WK1230 Kit

OEM

Installation

Manual

V1.1

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- 1 -

Version	Author	Date	Description
V1.0	Zhufu.Lin	2015.05	Initial release
V1.1	Jeans	2015.6	Add external antenna description

The module is limited to OEM installation ONLY.

The OEM integrator is responsible for ensuring that the end-user has no manual instruction to remove or install module.

The module is limited to installation in mobile application;

A separate approval is required for all other operating configurations, including portable configurations with respect to Part 2.1093 and difference antenna configurations.

There is requirement that the grantee provide guidance to the host manufacturer for compliance with Part 15B requirements.

WK1230 OEM Installation Manual

Please notice that if the FCC identification number is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. This exterior label can use wording such as the following: "Contains FCC ID: 2ADPDWK1230" any similar wording that expresses the same meaning may be used.

FCC RF Exposure requirement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

WK1230 OEM Installation Manual

1. Overview

1.1. Introduction

The WK1230 kit demonstration is mainly making WK1230 connected to user router network and user can communicate with WK1230 through Wi-Fi to realize the app wukoon and wechat to control the state of LED.

1.2. WK1230 mode

The WK1230 supports 2 modes：Smartlink、Station.

Smartlink：The equipment goes into the mode when the module is not connected to the router. In this mode WK1230 is in the listening state of intelligent connection and the user can connect to the user of the router through wukoon app or wechat configuration device.
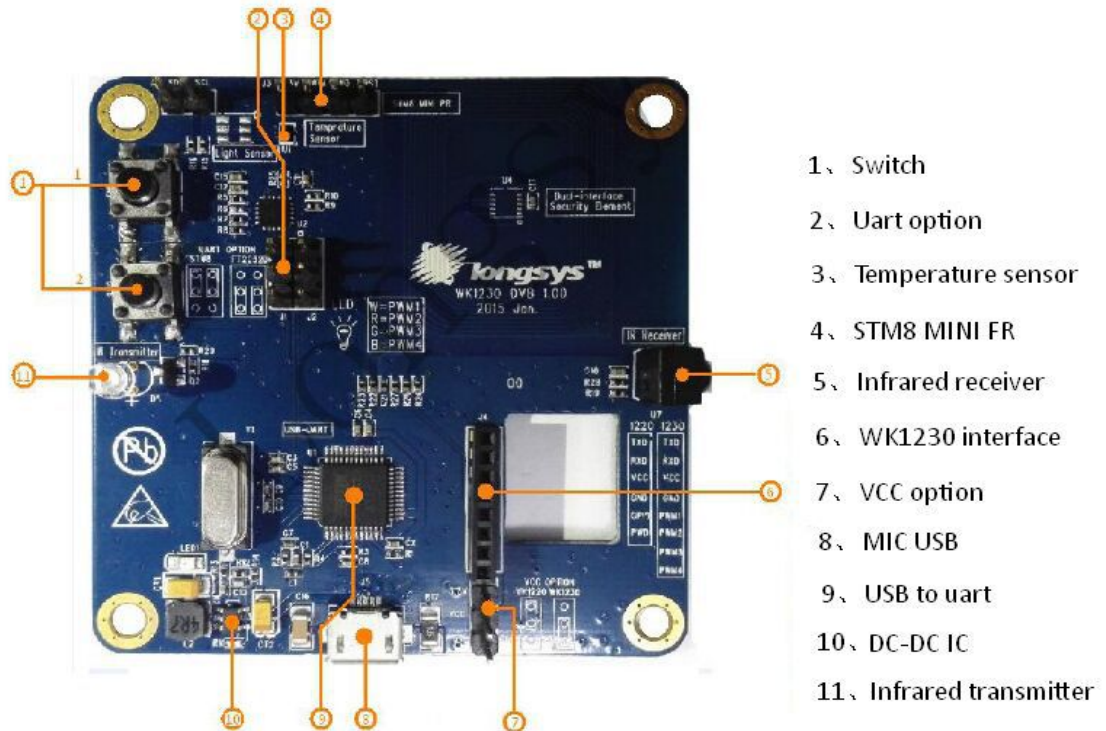
Station：The WK1230 module is connected with user on the router and users can use the wukoon App to control LED light state in the LAN. If WK1230 module supports wechat function and the module through the router connected to a wide area network, users can use wechat for remote control.

1.3. WK1230 working environment

WK1230 support 4G network but does not support 5g network , UDP network prohibited and the login account (such as CMCC) network.

