

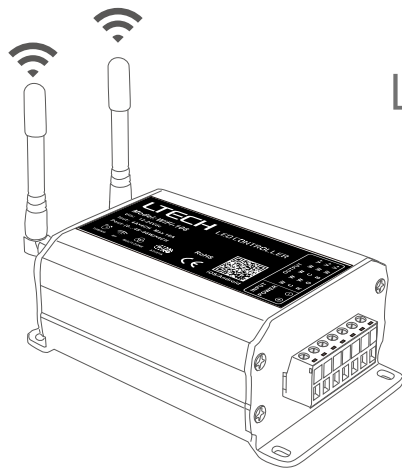
FC CE RoHS

warranty
5 years



www.ltech-led.com

LTECH



Model: WiFi-106

L-BUS Lighting Control System



iOS

Android





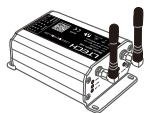
L-BUS is a WiFi lighting control system, consisted of APPs and WiFi controller. Controls various types of LED lighting products by installing the related App on our Android or iOS mobile devices which support WiFi connection.

With DIM, CT adjustment, RGB and RGBW changing 4 in 1 operation, plus 12 zones control function, you can connect directly or by a router.

1. Product Parameter:

WiFi-106 Gateway

Communication Standard:	2.4GHz WiFi, 802.11b/g/n Protocol
Input Voltage:	12~24Vdc
Output Current:	4A×4CH Max. 16A
Max Output Power:	[0~48W...96W]×4CH Max. 384W
Output Control:	Dimming, CT, RGB, RGBW
Operating Temp.:	-30℃ ~55℃
Dimensions:	L128×W73×H45(mm)
Package Size:	L160×W110×H50(mm)
Weight (G.W.):	470g



F12 RF Remote Control

Working Voltage:	3Vdc (Battery CR2032)
Wireless Frequency:	RF 2.4GHz
Package Size:	L150×W46×H18(mm)
Weight(G.W.):	85g



Software Technical Parameters

Platform:	Android 4.0 or above, iOS 8.0 or above
Language:	English
Category:	Appliance

Optional accessories

Touch panel

Single zone control



Output signal: RF + DMX512

Multi-zone control



Output signal: RF + DMX512

Dimming control



Output signal: RF + DMX512

Power touch panel



Output signal: RF + Power output

Remote



RF relay



EBOX-AP

Signal converter



RF to DMX
EBOX-DMX



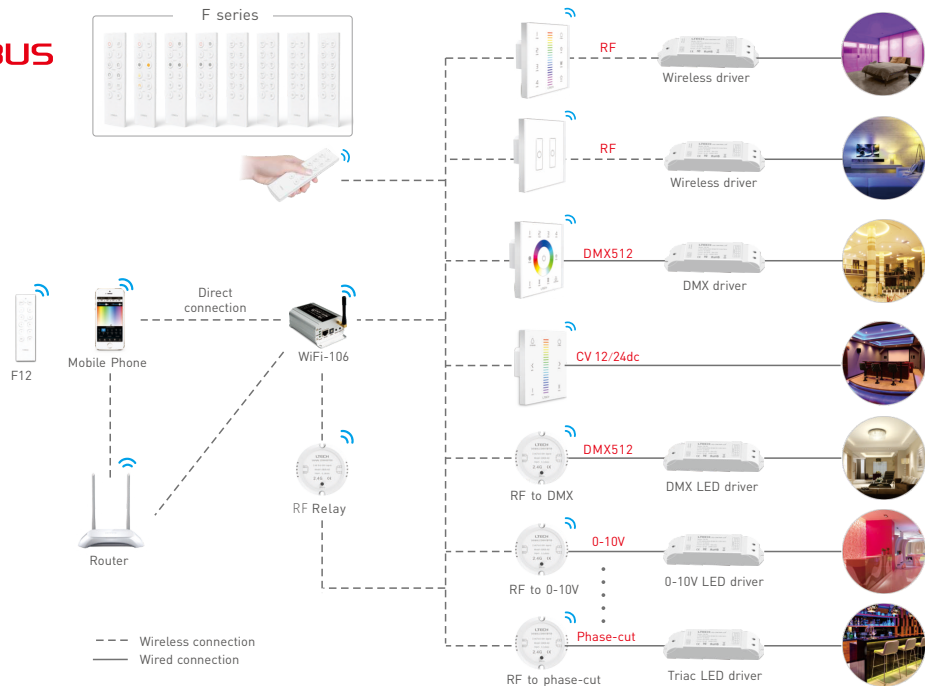
RF to 0-10V
EBOX-AD



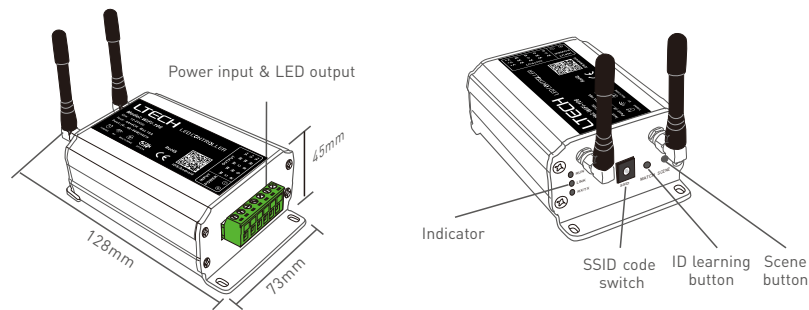
RF to Triac
EBOX-TD

Receiver





2. Configuration Diagram:



3. Controller Operating Instructions:

3.1 Install/Uninstall ANT:

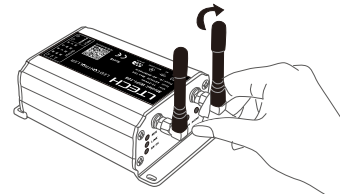
Clockwise to install the WiFi-106 ANT, counterclockwise to take off.

