

Wireless expansion module is mainly composed by the following : Microprocessor, Power, RS485 Transceiver Circuit, RF wireless transceiver circuit, Crystal. And the EUT is a 1 RF transmitter device. The EUT is power supply by the central control post, and RS485 port is link with central control post. It work by storage battery when it test by us

#### 1. Power

the input range of External power supply voltage is DC6V-24V, Power circuit is mainly composed by Step-Down Switching Circuit. operating frequency of Switching power supply is 220KHZ, External voltage after Switching regulator circuit Output voltage DC3.3V.

#### 2. RS485 Circuit

RS485 circuit responsible for make wired communications with Remote master, RXD and TXD are separately connected Sending and receiving end of the CPU serial ports.

And RS485 port is only used for debugging

#### 3. RF chip use 24L01, Cpu and 24L01 to communicate by SPI, SPI communication

Frequency is 2M, 24L01 carrier frequency is 2.4G, there are 80 communication frequencies.

Frequency circuits of Radio wireless expansion modules usually stay in a receiving state to receive the data sent from the lock, If the center has data to send to the door Lock, Data are transmitted through the RS485 bus to the wireless expansion module, the wireless expansion module send out the data by wireless.

#### 4. The microprocessor is the core of the wireless expansion module, use 8-bit microprocessor, Microprocessor Control Periphery Circuit, and 32.768K vice system clock provides More than 100ms delay system clock.

The role of the microprocessor is send out the data received by Cable 485 by wireless, and the data received by wireless is sent out to Center by Cable 485.