2. Hardware

2.1. WK1230 DVB

1、 Switch
2、 Uart option
3、 Temperature sensor
4、 STM8 MINI FR
5、 Infrared receiver
6、 WK1230 interface
7、 VCC option
8、 MIC USB
9、 USB to uart
10、 DC-DC IC
11、 Infrared transmitter

3.
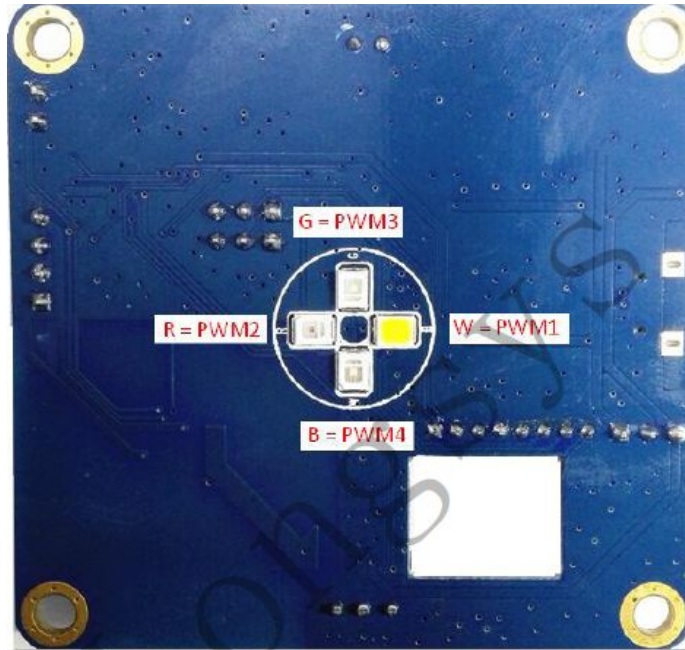
figure 1 WK1230 DVB Top

figure 2 WK1230 DVB Bottom

3.1. **WK1230**

1. WK1230 specifications
   Size: 17mm*26mm
   Working voltage: 5V+/-0.3V and 3V+/-0.15V