3.2 Work Status Indicator Instructions:

RUN: The indicator light flashes quickly about 60 seconds during the electric initialization. Return to flash slowly after initialization.

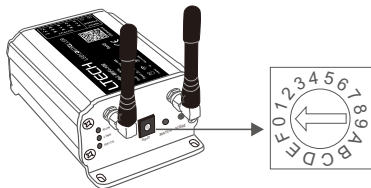
LINK: The indicator light stays lit when the mobile device connects to WiFi-106, and turns off when disconnect.

RX/TX: The indicator light flashes when WiFi-106 receive or transmit the WiFi data, turns off in the free time.



3.3 SSID Number Setting:

Use code switch to set the controller's SSID number, WiFi-106-SSID-X, X stands for a certain No. ranging from 0-F, totally 16 options. which means our product could set 16 isolated LAN in the same area. WiFi-106 will initialize with run LED indicator flashing about 25s quickly, each time the SSID NO. is changed. Mobile devices need to search and connect WiFi again after Initialization finished.

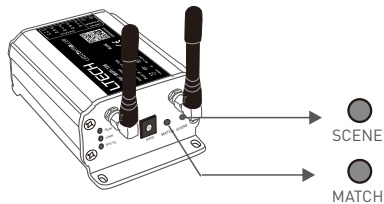


3.4 "MATCH" and "SCENE" Button:

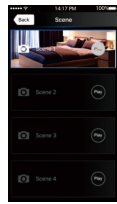
Short press MATCH button, WiFi controller begins its learning ID status for F12 remote (learning method, see P16). Short press "SCENE" button entering into the user-saved scene modes sequentially, 8 scenes total.

[Restore factory settings/Delete password]

Long press "MATCH" and "SCENE" button simultaneously more than 2 seconds, the machine will back to the default parameter, including the parameters of changing modes, zone, group and network. Machine default parameters: Only 1st zone is present, default RGBW mode, the changing mode is RGB jumping, white is the brightest, no groups, network SSID is WiFi-106-SSID-X (X is the actual coding switch corresponding SSID values), WiFi-106 controller restores as direct connection and the connection password is blank.



SCENE button and MATCH button



Scene interface

4. The Instructions of APP Software:

4.1. WiFi-106 Software Installation:

Scan QR Code to download the APP via mobile phone.



iOS/Android

4.2 Software Operating Instructions:

4.2.1 WiFi Connection and Settings

WiFi-106 support 2 connection modes: Direct connection as a router or connect by an additional router.

A. WiFi-106 Controller Direct Connection as a Router:

Enter mobile device's WiFi setting, click the WiFi function, mobile device search the WiFi and list the working WiFi controller automatically (As Figure-1), click the SSID number to connect (default is no password).



Android WiFi connection
(Figure-1)



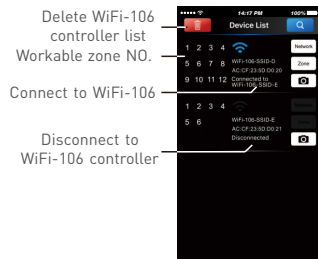
Apple WiFi connection

Attn: When WiFi-106 work as a router, to avoid the mobile device automatically connect to other network, please disconnect the other network in "WiFi setting" interface.

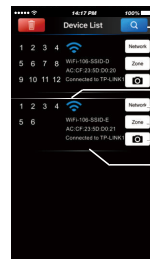
B. Connection with an Additional Router:

Connect WiFi-106 Controller to the Additional Router Network:

- Connect to the WiFi-106 controller, the same step as (4.2.1)
- Click mobile device's icon  to start the software, the software will search and list the working WiFi controller automatically, and there is a blue wireless icon  (as Figure-2-1)



WiFi-106 as
a router interface
(Figure-2-1)



Connect an additional
router interface
(Figure-2-2)

Manual searching the WiFi-106 controller which connect to the additional router

Workable WiFi-106 Network

Zone function

Change the background
Connect to the additional router TP-LINK1

- Click "Network" key to enter network interface (as Figure-3-1), start "connect to exiting LAN", software will search the workable WiFi net SSID list, choose the specified router to connect (Attn: do not choose WiFi-106 controller), can add the WiFi-106 controller to the wireless router (as figure-3-2 the wireless router TP-LINK1)

Repeat the abc steps if you need connecting multiple WiFi-106 controllers to this wireless router

- Exit WiFi-106 software, enter mobile device setting-wireless network setting, choose the wireless router to connect. Device list interface shows as Figure 2-2 when re-opening the WiFi-106 software. Now completes the steps to connect to the additional router.



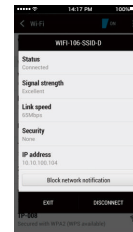
(Figure-3-1)



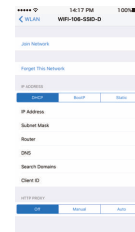
(Figure-3-2)

Network interface

Attn: In this connection mode, to avoid the mobile device automatically connect to WiFi-106 after the setting has completed, please disconnect WiFi-106 in the "WiFi setting" interface.

