

USR-C210 Hardware Manual

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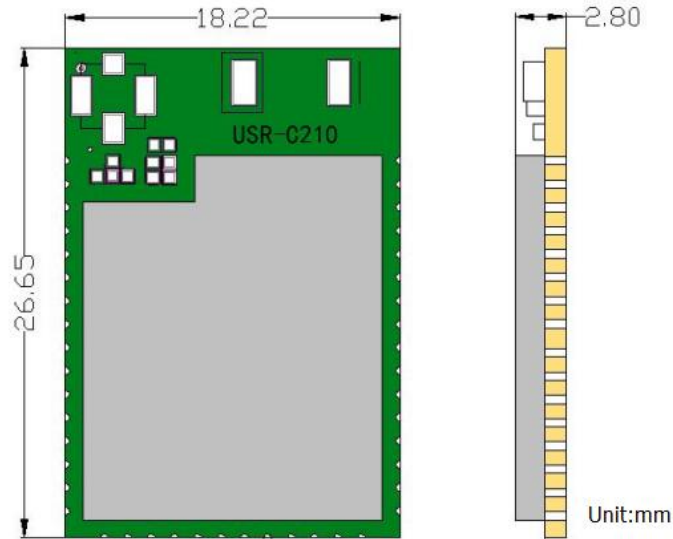
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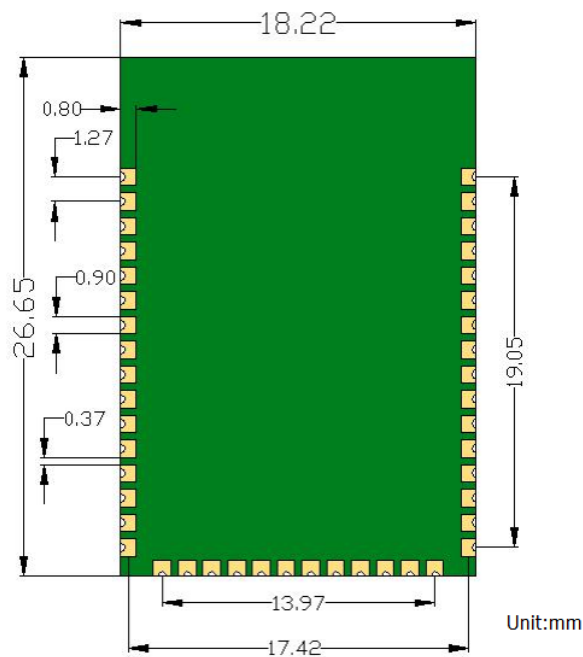
1. Product Overview

1.1. Dimension

Module size: 18.22*26.65*2.80mm, error ± 0.2 mm, pin size as follows:

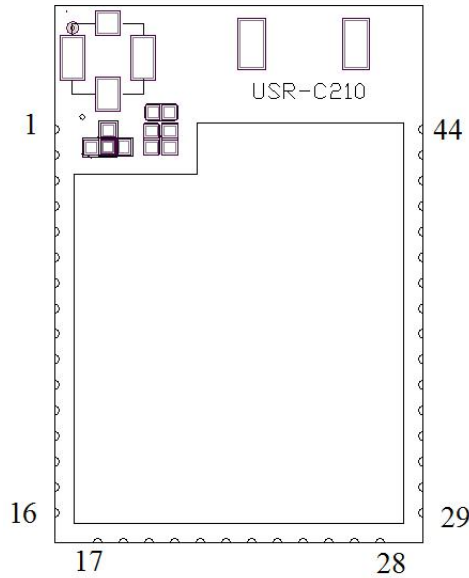


1.2. Encapsulation Size



You can download PCB library from <http://www.usriot.com/pcb-library-usr-c210-pcb-library-v1-0/>