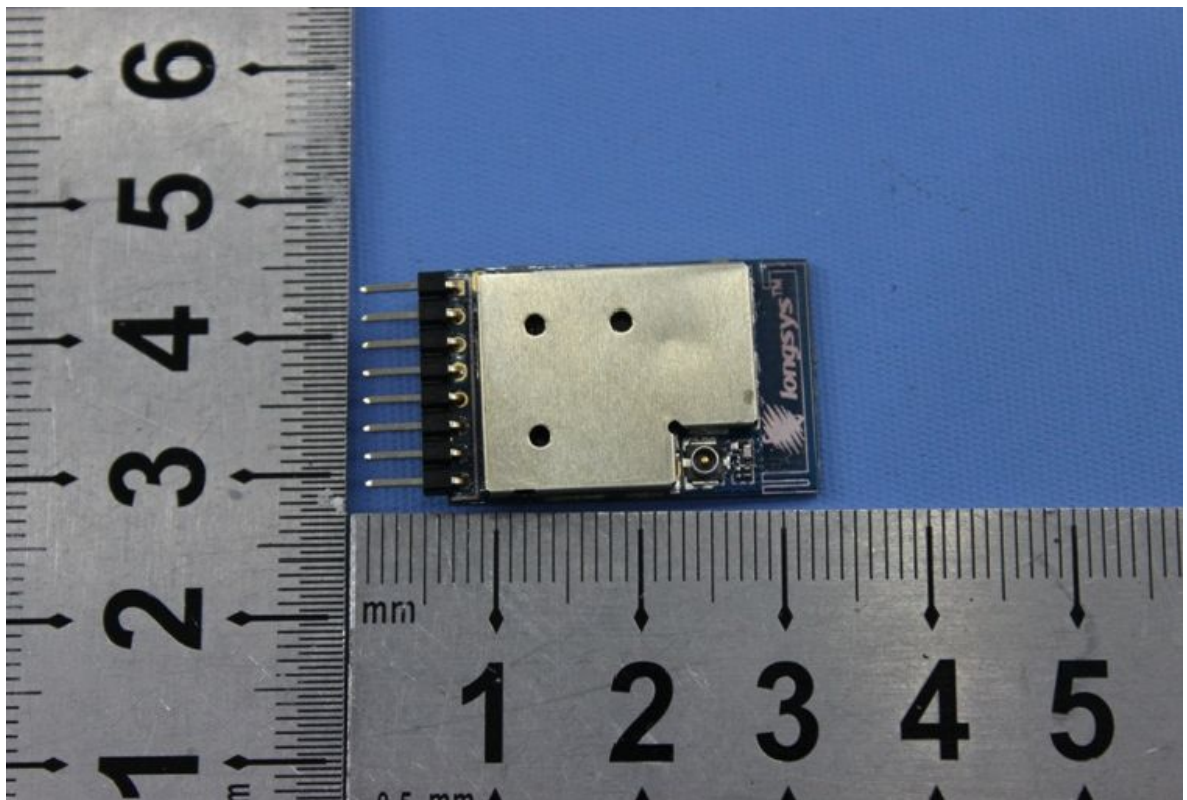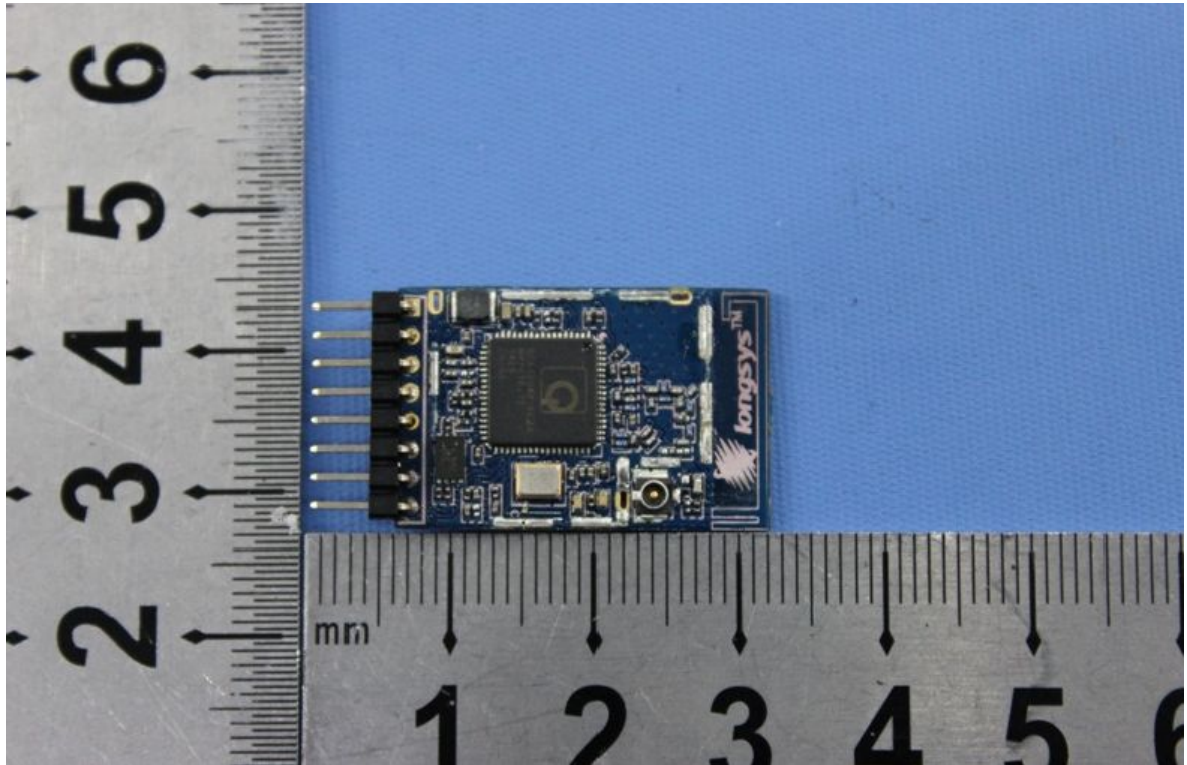   Antenna: board antenna and external pull antenna
   Interface: 8 pin

figure 3&4 WK1230

table 2.2.1 pin and description

PIN	Signal Name	Description			
1	TXD	UART TXD			
2	RXD	UART RXD			
3	VCC	Analog 5V supply			
4	GND	Ground			
5	PWM1	Dim	Dim	Dim Warm	White
6	PWM2		Mix	Dim Cold	Red
7	PWM3				Green
8	PWM4				Blue