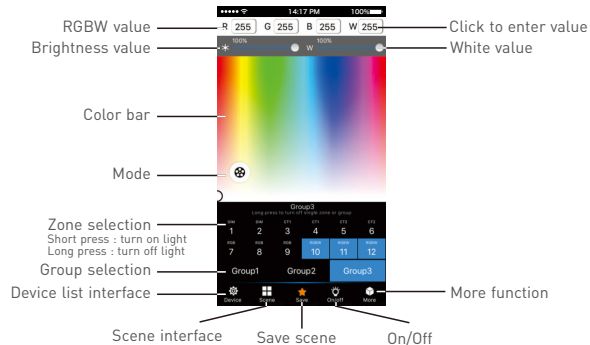


Android cancellation of the save of
WiFi-106 connection

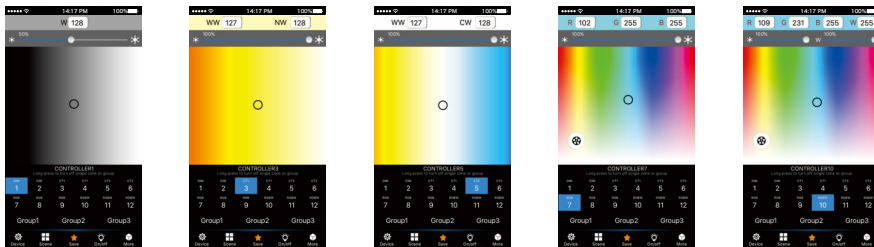


Apple cancellation of the save of
WiFi-106 connection

4.2.2 Main Interface (5 types)



5 Main Interface

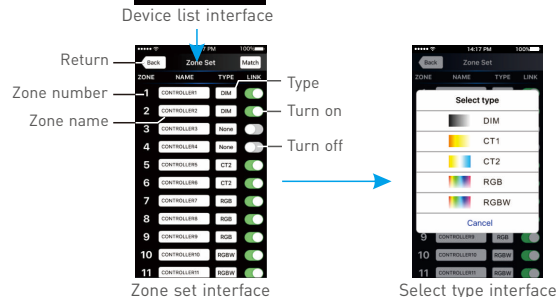


4.2.3 The Learning Method of Zone Control

A. Turn On Zones Control

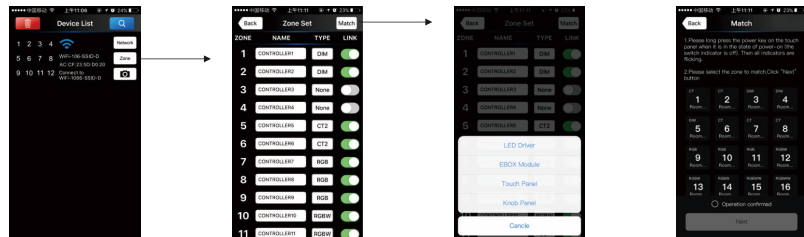
Click "Zone" on the **Device List** interface, enter **Zone set** interface. turn on each zone, choose the LED type accordingly (zones are nameable).

[Attn]: WiFi-106 itself is defaulted as zone NO.1, connecting lights is optional, slave control will be zone NO.1 if not connected.



B. Learning ID:

Click "Zone" button in the "Device List" interface, enter "Zone Set" interface, and click "Match" to match with LED driver, panel and EBOX Module.

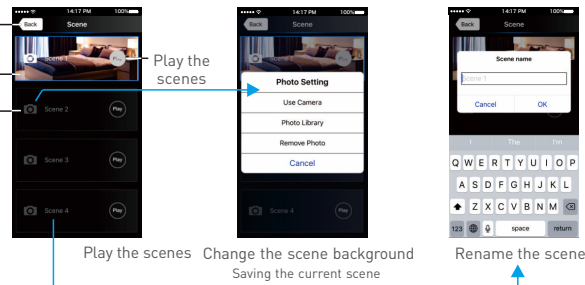


[Attn]: Reset function is available during ID cancellation. Considering dysfunction in rare cases, please cancel the ID and re-sync. Please refer to the relevant product manual for the ID cancellation method.

4.2.4 Scene Interface

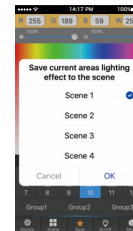


Back to the main interface
Scene background
Click to change the scene background



4.2.5 Save scene

Save



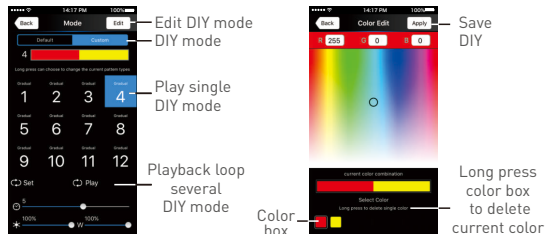
Save current areas lighting effect to the scene

4.2.6 Mode Interface for RGB / RGBW Type

Mode



4.2.7 DIY Interface

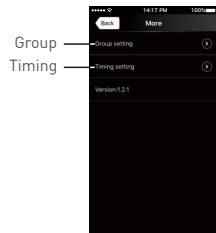


DIY mode interface

Edit single DIY mode

Edit single DIY mode

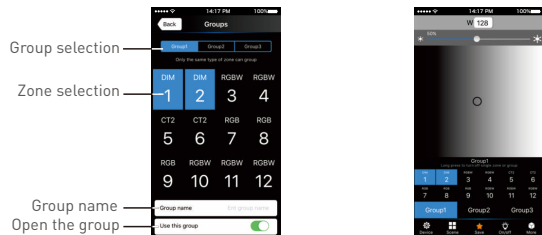
4.2.8 More Function



Group Features :

- Choose several zones as one group and control in sync.
- Max 3 groups, same LED types in one group and one zone could join multiple groups.
- Enable the group status, the corresponding group will appear on the main interface.
- Group settings will be auto off if zone LED type on & off state changed.

