

MC506X | PWM 5-IN-1 LED intelligent grouping controller

MC206X Series controllers+MESH Series remote control Specification



MC506W/WIFI



MC506B/BLUETOOTH



MC506Z/ZIGBEE

Compatible remote control A single device can support 10 remote controls at the same time



MR101/DIM



MR102/CCT



MR103/RGB



MR104/RGBW



MR105/RGBCCT



MR011/DIM



MR023/3 WAY

Compatible voice assistant

Support language command switch, adjust brightness, and color.



小米小爱



小智管家



天猫精灵



百度小度



Amazon Alexa



Yandex Alice



Google Assistant

Local + remote control:

The MESH remote control realizes local physical button control (such as switching, group switching, and basic dimming) through MESH, which is suitable for the elderly, children, or quick operation.

The MSHE five-in-one controller supports remote APP control through Wi-Fi/BLUETOOTH/ZIGBEE gateway + Tuya ecology, can finely adjust the brightness and dynamic effects, and can be shared Equipment, create groups and other functions.

Features

- Each node has a signal relay function, which makes long-distance transmission more sensitive and consumes less power.
- Tuya LED intelligent five-in-one controller has five output modes of DIM, CCT, RGB, RGBW and RGB+CCT. Double-click [SET] to easily switch the state.
- MESH wireless transmission technology, stable signal and strong penetration.
- No tools required, instant wiring, convenient and simple.
- Support matching multiple devices, multiple devices can be controlled at the same time, and a remote control can manage and synchronize up to 500 controllers. Each controller can be supported by 10 remote controls. (Control distance 30 meters)
- The brightness of the remote control can be adjusted according to personal preferences, and the brightness and speed of the dynamic mode can be edited.
- The controller can adjust the brightness, color, voice control, select various dynamic or custom profiles, timing, countdown and other functions through the Graffiti/Smart Life APP.
- The device clicks on the operation and automation, automatic transmission and synchronization functions.
- PWM (pulse width modulation) technology is used to ensure a smooth transition of light and avoid eye fatigue.
- Voice control, supports speakers such as Amazon Alexa, Song Assistant, Tmall Elf, and Xiaomi Xiaoai Voice assistant.
- Support multi-controller cascade, easily covering large-area lighting scenes such as shopping malls, theaters, and building facades.

Device parameters

LED controllers

Input voltage	DC 5-24V
Input current	6/CH; 15A max
Access signal	MESH+BLUETOOTH
Control the distance	30M
Size	L109XW40XH26mm
Authentication	CE,ROHS

Environment

Operating temperature	Ta: -20°C ~ +60°C
Maximum temperature of the case	Tc: +65°C
IP rating	IP20