3.2. WK1230 Kit connection

Through a jumper cap to choose the 5V as the WK1230 module power in DVB J4 slot (note the direction of the module and the bottom screen printing consistent to avoid module reverse connection), through the USB line to provide 5V power for DVB.As figure 4.3.1
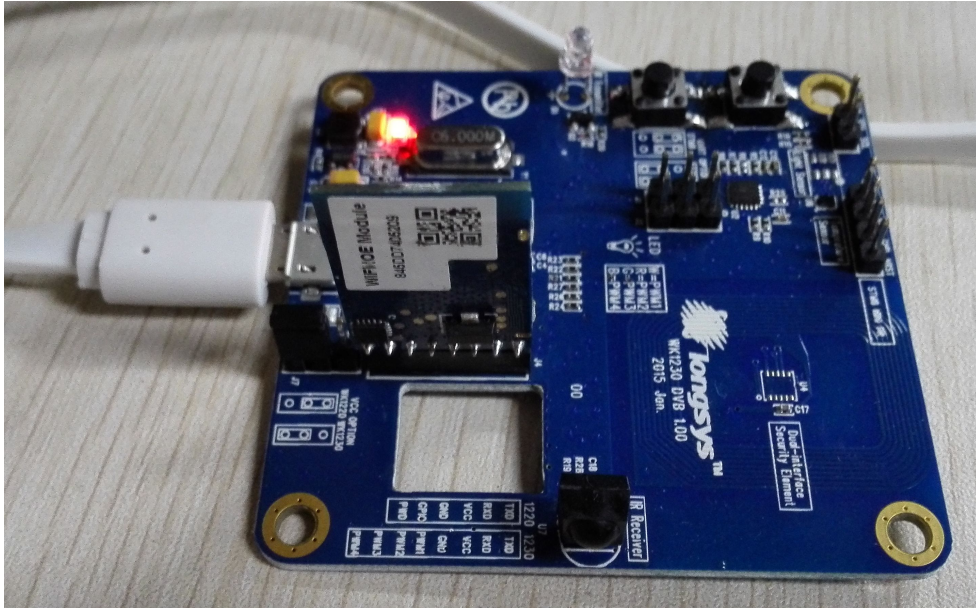
Shenzhen Longysys Electronics Co.,Ltd   www.Longsys.com
8/F, 1 Building. Finance Base, NO.8, KeFa Road, Shenzhen, China   Tel: 86-755-86168848
10/F, CHINA AEROSPACE CENTRE,143 HOI BUN ROAD,HK   Tel: 852-23850111

- 9 -

Figure 5 WK1230 Kit

4. Wukoon App Operation

4.1. Wukoon Apk System requirements and installation

1. Mobile phone Android system more than 4.0.

2. Download the latest APK and install to the phone. (www.wukoon.com/download)

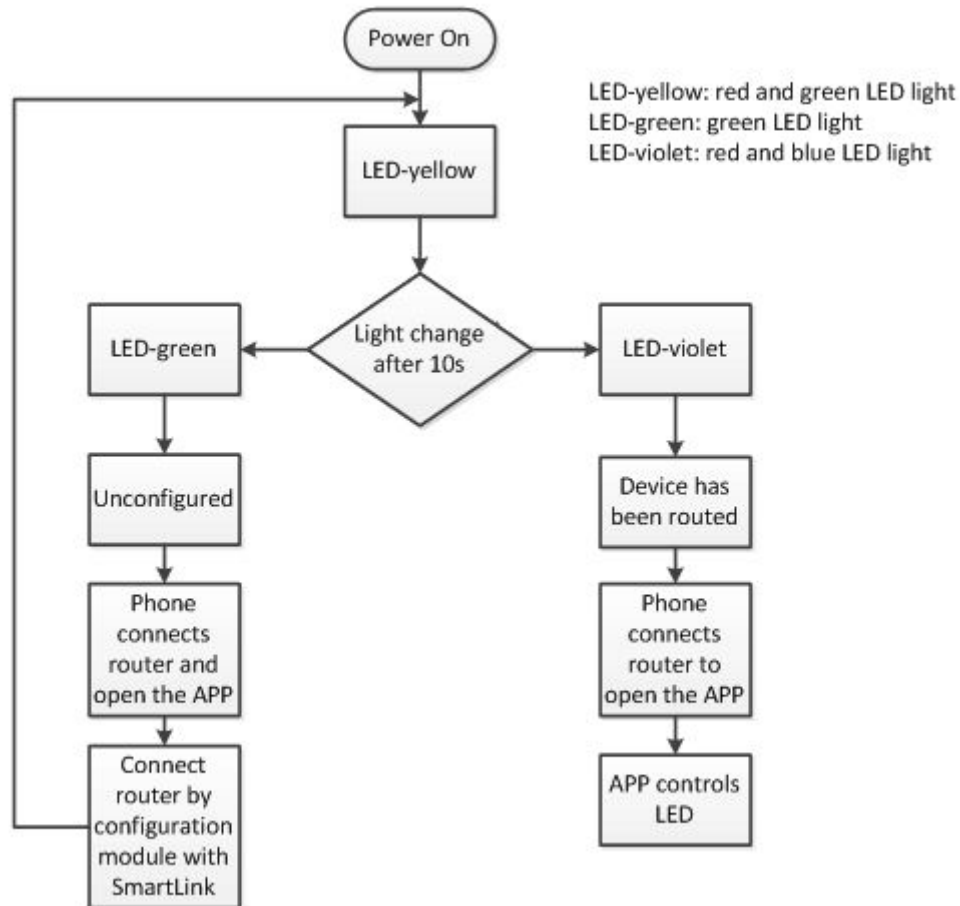## 4.2. Wukoon Apk configuration equipment

4.2.1. Color and mode switch

figure 6 WK1230 LED color and mode switch

1、If LED is yellow（red and green）:

Now is power mode, WK1230 is connected to the router and is not controllable. After 9s~20s the color switch to another mode;

2、If LED is green:

Now is Smartlink mode， App functionality can via mobile phone Smartlink or wechat configuration device features to configure the device to connect to the user router. If the mobile phone app configuration WK1230 Smartlink the device will restart after receive configuration data and LED bright yellow (red + green).