A. Group



Group selection

Zone selection

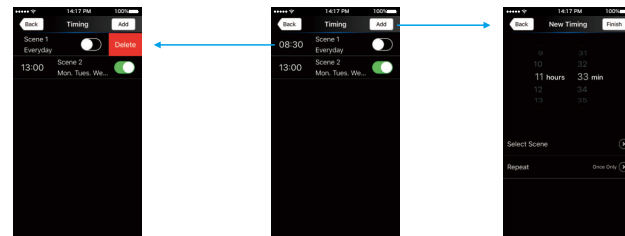
Group name

Open the group

Group interface

Group operations in main interface

B. Timing



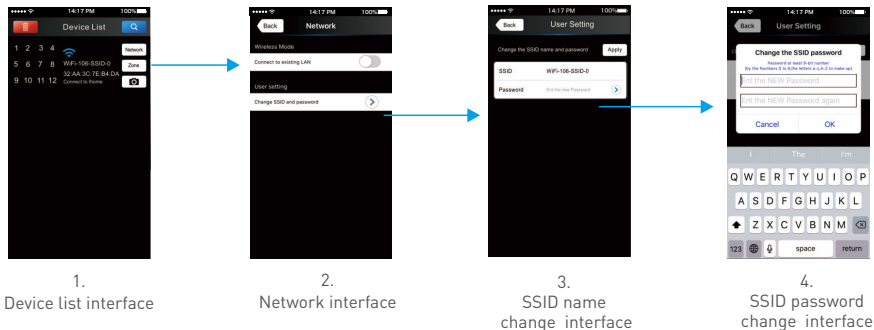
Slide left to delete timing

Timing interface

Add new timing

5. WiFi Network SSID Name and Password Setting

On device list interface, click "Network" key to enter Network interface, select "Change SSID and Password" (Click "⊗") to enter User Setting interface. Type new SSID name and password (Min. 8 characters, consist of 0-9, a-z and A-Z). Click "Apply" button on the top right corner of the interface to save the changes.



[Attn]: Direct connection of using WiFi-106 as a router, exit the App after the SSID name and the password changed, reconnect the WiFi-106 on the mobile devices.

For extra router connection, just press "🔍" on Device List interface to research WiFi-106.

[Attn]: If forget the WiFi network password, press "MATCH" and "SCENE" button simultaneously above 2s to restore the factory default settings and delete the WiFi network password (see P5)
[Restore factory settings / Delete password]

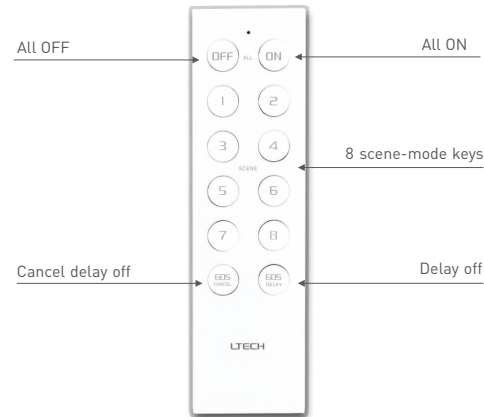
6. Remote Operating Instructions

Learning ID

Short press "MATCH" on WiFi-106, the buzzer long beep, press any key on F12, the buzzer beep again, ID matched.

Cancelling ID

Long press "MATCH" on WiFi-106 above 6s, the buzzer long beep, ID cancelled (cancelled all matched remotes).