1.3. Pin Defination

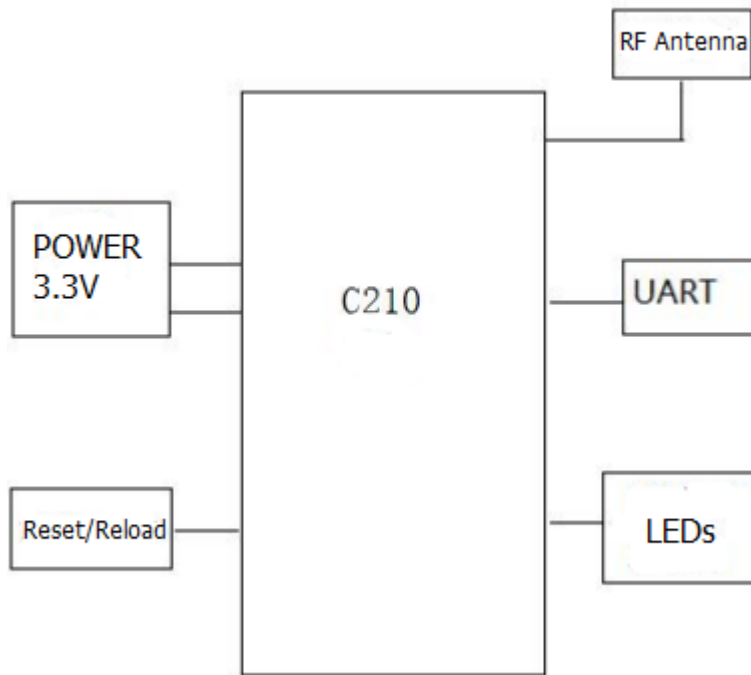


PIN	Name	Signal Type	Defination
1	GND	P	Power Ground
2	RF	O	Radio-frequency output
3	GND	P	Power Ground
4	nReset	I	Reset module, take effect in low level
5	NC	N	Not Available
6	NC	N	Not Available
7	NC	N	Not Available
8	GND	N	Not Available
9	NFC_IN	N	Not Available
10	NFC_IP	N	Not Available
11	GND	P	Power Ground
12	GND	P	Power Ground
13	VCC	P	VCC,3.3V
14	VCC	P	VCC,3.3V
15	NC	N	Not Available
16	NC	N	Not Available
17	GND	P	Power Ground
18	GPIO	I/O	I/O Pin
19	UART_TX	O	UART TX Pin
20	UART_RX	I	UART RX Pin
21	nReload	I	Take effect in low level.Keep low level 1-3s to start simplelink mode,over 3s to restore factory settings
22	nReady	O	Indicator pin of module working normally,take effect in

			low level.Can connect to external LED
23	nLink	O	Indicator pin of WIFI connection,take effect in low level.Can connect to external LED
24	UART0_CTS	I	UART CTS signal pin
25	UART0_RTS	O	UART RTS signal pin
26	NC	N	Not Available
27	NC	N	Not Available
28	GND	P	Power Ground
29	GND	P	Power Ground
30	UART_LOG_TX	O	LOG debugging UART_TX pin
31	UART_LOG_RX	I	LOG debugging UART_RX pin
32	NC	N	Not Available now
33	SPI_IRQ	I/O	SPI requesting pin,Not Available now
34	SPI_CLK	I/O	SPI clock pin,Not Available now
35	SPI_MISO	I/O	SPI MISO pin,Not Available now
36	SPI_MOSI	I/O	SPI MOSI pin,Not Available now
37	SPI_CS	I/O	SPI chip Selection pin,Not Available now
38	NC	N	Not Available
39	JTAG_TDI	I	JTAG pin
40	JTAG_TDO	O	JTAG pin
41	JTAG_TRST	I	JTAG pin
42	JTAG_CLK	I	JTAG pin
43	JTAG_TMS	I	JTAG pin
44	GND	P	Power Ground

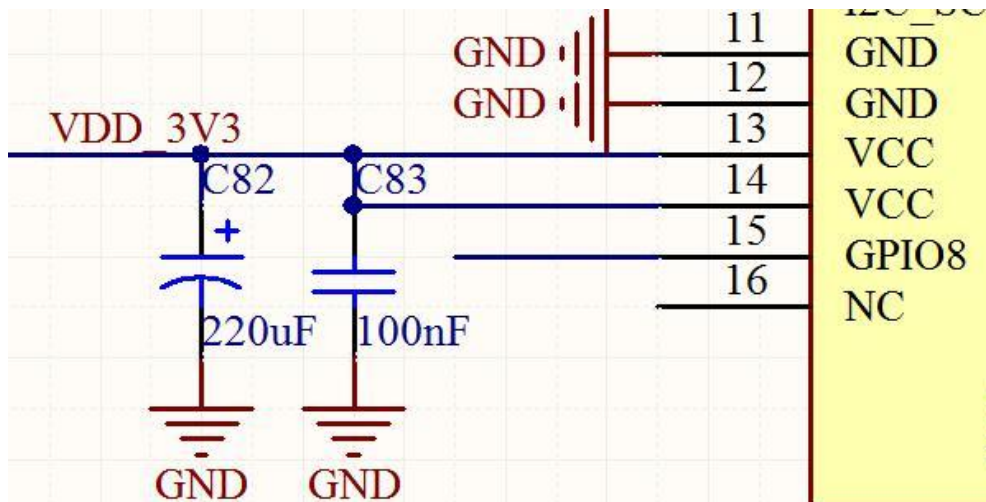
2. Hardware Design

2.1. Typical Connection



2.2. Power Interface

Recommend switching power supply. Working voltage VCC range from 3.0V~3.6V, 3.3V is recommended. Power the module by main power pin, pin interface is in parallel with appropriate energy-storage capacitance and high frequency capacitance. Circuit diagram as follows:

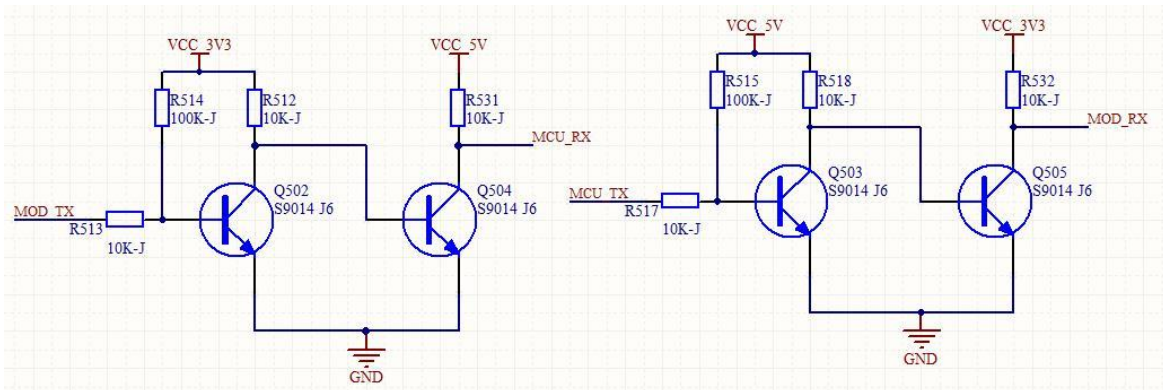


2.3. UART Interface

When communicate to MCU with 3.3V, just connecting TXD of module to RXD of MCU and RXD of module to TXD of MCU.

When communicate to MCU with 5V, switching circuit is necessary.

Switching circuit diagram as follows:

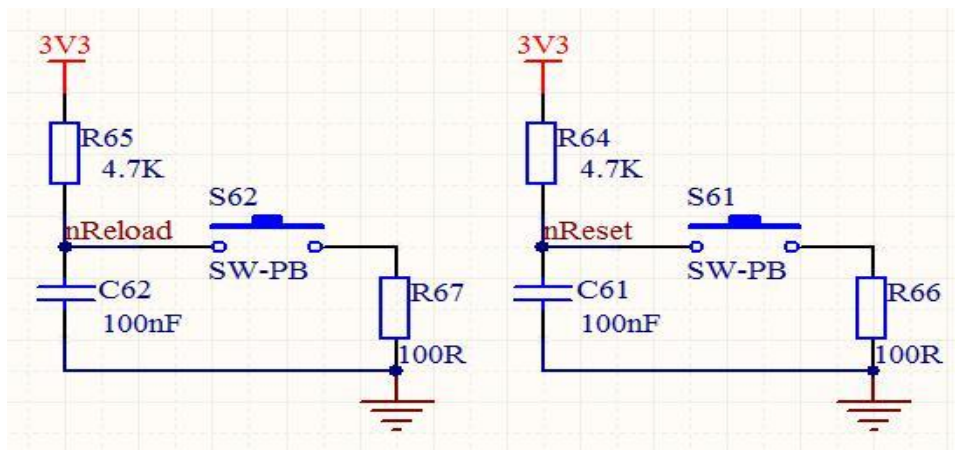


2.4. Reset and Reload

nReload: nReload pin can connect to external button or configuration pin. Press button 1s to 3s to enter simplelink mode, press over 3s to restore factory settings. nReload pin should connect to external 4.7k-10k Ohm pull-up resistor.

nReset: Resetting the module and taking effect in low level. nReset pin connect to internal 100K Ohm pull-up resistor to 3.3V. Press over 0.5s and release to reset the device.

Circuit diagram as follows:



2.5. Antenna

Diagram as follows:



0 Ohm resistor can weld 1,2,3 pin and represent three type antenna:internal antenna,external antenna,I-PEX jack antenna.

- Note:
- 1.On PCB board, user can't place component on antenna pin.
 - 2.Keep antenna away from metal, inductance or some other interference source.
 - 3.Ensure antenna location on margin of PCB board.

3. Contact

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4. Disclaimer

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5. Update History

2017-07-07 V1.0.0 created.