Wrap

Package size	L125 XW45XH30mm
Box size (100 pcs)	L26 XW24 XH16 cm

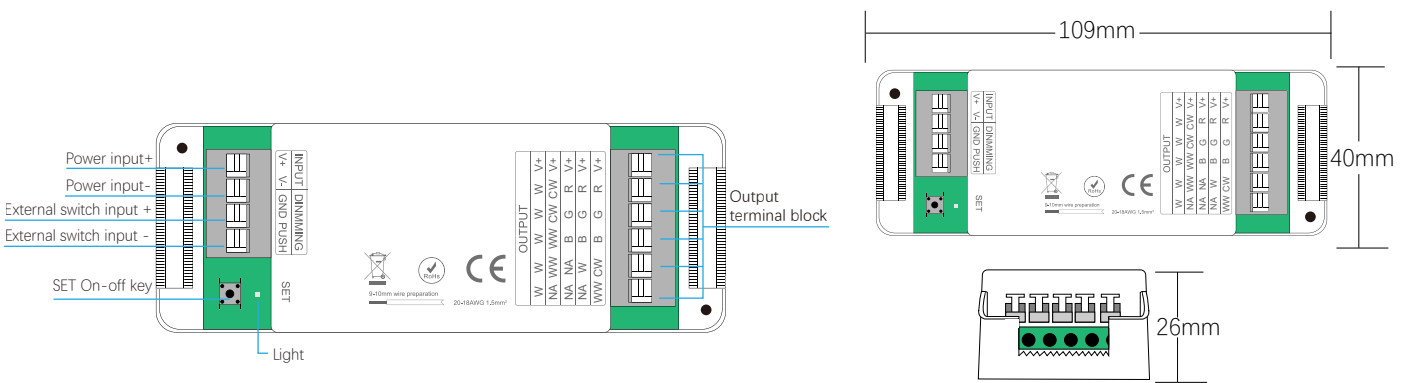
LED remote control

Voltage	3V(AAA+2PCS)
Operating current	10mW
Transmission frequency	MESH (2.4GHz)
Standby power consumption	15uA
Transmit power	6dBm
Color temperature range	3000-6000K
Remote control distance	30M
Size	L122XW53XH21mm
Operating temperature	Ta: -20°C ~ +60°C
Authentication	CE,ROHS