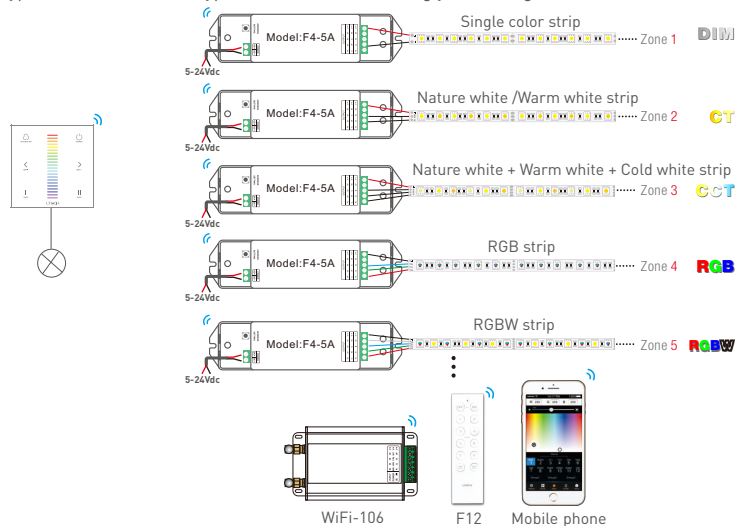


7. Wiring Diagram

7.1 Connection Between Zone Receiver to LEDs (Same as WiFi-106)

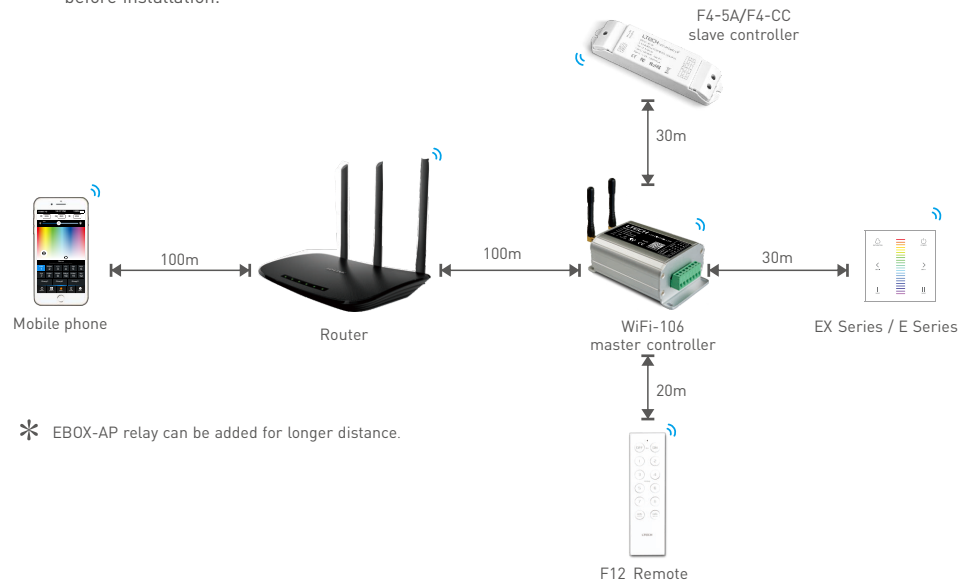
[Attn]: WiFi-106 itself is defaulted as zone NO.1, connecting lights is optional, slave control will be zone NO.1, if not connected.

All zones could be used for same LED types or not. e.g. single color dimming in all zones, all set to DIM type. Set different LED type in each zone accordingly (Dimming, CT or RGB, etc.).



7.2 Remote Distance Reference

[Attn]: The following distance figures is measured in spacious environment. Please refer to the actual test distance before installation.

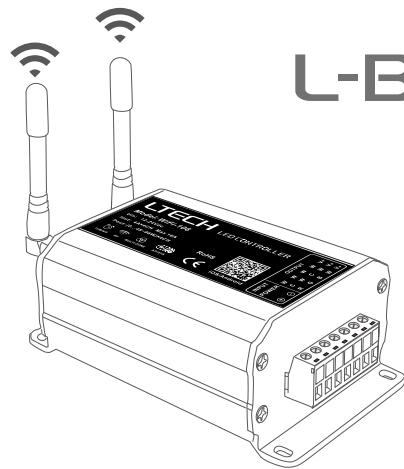


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LTECH



L-BUS 照明控制系统



iOS

Android

Model: WiFi-106





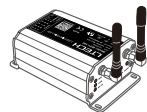
L-BUS控制器应客户需求而诞生的，我们在安卓、iOS系统的手机、平板电脑等移动设备上安装App，通过移动设备自带的WiFi功能便能遥控LED照明产品，它使得LED的控制更加智能化和人性化。一台WiFi-106控制器可以实现调光、色温、RGB、RGBW四大功能，同时支持最大12个区域的控制。

L-BUS控制系统支持直连或者通过路由器连接两种网络连接方式。

一 性能参数:

WiFi-106 网关

通信标准:	2.4GHz Wi-Fi, 802.11b/g/n协议
输入电压:	12~24Vdc
最大负载电流:	4A×4路 Max 16A
最大负载功率:	[0~48W...96W]×4路 Max. 384W
输出控制:	调光,色温,RGB,RGBW
工作温度:	-30°C~55°C
产品尺寸:	L128×W73×H45mm
包装尺寸:	L160×W110×H50mm
重量 (毛重):	470克



F12 情景遥控器 (配送)

