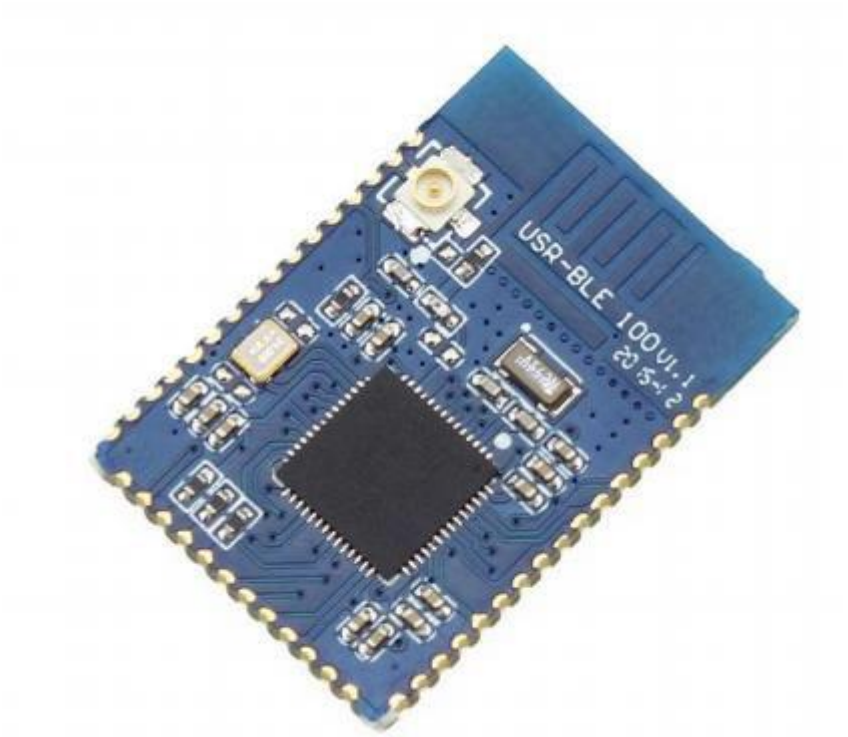
USR-BLE100 Hardware Manual

File version: 1.0.0

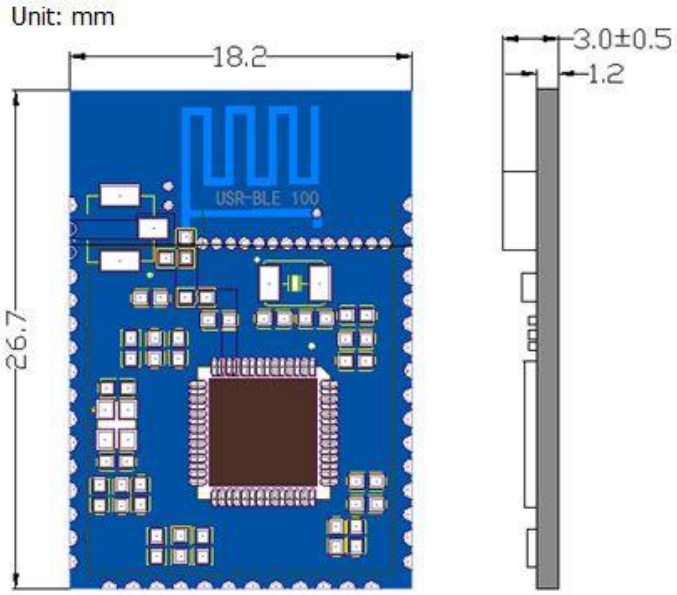


Content

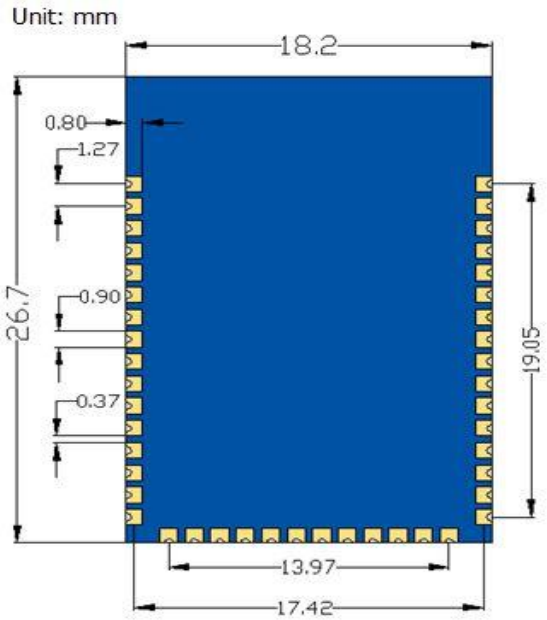
1. Product Overview

1.1. Dimension

Module size: 18.2*26.7*2.8mm, error ±0.2mm, pin size as follows:

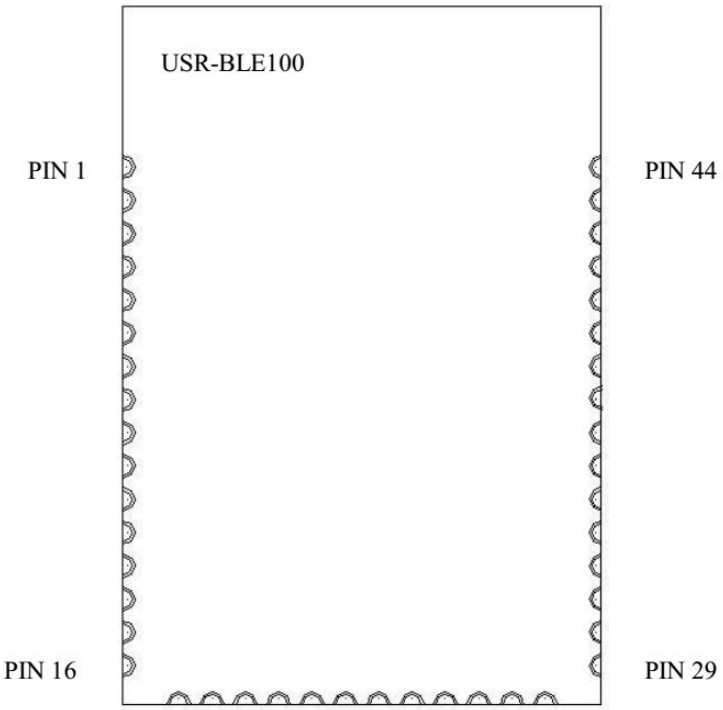


1.2. Encapsulation Size



You can download PCB library from http://www.usriot.com/usr-ble100-library-file/.

1.3. Pin Defination

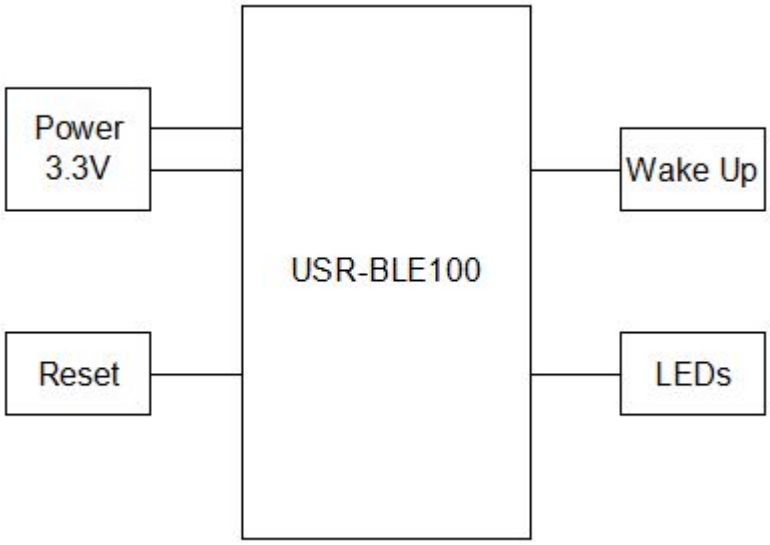


PIN	Name	Signal Type	Defination
1	GND	P	Power Ground
2	RF	O	RF signal output
3	NC	N	Not available
4	nReset	I	Reset, take affect in “0”
5	GPIO1	I/O	GPIO1 pin
6	GPIO2	I/O	GPIO2 pin
7	GPIO3	I/O	GPIO3 pin
8	NC	N	Not available
9	12C_SDA	I/O	I2C Data Pin
10	12C_SCL	I/O	I2C Clock Pin
11	GND	P	Power Ground
12	GND	P	Power Ground
13	VCC	P	Power VCC, positive, range from 1.9v~5.5v
14	VCC	P	Power VCC, positive, range from 1.9v~5.5v
15	GPIO8	I/O	GPIO8
16	NC	N	Not available
17	GND	P	Power Ground
18	PWM1	O	PWM Output Pin 1

19	UART0_TX	O	UART0 transmit pin
20	UART0_RX	I	UART0 receive pin
21	nReload	I	Press 1s to restore default settings Press over 3s to restore factory settings
22	AD	I	AD collection pin
23	LED	O	LED pin
24	UART0_CTS	I	UART0 CTS signal
25	UART0_RTS	O	UART0 RTS signal
26	SWDATA	I/O	Data pin of module burning
27	SWCLK	I	Clock pin of module burning
28	GND	P	Power Ground
29	GND	P	Power Ground
30	UART_TX	O	UART transmit pin(Not available)
31	UART_RX	I	UART receive pin(Not available)
32	PWM2	O	PWM output pin 2
33	SPI_SS1	O	SPI send request pin
34	SPI_CLK	I/O	SPI clock pin
35	SPI_MISO	I/O	SPI MISO function pin
36	SPI_MOSI	I/O	SPI MOSI function pin
37	SPI_SS0	I/O	SPI chip selection function pin
38	Wake_Up	I	Wake up pin
39	UART1_CTS	I	UART1 CTS signal
40	USRT1_RTS	O	UART1 RTS signal
41	NC	N	Not available
42	NC	N	Not available
43	NC	N	Not available
44	GND	P	Power Ground