Wrap

Package size	L13XW5.8XH2.7cm/0.105kg
Box size (100 pcs)	L27XW30XH15cm/11kg

Equipment mechanism and installation



Wiring diagram of the device

Connect the strip light

AC100-240V

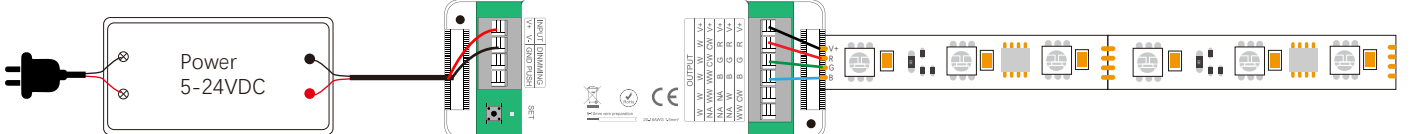
DIM

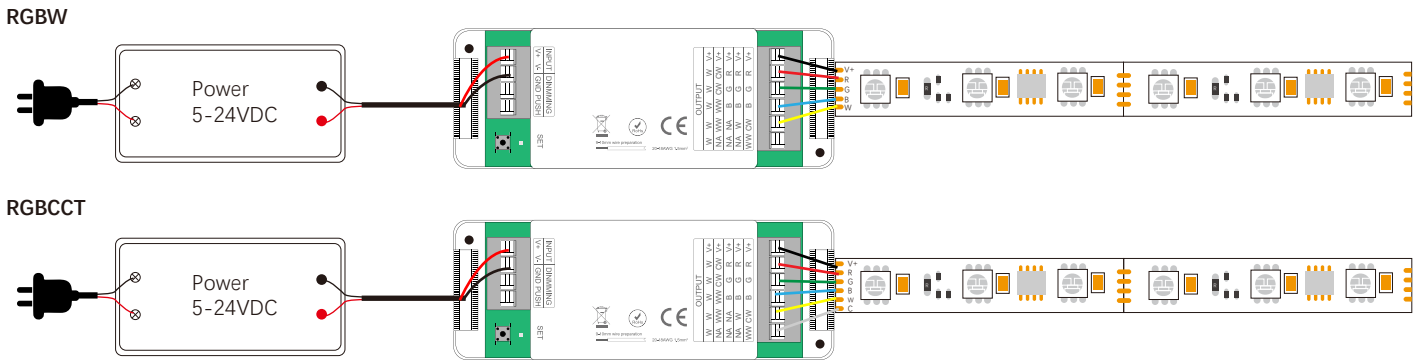


CCT



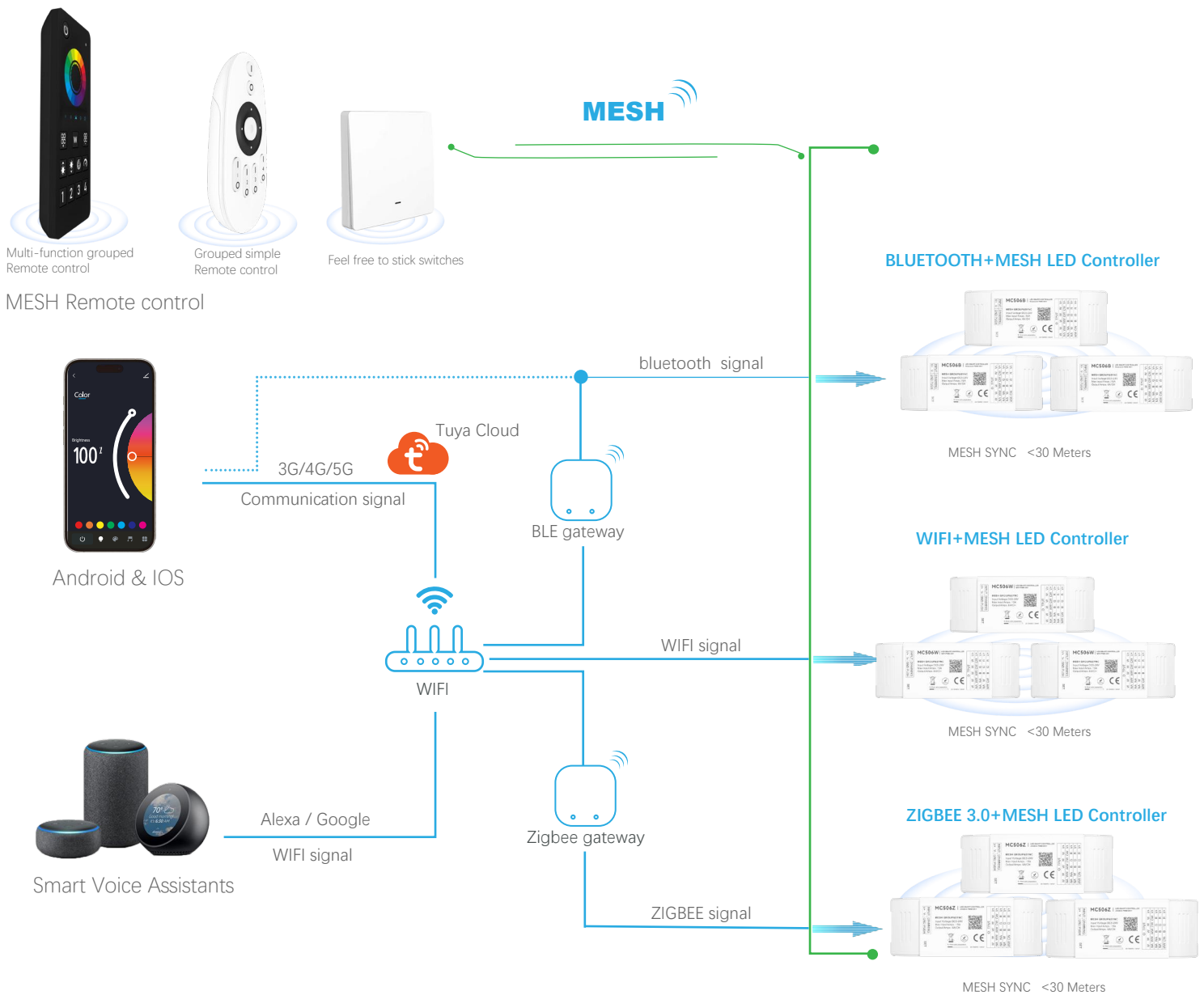
RGB





Schematic diagram of the control connection

MESH wireless communication technology



Tuya smart download & APP network connection (C-206A/2.4G You can't connect to the app)

1. Download and install the [Smart Life] or [Tuya Smart] APP

Search for [Tuya Smart] on Apple or Google Play or scan the QR code below to download and install the app.

Please click on the "Sign Up" button to create an account and use it for the first time, if you already have an account, log in directly.

Please download the corresponding Tuya/Smart Life APP according to your region.