工作电压:	3Vdc(CR2032纽扣电池)
发射频率:	RF 2.4GHZ
产品尺寸:	L150×W46×H18mm
重量 (毛重):	85克



软件技术参数

运行平台	安卓4.0以上, iOS8.0以上
语言	英文
类别	工具

可选配件

触摸面板

单区控制 输出信号: RF+DMX512



多区控制 输出信号: RF+DMX512



调光控制 输出信号: RF+DMX512



功率型 输出信号: RF+功率输出



遥控



RF中继器



信号转换器



RF 转 DMX
EBOX-DMX



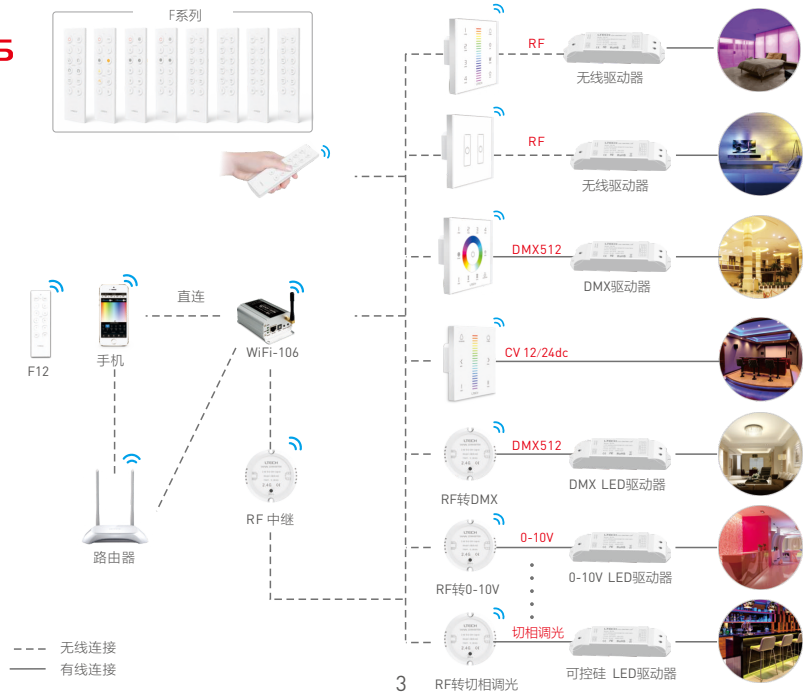
RF 转 0-10V
EBOX-AD



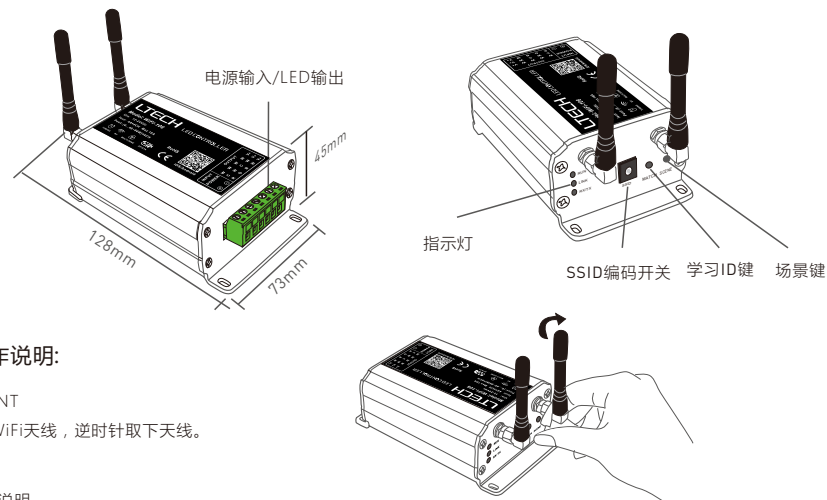
RF 转 Triac
EBOX-TD

接收器





二 结构图:



三 控制器操作说明:

3.1 安装/卸下ANT

顺时针安装WiFi天线，逆时针取下天线。

3.2 工作状态灯说明

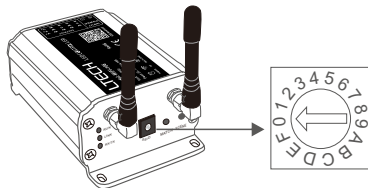
RUN 控制器上电初始化时刻快闪约60秒，初始化完毕后恢复慢闪。

LINK 有移动设备与WiFi-106控制器建立WiFi连接时常亮，未连接时灭。

RX/TX WiFi-106控制器接收或发送WiFi数据时闪烁，空闲时灭。

3.3 设置SSID号

使用编码开关设置控制器的SSID号，控制器的SSID号为WiFi-106-SSID-0至WiFi-106-SSID-F共16个编号(如下图所示)，也就是说用我们的产品在同一小区域可以设置16个互相隔离的局域网，一旦编码开关变化，控制器将重新进入初始化状态，RUN灯快闪约25秒，初始化完毕移动设备需要重新搜索连接。



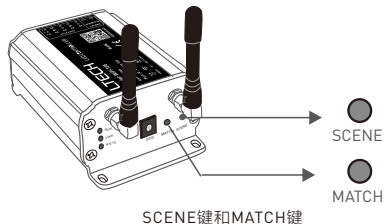
3.4 MATCH键和SCENE键

短按MATCH键，WiFi控制器进入学习状态，用于学习WiFi控制器标配的F12遥控器(学习方法见P16)。

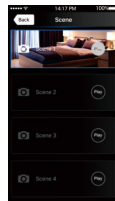
短按SCENE键顺序进入WiFi软件所保存的情景模式，共有8个情景模式。

【恢复出厂设置/删除密码】

同时长按MATCH键和SCENE键超过2秒，整机恢复默认参数值，包括变化模式参数、分区与群组参数、网络参数。整机默认参数：只有1号分区存在，默认RGBW模式，RGB跳变变化模式，白色最亮，没有群组，网络SSID为WiFi-106-SSID-X(X为实际SSID编码开关对应值)，WiFi-106控制器恢复为直连方式，连接密码为空。



SCENE键和MATCH键



场景界面

四 App软件使用说明:

4.1 App软件下载

扫描以下二维码，安装APP。



iOS/Android

4.2 软件操作说明

4.2.1 网络连接设置方法

WiFi-106控制器支持两种网络连接方式：本身作为路由器方式与连接至外部路由器方式。

● WiFi-106控制器作为路由器直连方式：

进入移动设备设置-无线网络设置，勾选开启WiFi功能，移动设备自动搜索并列出当前工作中的WiFi控制器（如图-1），点击WiFi控制器SSID号进行连接（默认无安全密码）。



