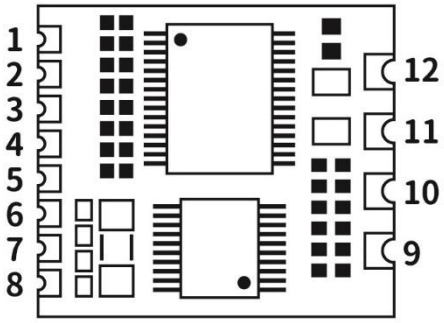
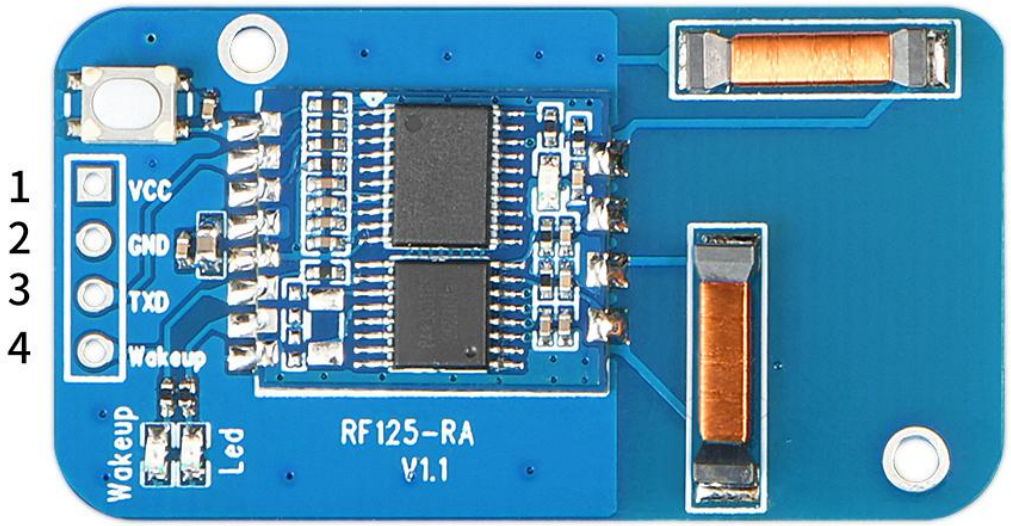
RF125 instructions

RF125-RX



Pin number	Pin definition	I/O	Description
1	PAIR	I	pairing button, pull low for more than 1 second to enter pairing mode, pull high for normal mode
2	TXD	O	Uart Data output
3	RXD	I	Reserved for factory use
4,8,10	GND		Power ground
5	VCC		Can be externally connected with a positive voltage of 2.5-3.6V
6	WAKE UP	O	output high pulse to wake up external device after received effective 125K signal,
7	LED	O	Connected with external LED to indicate the status
9	ANT3	I	External 125K patch antenna, the inductance is 7.2mH
11	ANT2	I	External 125K patch antenna, the inductance is 7.2mH
12	ANT1	I	External 125K patch antenna, the inductance is 7.2mH

RF125-RA



Pin number	Pin definition	I/O	Description
1	VCC		Can be externally connected with a positive voltage of 2.5-3.6V
2	GND		Power ground
3	TXD	O	Data output port
4	WAKE UP	O	After receiving 125K signal, output high pulse

Wiring problem

1. TXD is the output pin of the data packet, which is connected to the RXD of the external device. The UART format is 9600,8,N,1.

2. WAKE UP is the external wake-up pin of RF125-RX. When a data packet is received, a high pulse lasting 50ms is generated, which is used to wake up the external device.

3. RF125-RX has ANT1, ANT2, ANT3 3 antenna pads, customers can connect the antenna according to their own needs. (For RF125-RA, there is antennas on board, no need to connect with antennas more).

Instructions

Power on and wait for data to be received.

RF125-TX

Pin definition	I/O	Voltage	Description
VCC		12-30v	Can be connected to the positive pole of 12-30V power supply
GND		0	Connect the negative pole of the power supply
TXD	O	0-3.3v	Serial output port
RXD	I	0-3.3v	Serial input port

Wiring problem

1. TXD is connected to the RXD of the external device. RXD is connected to the TXD of the external device, and the UART format is 9600, 8, N, 1.

Instructions

After power-on, Set the corresponding parameters before transmission.All the command is ended with 0x0d 0x0a.

Configuration instructions

(1) Set the payload to be transmitted

CMD (1Byte)	Length(1Byte)	Payload(Length Byte)	End code
0x57			0x0d 0x0a

CMD: 1 byte, 0x57

Length: 1 byte, the length of the data packet, not including the command word, this byte and end code. The range is 0~0x2D (a packet can transmit up to 45 (0x2D) bytes)

Payload: data content

Example:

0x57 0x05 0x01 0x02 0x03 0x04 0x05 0x0D 0x0A

Return ： 0x4F 0x4B 0x0D 0x0A

CMD ： 0x57

Length ： 0x05

Payload ： 0x01 0x02 0x03 0x04 0x05

(2) Modify the ID of the transmitter:

Noted: ID greater than 0x7F is regarded as an error

CMD (1Byte)	ID(7Bit)	End code
0x58		0x0d 0x0a

CMD: 1 byte, 0x58

ID: 7 Bits, the range is 0~0x7F, greater than 0x7F is regarded as an error

example:

Set the ID of the transmitter to 0x01

0x58 0x01 0x0D 0x0A

Return: 0x4F 0x4B 0x0D 0x0A

(3) Read out the ID of the transmitter

CMD（1Byte）	End code
0x52	0x0d 0x0a

Example: The ID of the transmitter is 0x01
0x52 0x0D 0x0A
Return:0x01 0x0D 0x0A

(4)Set the time interval (ms) between adjacent transmission. The time interval should be (250ms – 60 000 ms), it will be set as 250ms automatically if it is less than 250ms.

CMD(1Byte)	TIME_H(1Byte)	TIME_L(1Byte)	End code
0x53			0x0d 0x0a

CMD：0x53

TIME_H: The upper 8 bits of the time

TIME_L: the lower 8 bits of the time

Range: 0x00FA~0xEA60, that is, 250ms ~60 seconds.

example:

Set the interval of 1000ms, and the conversion of 1000 into hexadecimal is 0x03e8

The command is: 0x53 0x03 0xe8 0x0D 0x0A

Return: 0x4F 0x4B 0x0D 0x0A

(5)Set the transmitting state of the transmitter

1>**start** transmission

CMD(5Byte)	End code
0x73 0x74 0x61 0x72 0x74	0x0d 0x0a

The command is: 0x73 0x74 0x61 0x72 0x74 0x0D 0x0A

Return: 0x4F 0x4B 0x0D 0x0A

After the command is successfully transmitted, RF125-TX will automatically and continuously transmit data packets according to the set time interval (0x53 command).

2>**stop transmission**

CMD(4Byte)	End code
0x73 0x74 0x6F 0x70	0x0d 0x0a

The command is: 0x73 0x74 0x6F 0x70 0x0D 0x0A

Return: 0x4F 0x4B 0x0D 0x0A

After the command is successfully transmitted, RF125-TX will automatically stop transmitting.