The router can be connected after 9s about.

3、If LED is violet (red and blue):

Now is Station mode and WK1230 has been connected to the router. In the same LAN, app can be refreshed through mobile phone to find the device and control the state of the device LED

4.2.2. App configuration

Open app into the main interface, as shown in Figure 3.2.1. The pop-up prompted the reminder dialog after 10s. such as figure 3.2.2.
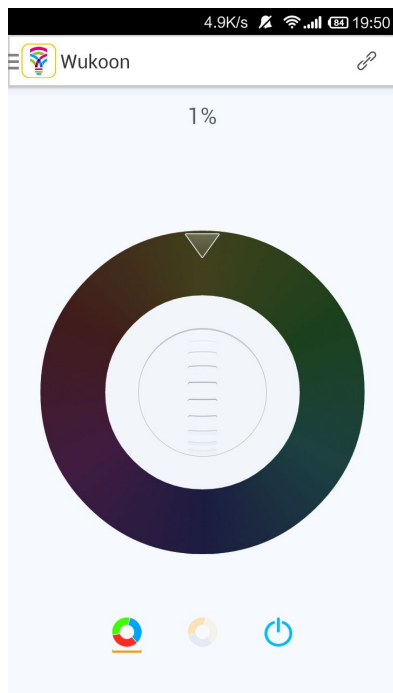

figure 3.2.1 app main interface   figure 3.2.2 reminder dialog

After clicking on the OK button, enter the configuration of the new device interface (1), as shown in Figure 3.2.3. The latter chose to cancel the button, through the menu select Configure new device into the configuration of the new device interface (1), such as figure 3.2.8. Click next to configure the new device interface (2), as shown in Figure 3.2.4.

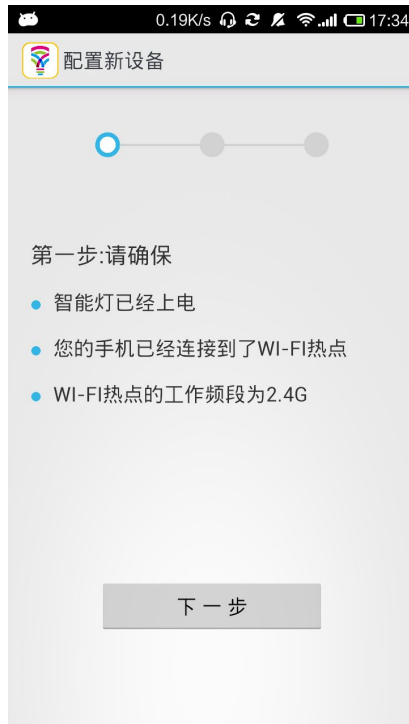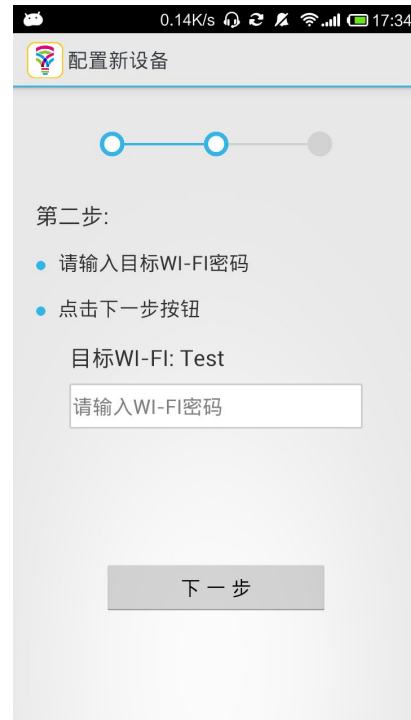figure 3.2.3 configuration（1）   figure 3.2.4 configuration（2）

After entering the WI-FI password (if no password, no input), you click next into the configuration of new devices (3), such as figure 3.2.5. After clicking the start button, you start configuring new devices, such as figure 3.2.6.

figure 3.2.5 configuration（3）   figure 3.2.6 configuration（4）

There are devices connected to the WI-FI hotspot successfully, showing how many devices currently have been configured to the router.