Scan the QR code to download the APP

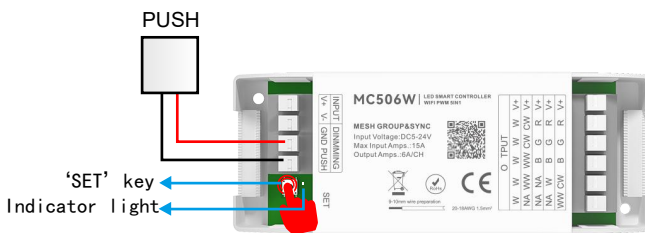


Smart Life APP



Tuya Smart APP

2. Product function description & reset the device



Double-click the 'SET' button on the controller to switch states.

- The indicator light is white, indicating the DIM state.
- The indicator light is yellow, indicating the CCT status.
- The indicator light is red: RGB status
- The indicator light is green: RGBW status
- Indicator light blue: RGBCCT status

Control Method 1: 'SET' Button	Control Method 2: Power Off	Indicator light status	Next steps	Functional Result
Short press (release within 1 second)	Not supported	No special flicker	No additional action required	Switch device power on/off status
Double-click	Not supported	As shown in the above picture	No additional action required	Switch device mode status
Press and hold for 3 seconds, then release	3 times	Rapid flicker	Press any group button on the remote control	Complete the pairing of the remote control with the corresponding group
Press and hold for 5 seconds, then release.	5 times	Slow blinking	Operate network settings on the mobile app	Complete the device network configuration and connect to the mobile app
Press and hold for 10 seconds, then release.	10 times	Rapid flicker	No additional action required	Device reset, clear WiFi network information and remote control pairing

2.2-1. Adjust the controller frequency



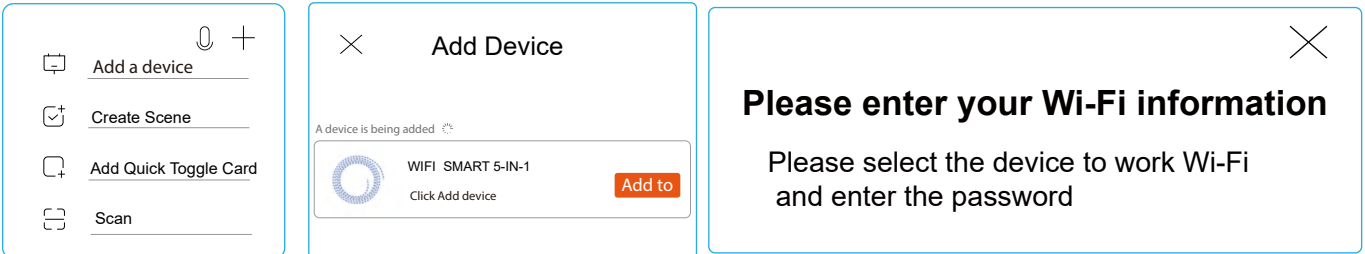
- Press and hold the "SET" button of the controller for the first time, let go after the indicator light enters the fast flashing state, and wait for the indicator light to stop flashing automatically to complete the first stage of operation.
- Press and hold the "SET" button again to closely observe the flashing color of the indicator light:
 - If the indicator light flashes blue, it means that the current frequency is 16K;
 - If the indicator light flashes yellow, it means that the current frequency is 1K;
 - If the indicator light flashes green, it means that the current frequency is 8K.
 When the indicator light of the target color is observed to start flashing, let go immediately and complete the second stage of frequency confirmation. At this time, the controller frequency has been set to the corresponding frequency of the indicator light.

3. Connect to your smartphone

MC506W Connection process

1. Make sure your smartphone is working under a WLAN network.
2. Open the login APP, press and hold "SET" to add a device, if it is not found, please click "+" in the upper right corner, and then manually select "Add Device", when adding, you need to enter the WiFi password of your smartphone connection, and wait for 5-10 seconds to complete the connection after successfully entering
3. Once the connection is successful, the new device will be displayed on the home page, then tap on the device and enter the control interface to do more

