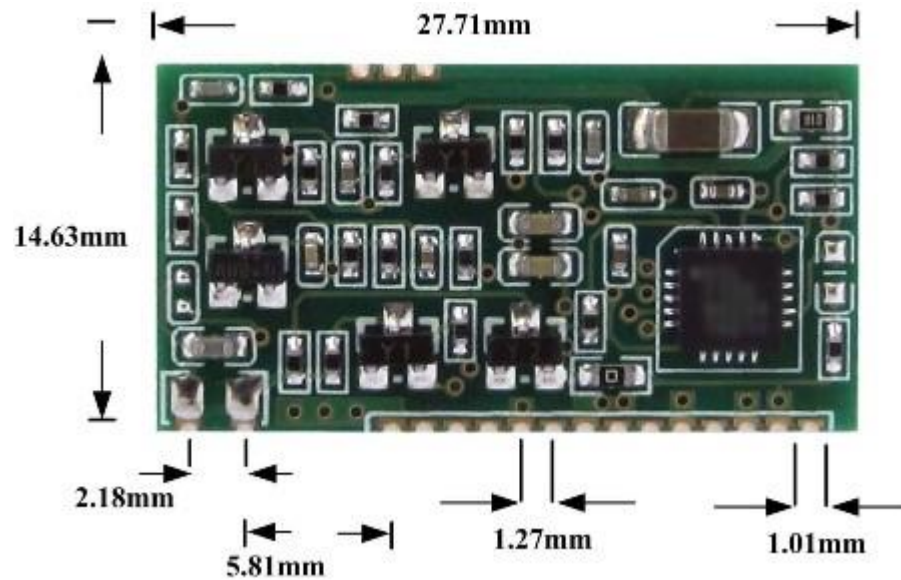


This module not support HDX Tag



product is compatible with ISO 11784/11785 protocol, readable animal standard label;

reading distance: 5-16cm (the module not include antenna)

communication interface: UART;

Ultra-low power consumption, UART can send commands to make the module into low-power mode

Small size, easy to integrate into the device

Operating temperature $-20^{\circ} \sim +85^{\circ}$

Storage temperature $-40^{\circ} \sim +125^{\circ}$

Supply voltage (vcc to vss) $-0.3V \sim +4.2V$

Pin to ground voltage $-0.3V \sim +5.8V$.

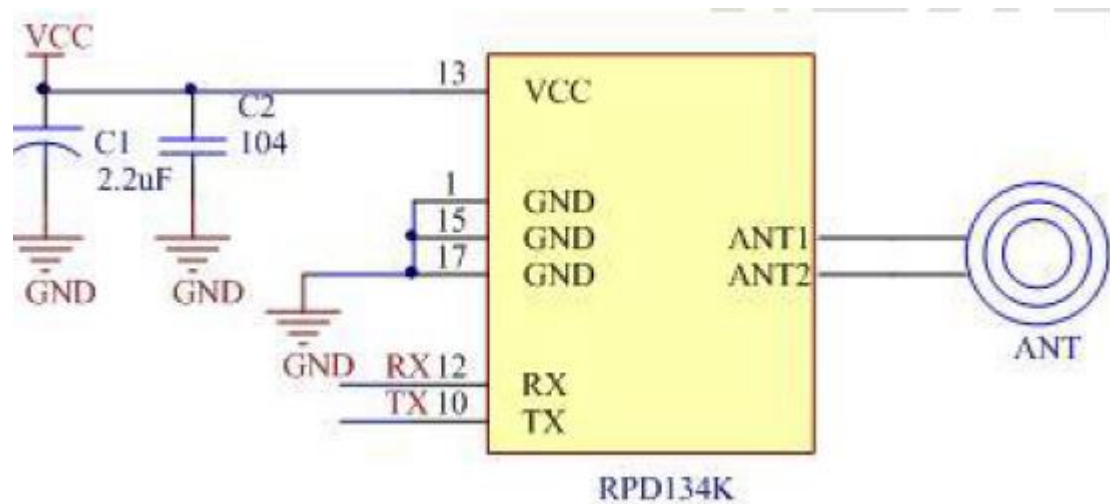
Maximum IOL per pin: $\pm 2mA$

Relative humidity: $5\% \sim 95\%$



A2	ANT2	Antenna pin2
1	GND	Power GND
2 ~ 9	NC	Reserved
10	TX	UART Data transmission pin
11	NC	Reserved
12	RX	UART Data receive pin
13	VCC	Device power input pin
14,16	NC	Reserved
15,17	GND	Power

Baud rate: 9600bps



UART communication protocol

Data format

UART data frame format: 1 start bit, 8 data bits, no parity, 1 stop bit.

Baud rate: 9600bps

Data Format: 8-byte data, low-order first, formatted such as 7 byte data + 1 byte checksum (XOR).

For example a card

Output data is 0x11 0x00 0x13 0x14 0x15 0x16 0x17 0x02,
the checksum calculation:

$0x11 \wedge 0x00 \wedge 0x13 \wedge 0x14 \wedge 0x15 \wedge 0x16 \wedge 0x17 = 0x02$).

The first two bytes for the country code (10 decimal not greater than 1023) low byte first (0x0011) = 017;

The last 5 bytes is the card number low byte first (0x1716151413) = 099154727955.

serial commands

0xAA: card reader command, the operation is successful return 7 byte card number and 1 byte checksum.

0xBB: Turn off the antenna command, the module enters low power mode and returns 0xB1 after successful operation.

Function Description: The module is default low-power mode when power-on, the antenna is turned off.

After receiving the 0xAA command, The module opens the antenna and turn on working state, after the card read succeeds, the module will automatically enter the low power consumption mode, if needs to read the card again

Send the 0xAA command again; if the card fails, the module will always be in the card reading mode until the card is read successfully or received 0xBB command.

About making antenna:

Prepare the enameled wire, Inductor meter.

Firt set the antenna size, Circle the antenna and record the loop number of the antenna. Use the inductance meter to test the inductance of the antenna until the inductance of the antenna is about 280UH.