such as figure 3.2.7. Click the exit button, return to the main interface and configure the new device to complete.
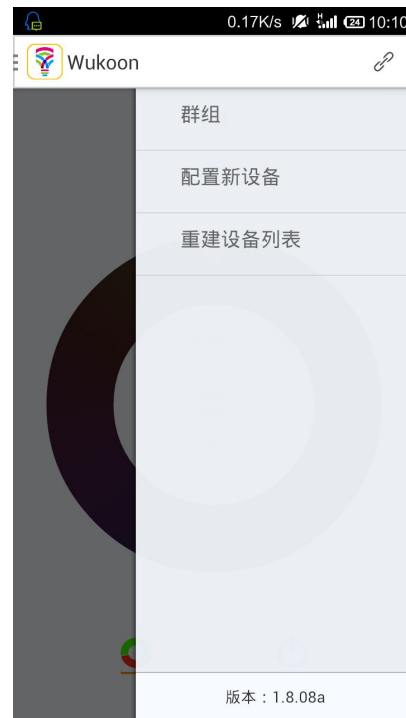

figure 3.2.7 configuration（5）

figure 3.2.8 menu

4.3. **Control equipment**

After the configuration of the new equipment and enter the main interface, you can control the device, such as figure 3.3.1.

4.3.1. Search and refresh device

Open APP and search for connected WI-FI hotspot equipment. Click the upper left corner of the icon to go into the left menu, such as figure 3.3.1. Click the left bottom to refresh button.
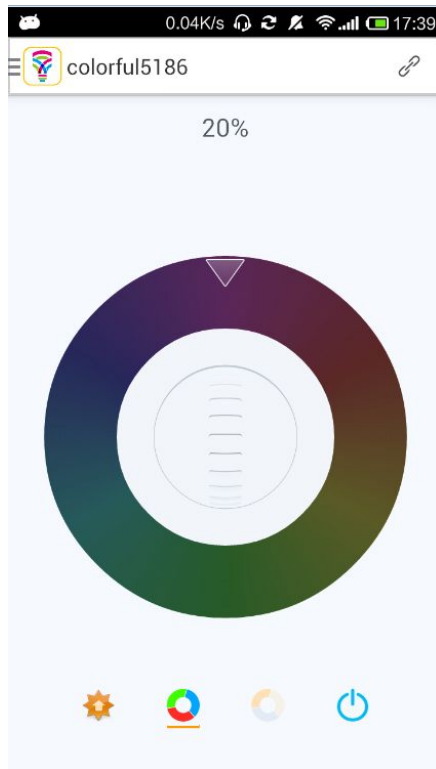
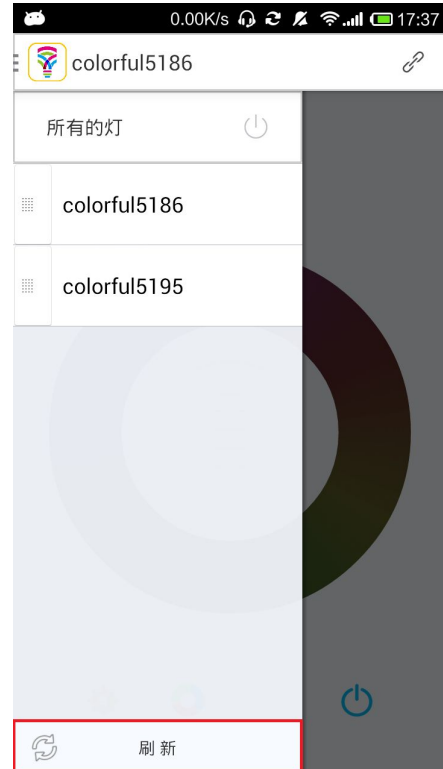figure 3.3.1 control equipment

figure 3.3.2 search equipment

4.3.2. Select equipment

Open the left menu and click on the device list item then select the appropriate device, as shown in Figure 3.3.3.
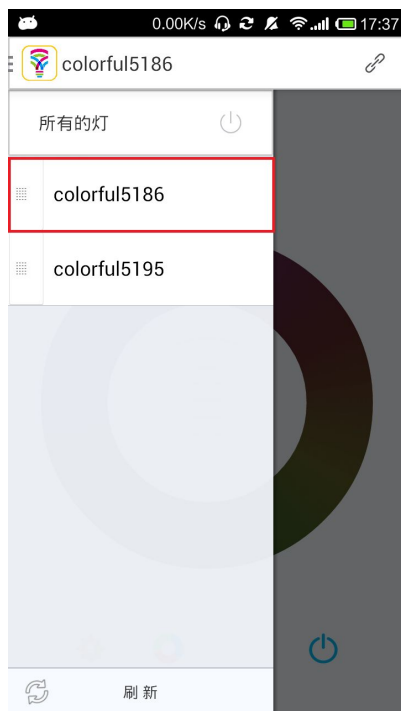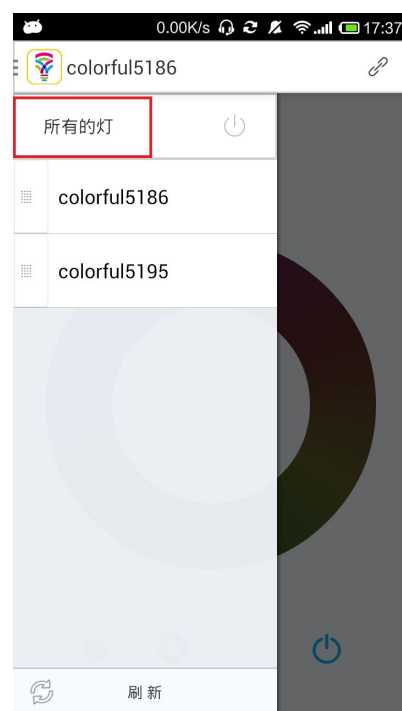