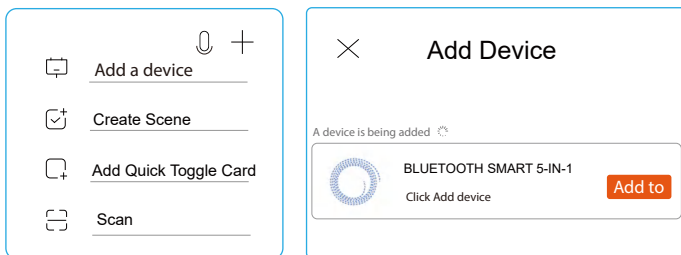
Follow these steps to complete the connection:



MC506B Connection process

1. Make sure your smartphone is working under a WLAN network.
2. Open the login APP, press and hold "SET" to add a device, if you don't find it, please click "+" in the upper right corner, then manually select "Add Device", wait for 5-10 seconds to complete the connection.
3. Once the connection is successful, the new device will be displayed on the home page, then tap on the device and enter the control interface to do more

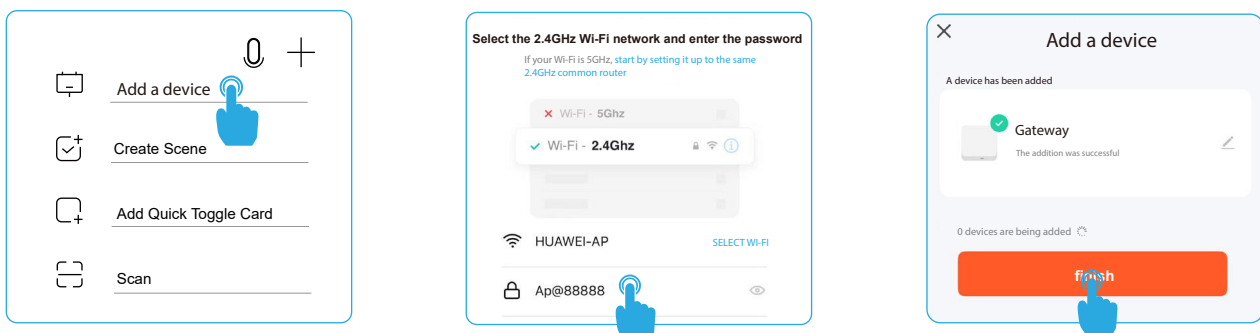
Follow these steps to complete the connection:

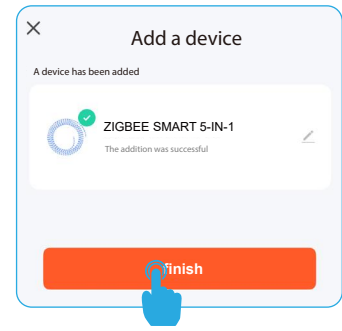
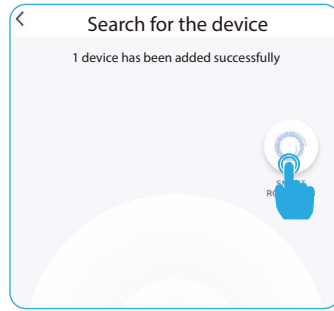


MC506Z connection to TUYA APP process

1. Make sure your smartphone is working under a WLAN network.
2. Open the Tuya APP, select Manually Add Gateway Central Control, select Zigbee Gateway, and enter the WIFI password to connect (Incorrect WIFI password will cause the connection to fail, non-2.4G network WIFI also.) will cause the connection to fail)
3. Reset the Zigbee gateway device, the red and blue lights of the Zigbee gateway are always on, turn on the power supply, please confirm that the red light is flashing, the blue light is always on, and the red light is always on after the connection is successful.
4. Click Done to enter the gateway control interface, add sub-devices, and confirm that the sub-devices belong to the network configuration mode (please place the gateway, controller, and smartphone close to each other for quick speed.) Pairing identification) long press the controller "SET" for 5 seconds, after the connection is successful, the sub-device will be displayed on the home page, then tap the device and enter the control interface to do more.
5. After the controller is installed in the APP, we can easily control the LED lighting with the APP.

