

# USR-C215 Hardware Manual

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# 1. Product Overview

## 1.1. Dimension

Module size: 22.0\*13.5mmmm, error  $\pm 0.2$ mm, pin size as follows:

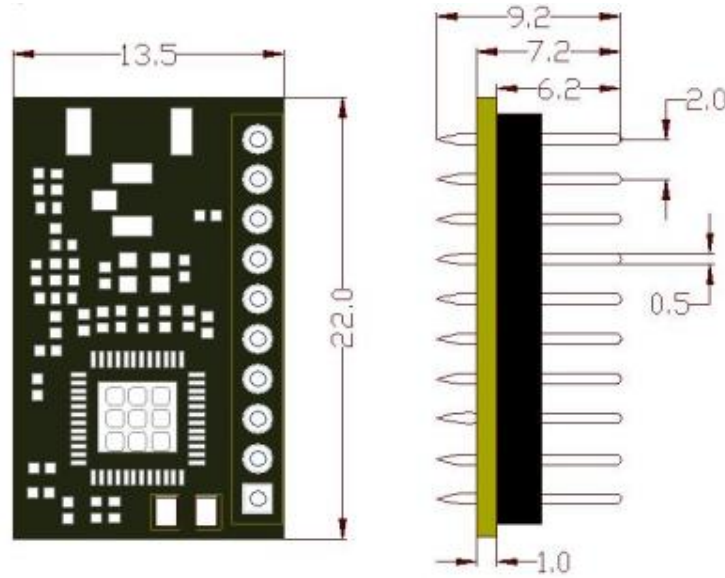
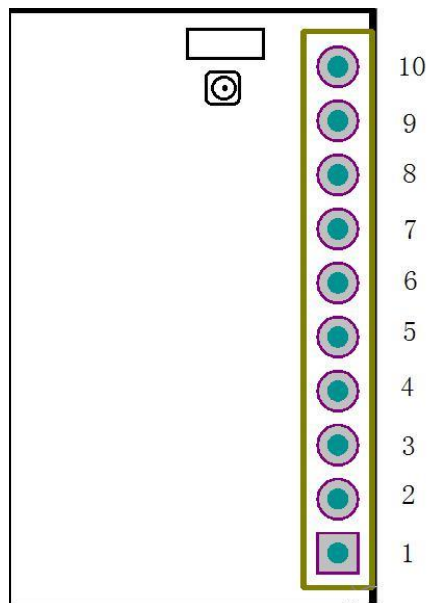


Figure 1 Dimension

## 1.2. Pin Definition



PIN	Name	Signal Type	Definition
1	GND	P	Power Ground
2	VDD	P	3.3V
3	RELOAD	I	Press 1-3 seconds to start simplelink, over 3 seconds to restore default settings
4	RESET	I	Reset the module, take effect in low level
5	UART_RX	I	Serial port receiving pin
6	UART_TX	O	Serial port sending pin
7	PWR_SW	N	Not available
8	WPS	N	Not available
9	READY	O	Indication pin for module working normally, take effect in low level and can connect to external LED
10	nLINK	O	Indication pin for module WIFI linking successfully, take effect in low level and can connect to external LED

**Figure 2 Pin definition**

## 2. Hardware Design

### 2.1. Typical Connection

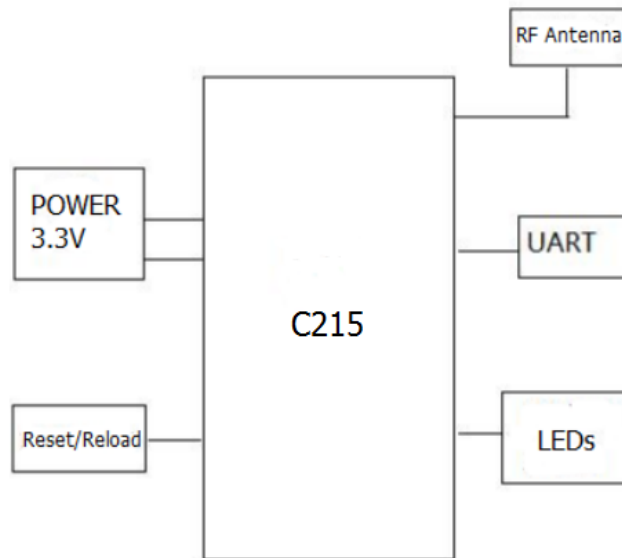


Figure 3 Typical connection

### 2.2. Power Interface

Switching power supply is recommended. 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:

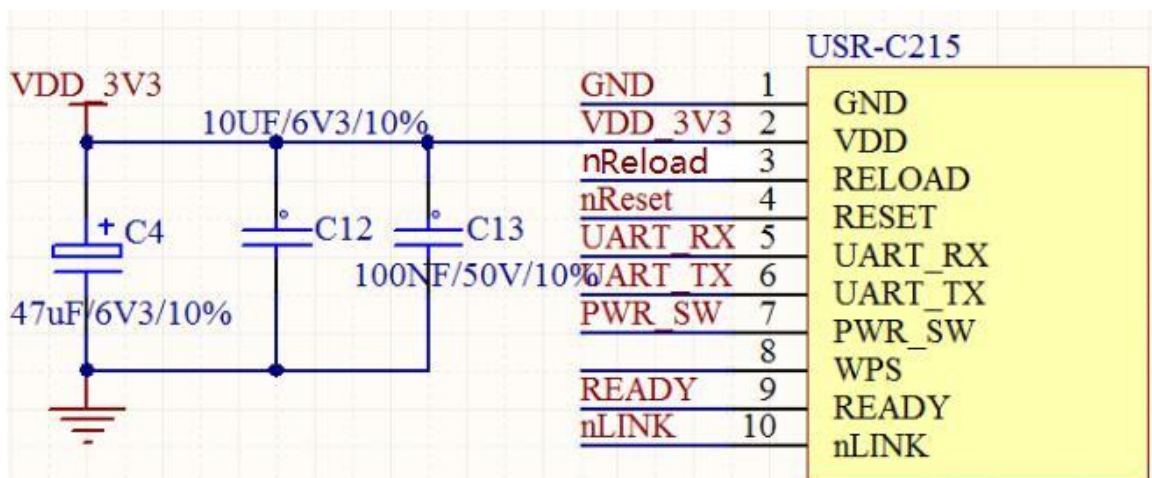


Figure 4 Power interface

## 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:

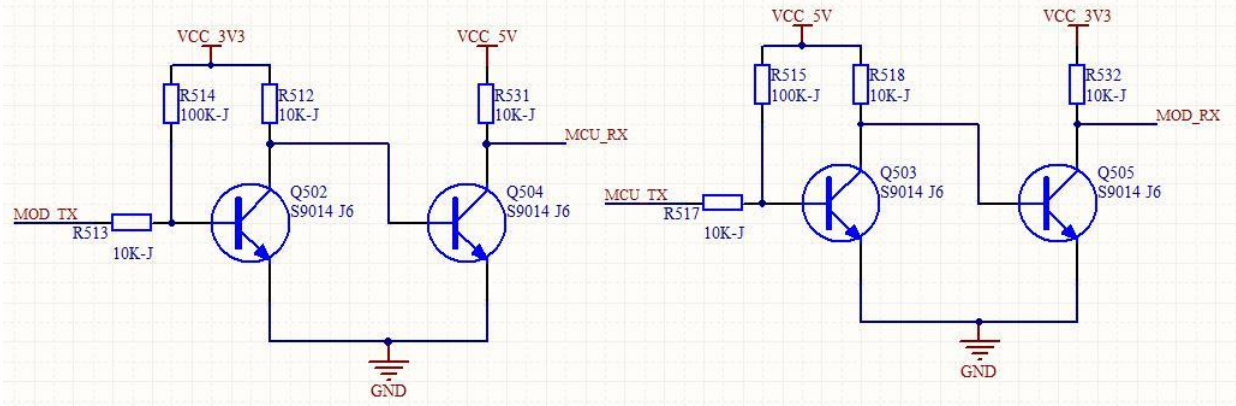


Figure 5 UART interface

## 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 default 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:

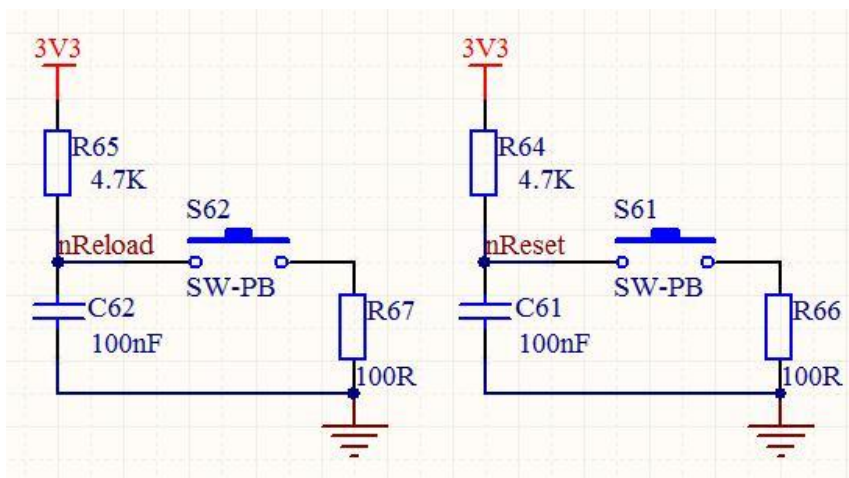


Figure 6 Reset and Reload

## 2.5. Antenna

USR-C215 have external I-PEX antenna.

Note:

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

## 3. Contact

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## 4. Disclaimer

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## 5. Update History

2017-09-20 V1.1.01 created.