figure 3.3.3 select equipment

figure 3.3.4 control a group equipment

4.3.2.1. Control a group equipment

4.3.2.2. Control all equipment

Open the left list and click on all the lights then entering the main interface to the current list. as shown in figure 3.3.4.

4.3.2.3. Control a group equipment

First, open the right menu, click Group .

In figure 3.3.4, go into the packet interface, there is a default grouping "all lights" in the packet interface, which contains all the devices.

Second, click the Add button on the top right corner.

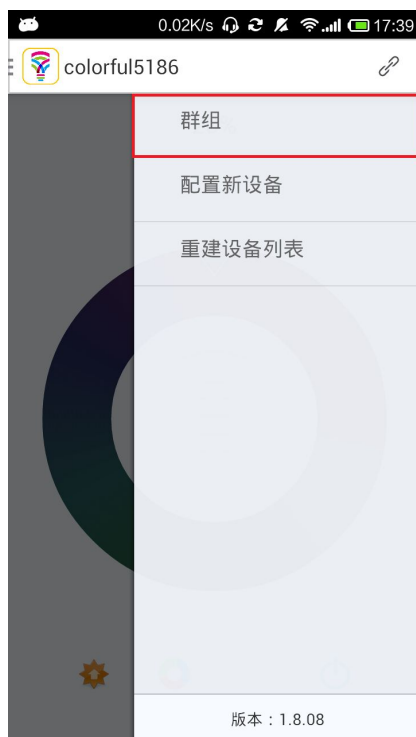Pop up "create a new group name dialog," as shown in Figure 3.5.3, after entering a new group name, in the group list.

figure 3.3.5 select group   figure3.3.6 create new group

Then, click the group name right button to enter the group edit page, as shown in figure 3.3.7.

Click the button ✚ to add the device to the group, if the button

✔ appears, it adds success.

Click the button to enter the default interface, as shown in figure 3.3.8. (If you don't want to do this, you can skip this step).
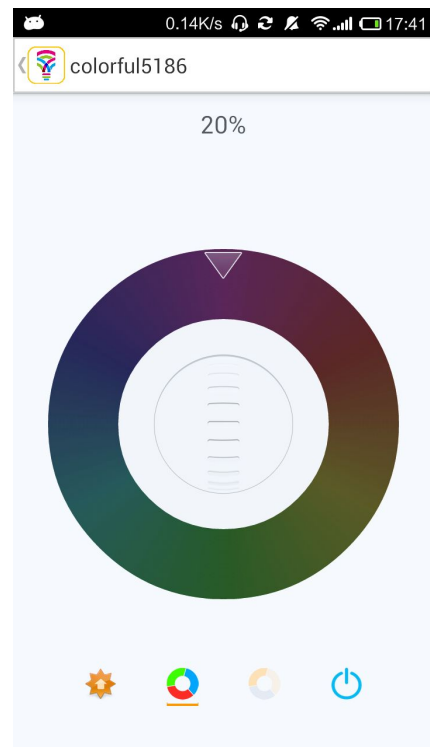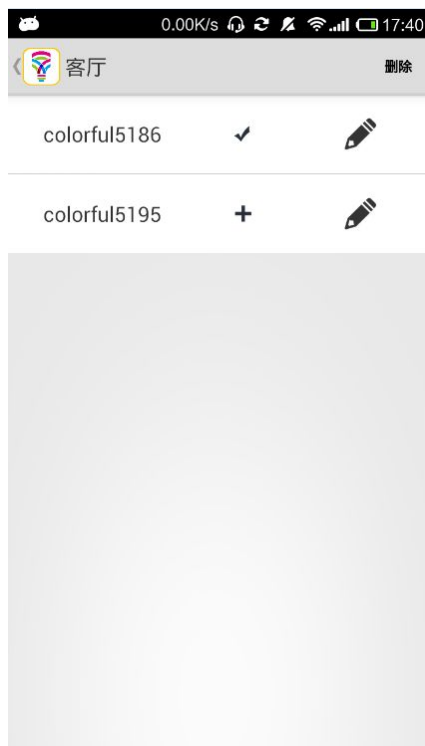