安卓版WiFi连接



苹果版WiFi连接

(图-1)

注：WIFI-106作为路由器时，为避免移动设备自动连接到其他网络，请在移动设备【WIFI设置】信息对话框，断开已连接的其他网络。

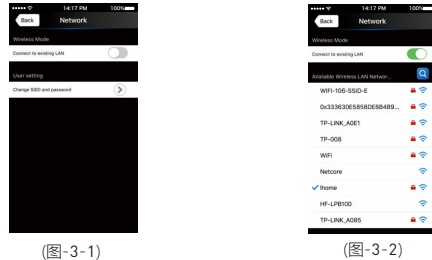
- 连接至外部路由器方式：

将WiFi-106控制器加入外部路由器网络中：

- 进行以上（4.2.1）步骤连接WiFi-106控制器。
- 点击移动设备上WiFi-106软件图标  启动软件，软件自动搜索并列出当前已经连接的WiFi-106控制器，并有蓝色无线图标  显示（如图2-1）



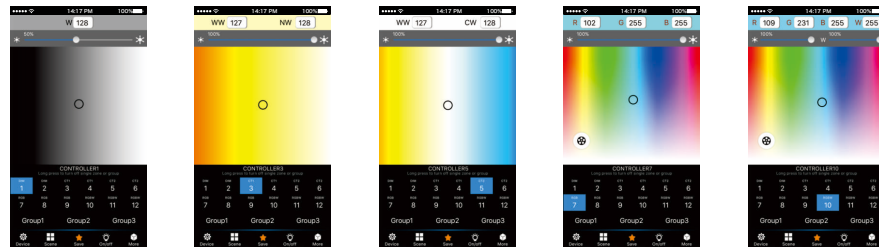
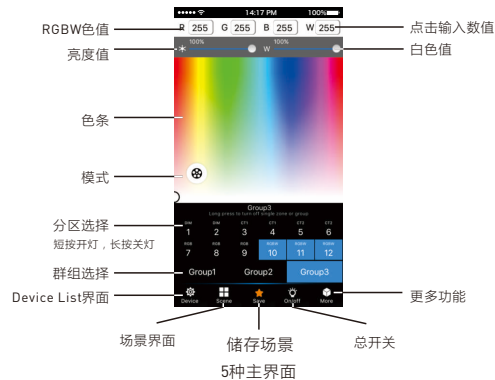
- 点击Network键，进入Network界面（如图-3-1），选择开启Connect to existing LAN项，软件自动搜索出可用的无线网络SSID列表，选择指定的无线路由器进行连接（注：不要选择WiFi-106控制器），即可将B步骤中的WiFi-106控制器加入到该无线路由器（如图-3-2 无线路由器TP-LINK1）。
- 如需要将多台WiFi-106控制器连接至该无线路由器时，需重复以上abc步骤
- 退出WiFi-106软件，进入移动设备设置-无线网络设置，选择该无线路由器进行连接。再打开WiFi-106软件时，Device List界面如图2-2。至此完成连接至外部路由器步骤。



注：连接至外部路由器方式后，为避免移动设备仍自动连接到WiFi-106，请在移动设备【WiFi设置】对话框里，断开已连接的WiFi-106网络。



4.2.2 主界面(共5种类型界面)



4.2.3 分区控制器学习方法

(1)开启分区:

点击Device List界面中WiFi-106控制器的Zone键, 进入Zone Set界面, 按照现场灯光控制需求, 开启多个分区, 选择灯光类型, 命名分区名称。

【注】WiFi-106主控本身默认为第一分区, 主控可选择是否连接灯具, 如果不连接灯具可用分控来代替第一分区。



Device List界面



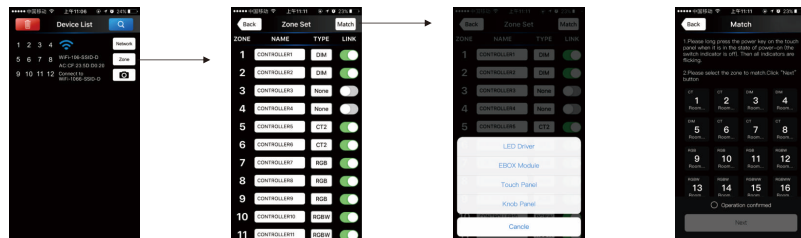
Zone Set界面



选择类型界面

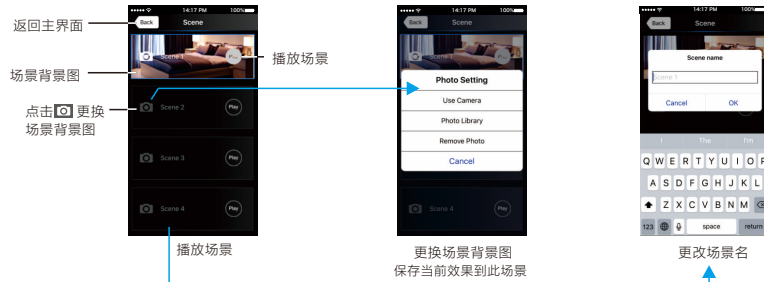
(2)分区学习ID:

在“设备列表”界面点击“Zone”按钮，进入“Zone set”界面，点击“Match”进行LED驱动器、面板及EBOX的配对。

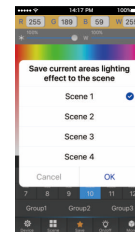


注：分区删除ID功能同时具有复位功能，在极少情况下出现个别错乱故障，可以通过删除ID重新学习恢复正常。
分区删除ID方法请参看相关产品说明书。

4.2.4 场景界面



4.2.5 储存场景



储存当前灯光效果为场景

4.2.6 RGB/RGBW类型的Mode界面



4.2.7 DIY界面



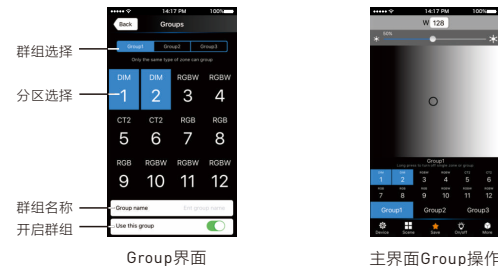
4.2.8 更多功能



群组特点：

- 群组操作用于同时选择多个分区，多个分区一起改变颜色、色温、亮度。
- 最多可设置3个群组，群组中的全部分区必须为同一类型，一个分区可同时归属于多个群组。
- 将群组设为启用状态，对应的群组才会出现在主界面中。
- Zone Set界面中改变了分区的类型或启用状态，则自动取消相关分区的群组设置。

A. 群组



B. 定时



五 WiFi网络SSID名称和密码设置:

在Device List界面, 点击Network键进入Network界面, 选择Change SSID and password项(点击②)进入User Setting界面, 键入新的SSID名称和密码(密码至少8位, 可由数字0-9, 字母a-z, A-Z组成), 点击界面右上角Apply按钮, 保存所作修改。



【注】如果是WiFi-106作为路由器直连方式, 修改SSID名称和密码后, 请退出软件, 进入移动设备系统设置重新连接WiFi-106。
如果是外连至无线路由器连接方式, 仅需要在Device List界面点击 , 重新搜索出改变SSID名称后的WiFi-106控制器。

【注】如果忘记WiFi网络密码, 还可同时按住WiFi-106控制器上的学习键  和场景键  2秒以上, 将WiFi控制器恢复出厂设置, 即可去掉WiFi网络密码(详见P5页面【恢复出厂设置】)。

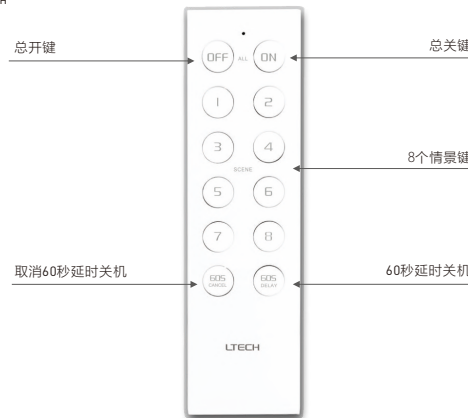
六 遥控器操作说明:

学习ID

短按WiFi-106控制器的学习键  , 蜂鸣器长响, 再按F12遥控器任意键, 蜂鸣器再次长响, 学习成功。

删除ID

长按WiFi-106控制器的学习键  6秒, 蜂鸣器长响, 删除ID成功(删除WiFi-106控制器所学习的全部遥控器)。

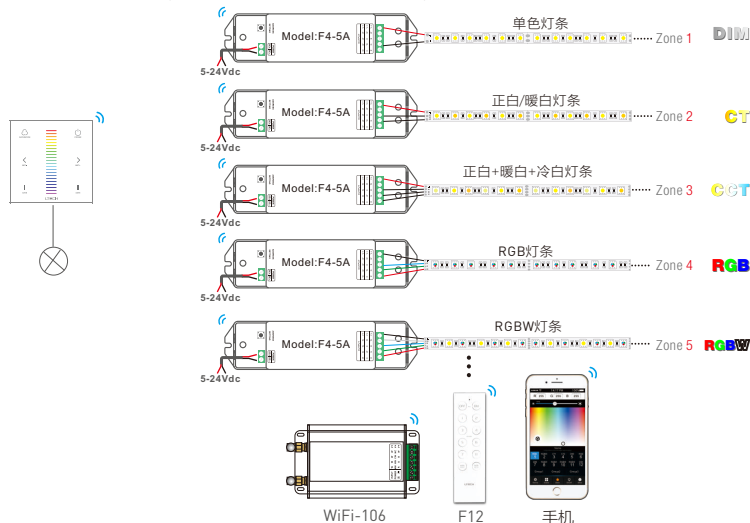


七 连接示意图:

7.1 分区控制器与灯具连接(WIFI-106接法相同)

【注】WiFi-106主控默认为第一分区，主控可选择是否连接灯具，如果不连接灯具可用分控来代替第一分区。

多个分区可以设置成同一类型或多种类型，例如所有分区都是单色调光用，那就全设置成DIM调光类型，如有调光、色温、RGB等多种类型灯具，不同分区设置成不同的灯具类型，其灯具连接图如下：



7.2 遥控距离参考

【注】以下距离为空旷环境中实测对视距离，在非空旷环境测试无线距离会有所减少，安装前请以实际测试距离为准。