2. Hardware Design

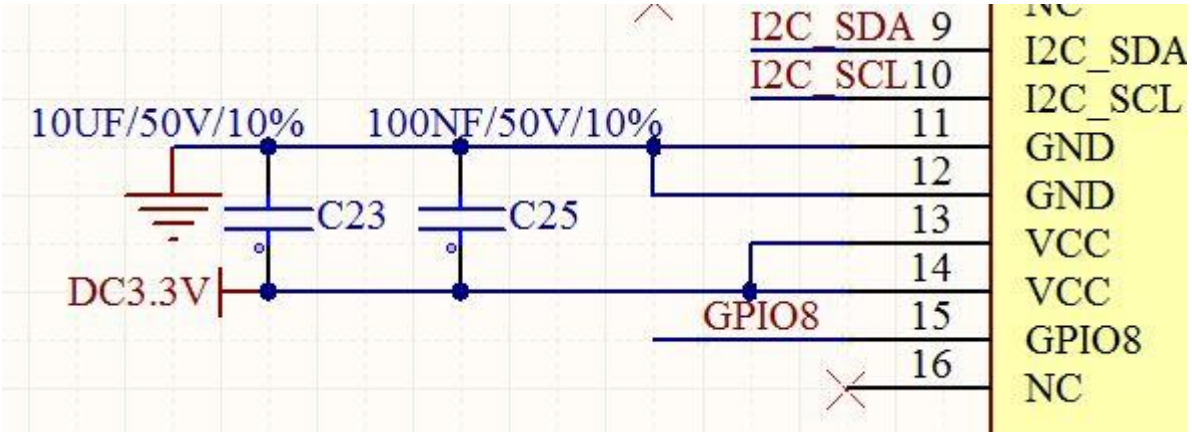
2.1. Typical Connection



2.2. Power Interface

Working voltage VCC range from 1.9V~5.5V, 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:



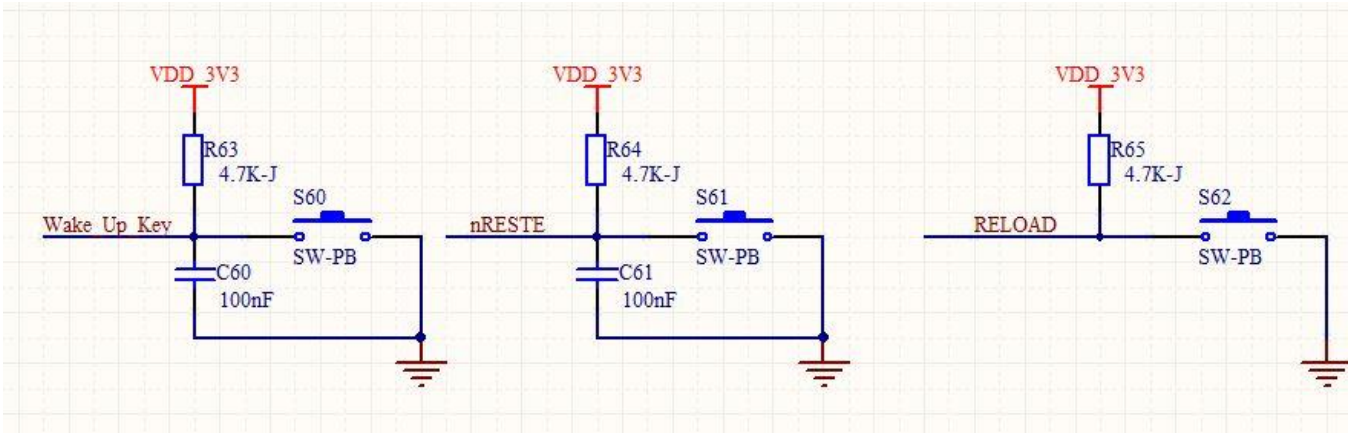
2.3. Reset, Reload and Wake up

nReload:nReload pin can connect to outer button . When press the button, pull down pin to low level, release after 3s, module will restore factory defaults and restart.

nReset: Module reset pin, take affect when low level. There is 10K resistor pull up to 3.3V in module. When module power on or break down, MCU will reset the module, pull down nReset pin as least 0.5s, then release.

Wake_Up Key: Can connect to outer button or setup pin. When press the button to pull down pin to low level,and release after 3s, module will wake up to normal work mode.

Circuit diagram as follows:



3. Contact

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5. Update History

2017-6-28 V1.0.0 created.