figure 3.3.7Packet editing interface figure 3.3.8 Default interface

After setting the preset value, point the return key to return the graph 3.3.7 grouping edit interface and the grouping interface, as shown in figure 3.3.9.
Click the group name and enter the main interface to control a group, such as figure 3.3.10.
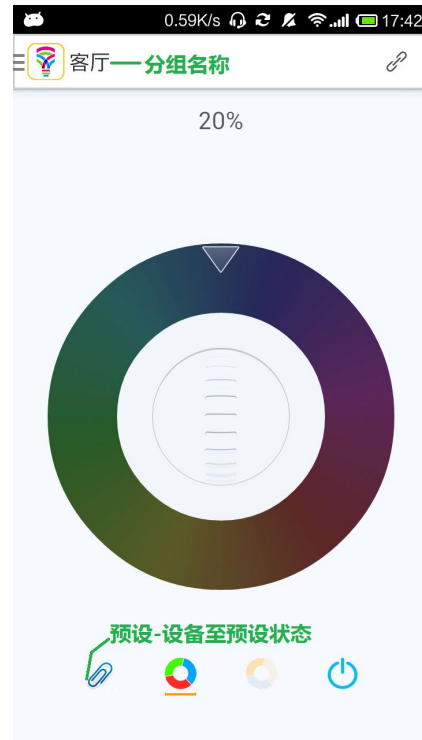
figure 3.3.9 group interface

figure 3.3.10 group control

4.4. **APP other functions**

4.4.1. APP upgrade

In the mobile phone network, starting APP, if the server has a new version, it will pop up software update dialog, such as figure 3.4.1. After clicking on the update, you can complete the software version update by boot operation.

figure 3.4.1 APP upgrade list

figure 3.4.2 reconstruction equipment

4.4.2. Reconstruction equipment

To open the right menu, click on the list of reconstruction devices, such as figure 3.4.2, left device list empty.

4.4.3. Equipment upgrade

Phone in the network, choose to upgrade equipment and click the update button from the main screen to enter the properties of the interface, as shown in Figure 3.4.3; below the button to display the "equipment can be upgraded to XXX" model of written characters to click, as shown in figure 3.4.4. Equipment upgrade, as shown in Figure 3.4.5. Equipment upgrade process, as shown in figure 3.4.6. Equipment upgrades successfully in Figure 3.4.7.
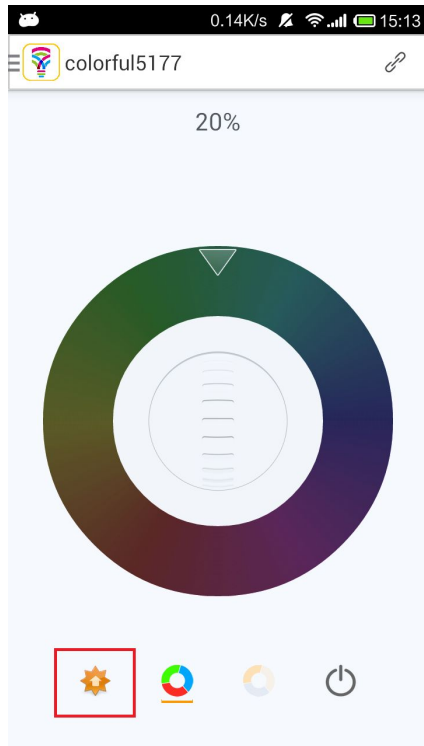
Figure 3.4.3 click the update button figure3.4.4 equipment upgrade XXX

figure 3.4.5 equipment connect figure3.4.6 equipment upgrading

figure 3.4.7 upgrade successfully

4.5. **Questions**

Question 1: Tips Box disappears, how to enter the configuration of the new device page?

A: Click APP right corner icon, open the right menu, as shown in figure 3.2.8. To configure the new device, enter the configuration of the new device page, as shown in Figure 3.2.3.

Question two: click the "warm tip" button or click the right menu "configure the new device", the emergence of a WI-FI hot spot, tips, how should do?

A: enter the phone configuration interface to connect to specify the WI-FI hotspot, according to the problem a solution to enter the configuration of the new device page.

Question three: click on the configuration of the new device, has been shown is connected equipment, please wait, what should I do?

A: please check the 3.2.1 of the document, check the mode and switch to the device. If the module is green, but App is still showing the tip, then check the router is supported UDP transmission.

Question four: app smart connection equipment, equipment color from the green becomes yellow turn back to green, how should do?

Answer: equipment from green into yellow that app configuration information has been received, by yellow to Green said equipment connected to the router failed, please check the configuration of the password is correct or router if it can be connected.