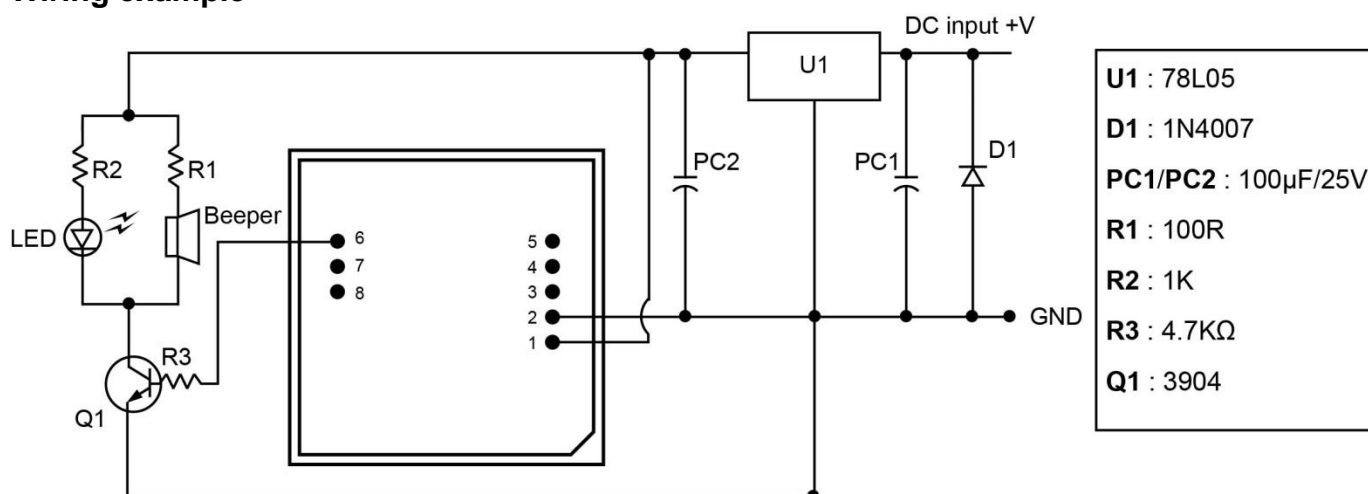
Baud rate : 9,600 bps

Parity bit : none

Data bit : 8

Stop bit : 1

- **Wiring example**



Mifare is a registered trademark of NXP B.V.

Specifications subject to change without notice for further modification.

W-04- PIMF-HSNAT-IVA2/E