Follow these steps to complete the connection:





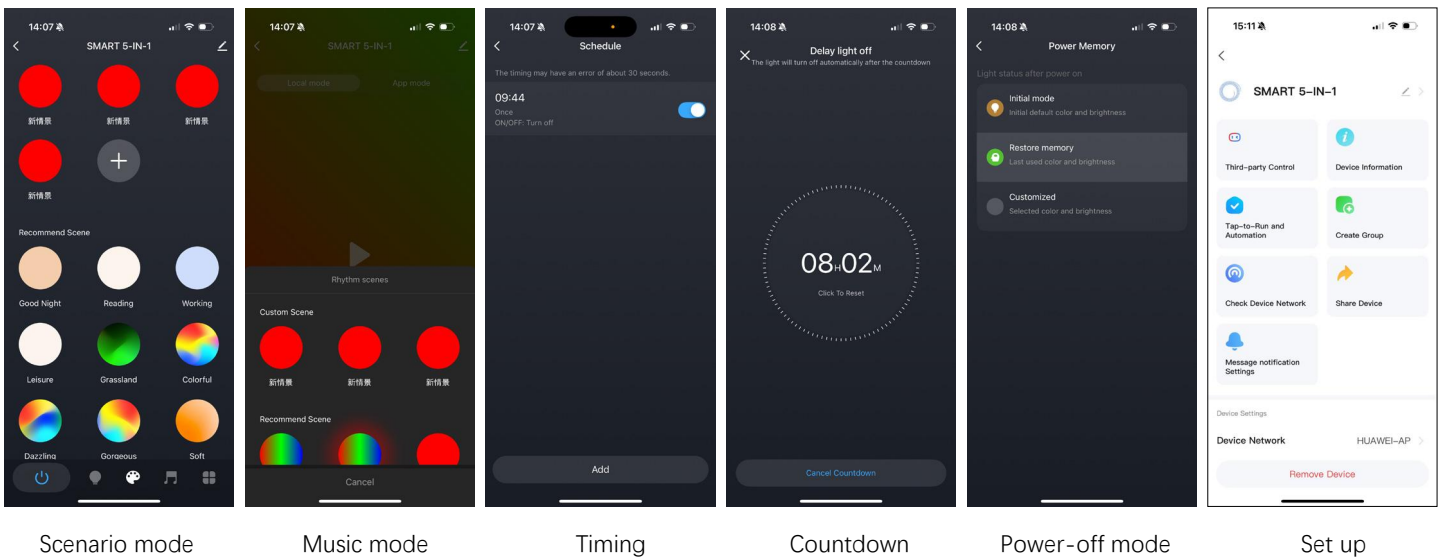
Introduction to the functions of the APP interface



DIM/CCT/RGB/RGBW/RGBWC Status Interface: You can set the color and brightness of the light, and you can quickly color it with one click.

After the controller is connected to the TUYA APP, double-click the "SET" button to switch the APP status.

Note: The TUYA APP will automatically switch the corresponding status according to the color of the indicator light, and the status interface without the corresponding indicator will not be able to operate.



Scenario mode: 32 recommended scenario modes and 10 customized; Customize the static, jumping, breathing, color brightness, and change speed of the scene, a total of 10 scenes can be customized.

Music mode: It is divided into local mode and APP mode; The local mode can adjust the sensitivity, 5 recommended scenes, and can be customized to add groove scenes, a total of 3 custom groove scenes can be added. The APP mode is not adjustable, and the phone needs to be turned on. The microphone detects the music.

Timing: Customize multiple times to perform on/off light actions;

Countdown: Define the countdown time to perform the on/off light action, and the light will automatically turn off when the countdown ends.

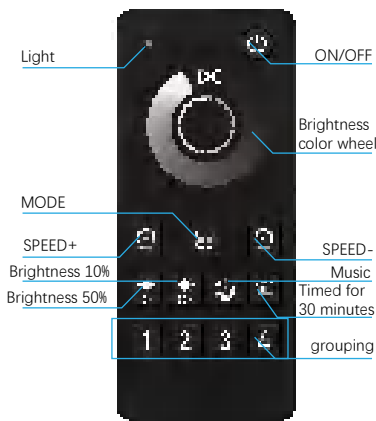
Power-off mode: The energizing reaction can set the state of the light after the energizing is applied

