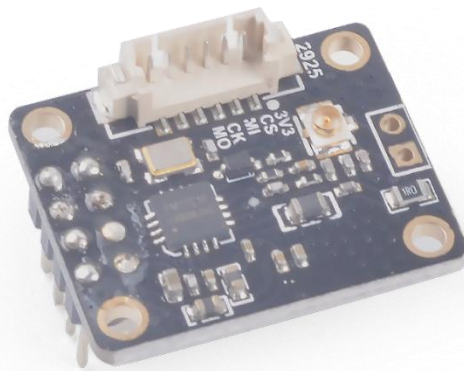# SP-RFID Datasheet

v1.0

Features:

- Using SP-MOD SPI to communicate with RFID module.
- The RIFC IC is FM17510.
- Supports non-contact reader mode in accordance with ISO/IEC 14443 protocol,
- ISO14443 TYPEA supports communication rate : 106kbps，212kbps，424kbps
- 64Byte TRANSCeiver buffer FIFO
- Size :25*20mm
- Connection method: SP-MOD (2*4P 2.54mm pin header)

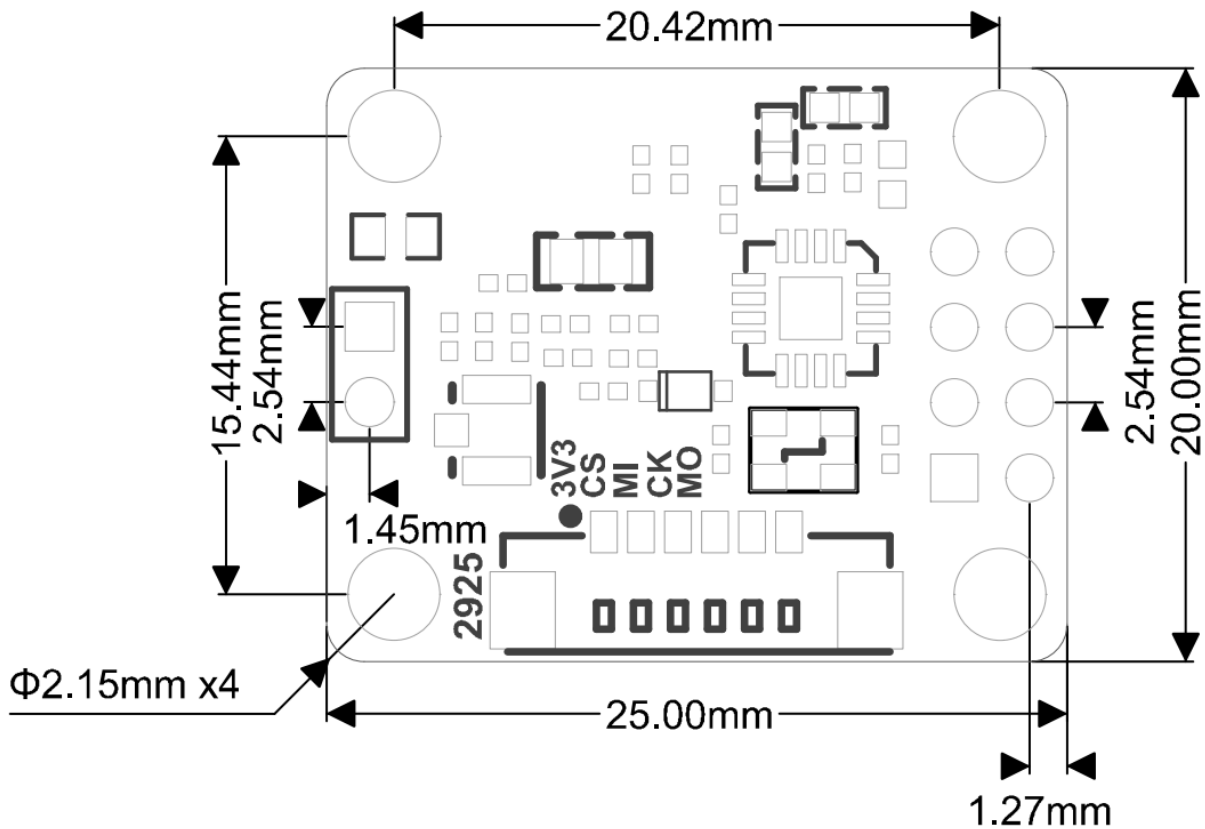| UPDATE	
V1.0	2019/4/5 Published original document

INTRODUCTION	
RFID IC：FM17510	Supports non-contact reader mode in accordance with ISO/IEC 14443 protocol Reader mode supports M1 encryption algorithm ISO14443 TYPEA supports communication rate: 106kbps，212kbps， 424kbps . Support SPI serial interface, up to 10Mbps Host interface independent power supply，voltage range: 2.2~3.6V Range of working temperature -40℃ ~ 85℃ 64Byte TRANSCeiver buffer FIFO. Interrupt output mode can be equipped with flexible Multiple low-power modes: Soft powerdown Mode, Hard powerdown Mode, Deep powerdown Mode(Typical value 1uA) Support low-power external card detection Programmable timer Built-in oscillator circuit and external 27.12MHz crystal oscillator Wide voltage working range 2.2V~3.6V Built-in CRC coprocessor

HARDWARE FEATURES	
Supply voltage of external power supply	2.2V~3.6V
Supply current of external power supply	<100mA
Temperature rise	<30K
Range of working temperature	-40℃ ~ 85℃

SIZE	
Length	25mm
Width	20mm
Range of working temperature	13.3 mm

PIN DESCRIPTION		
1	GND	Ground
2	CS	Chip Select input pin
3	SO	Master In Slave Out
4	NPD	Reset/Sleep control pin
5	3V3	Power supply(3.3V)
6	SCK	SPI clock pin

7	SI	Master Out Slave In
8	IRQ	Interrupt output pin

RESOURCES	
Official Website	www.sipeed.com
Github	https://github.com/sipeed
BBS	http://bbs.sipeed.com
Wiki	maixpy.sipeed.com
Sipeed Model Store	https://maixhub.com/
SDK Reference	dl.sipeed.com/MAIX/SDK
HDK Reference	dl.sipeed.com/MAIX/HDK
E-mail(Technical Support)	support@sipeed.com
Telgram Link	https://t.me/sipeed
QQ Group	878189804

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