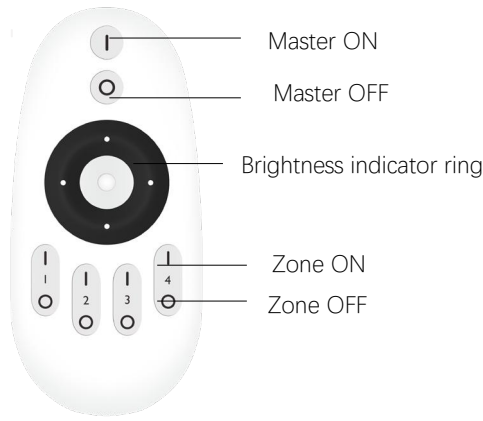
Set up: This interface can be bound with third-party language control, one-click execution and automation, group creation, device sharing and other functions

Description of the function of the remote control

Multi-function grouped Remote control

Main ON/OFF button **1 2 3 4** Grouping key Short press; Select the key function. Long press; Perform key functions.

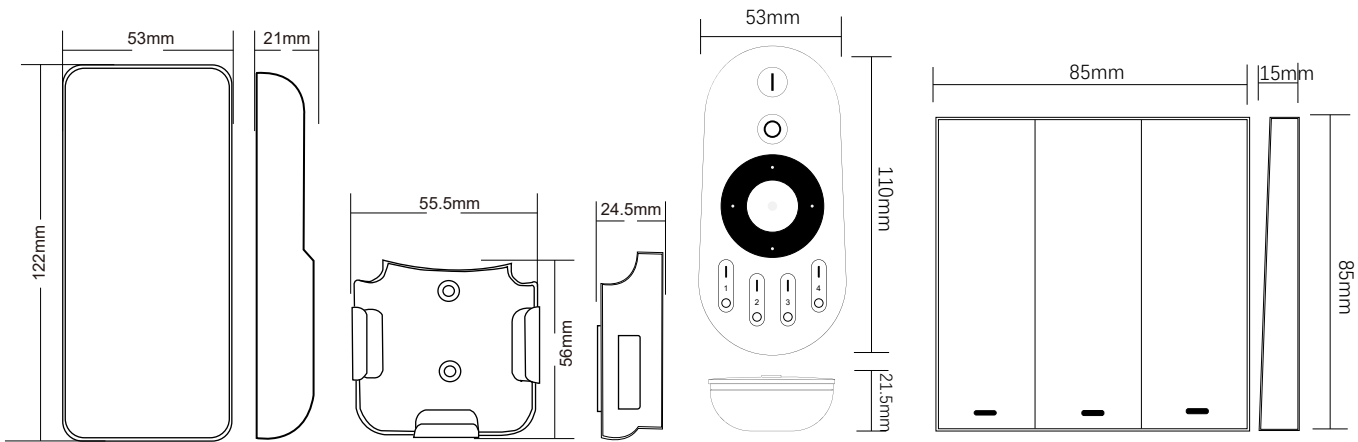




Grouped simple Remote control



Feel free to stick switches



Safety Precautions

1. The remote control is a precision electronic product, please do not use it in a humid or high temperature environment for a long time. If not in use for a long time, remove the battery and store it in a cool, dry place.
2. Do not use this device in a large area of metal or in an environment with strong electromagnetic waves nearby, otherwise it will seriously affect the control distance
3. Please check whether the input voltage of the constant voltage power supply meets the requirements of the controller, and check whether the connection of the cathode and anode is correct.
4. The working voltage is DC 5~24V, if the voltage is higher than 24V, the controller will be damaged.
5. Non-professional users cannot directly disassemble the controller, otherwise it may cause fire and electric shock.
6. The working temperature (Ta) is -20~60°C; Do not use the device in direct sunlight, humidity, or other high-temperature areas.
7. When the equipment load reaches 15A, the wire diameter must be more than 1.5 square millimeters
8. When the device load exceeds 10A, the connection cable from the DC port to the LED strip must be shorter than 40cm.
9. Please install the device in a good heat dissipation area.