

MC20XB | PWM 1-5CH BLUETOOTH LED intelligent grouping controller

MC20XB Series controllers+MESH Series remote control Specification



MC201B/DIM



MC202B/CCT



MC203B/RGB



MC204B/RGBW



MC205B/RGBWC

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



MR101/DIM



MR102S/CCT



MR102/CCT



MR103/RGB



MR104/RGBW



MR105/RGBCCT



MR011/DIM



MR023/3 WAY



Compatible voice assistants

Support language command switch, brightness, color.



Amazon Alexa



Yandex Alice



Google Assistant



已接入米家
works with
mijia



小米小爱



小智管家



天猫精灵



百度小度

Local Remote Control:

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

MSHE BLUETOOTH Controller Through the BLUETOOTH gateway Tuya Ecology supports remote APP control, which can finely adjust brightness, color and dynamic effects, and can share devices and create groups and other functions.

peculiarity

- MESH wireless transmission technology, stable signal and strong penetration.
- Each node has a signal relay function, which makes long-distance transmission more sensitive and consumes less power.
- Support matching multiple devices, multiple devices can be controlled at the same time, and one 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 preference, 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 scenario modes, timing, countdown and other functions through the Tuya/Smart Life APP.
- Device click to run and automate, automatic transfer and synchronization function.
- PWM (Pulse Width Modulation) technology is adopted to ensure smooth light transition and avoid eye fatigue.
- Voice control, support Asia Alexa, Google Assistant, Tmall Genie, Xiaomi Xiaoai voice assistant and other speakers.
- Support multi-controller cascade, easily cover large-area lighting scenes such as shopping malls, theaters, building facades, etc.

Device parameters

LED controllers

| | |
|----------------------|----------------|
| Input voltage | DC 12-48V |
| Input current | 6/CH; 15A max |
| Access signal | MESH+BLUETOOTH |
| Control the distance | 30M |
| Size | L113XW39XH20mm |
| 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 | L11.6XW4.55XH2.45cm/0.06kg |
| Box size (100 pcs) | L42.5XW26.5XH17cm/6kg |

LED remote control

| | |
|-------------------------|---------------------------|
| voltage | 3V(AAA+2PCS) |
| Operating current | 10mW |
| Transmission frequency | MESH (2.4GHz) |
| Transmit power | 6dBm |
| Color temperature range | 2700K-6500K |
| Dimming range | 1-100% Infinitely dimming |

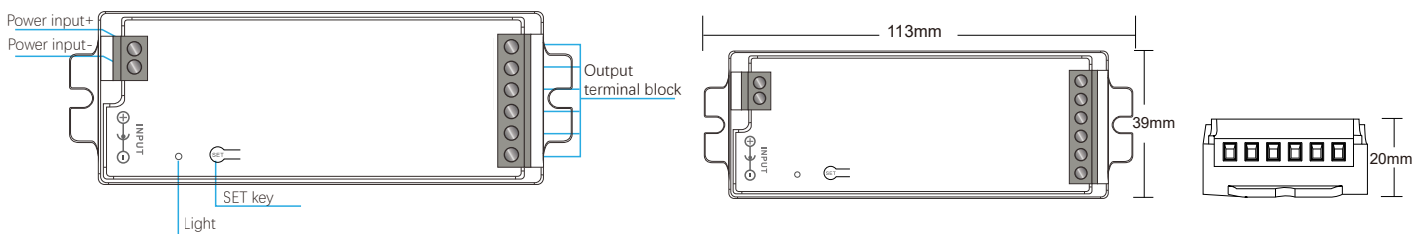
Remote control distance

| | |
|-------------------------|----------------|
| Remote control distance | 30M |
| Size | L122XW53XH21mm |
| Operating temperature | Ta:-20°C~+60°C |
| Authentication | CE,ROHS |

Wrap

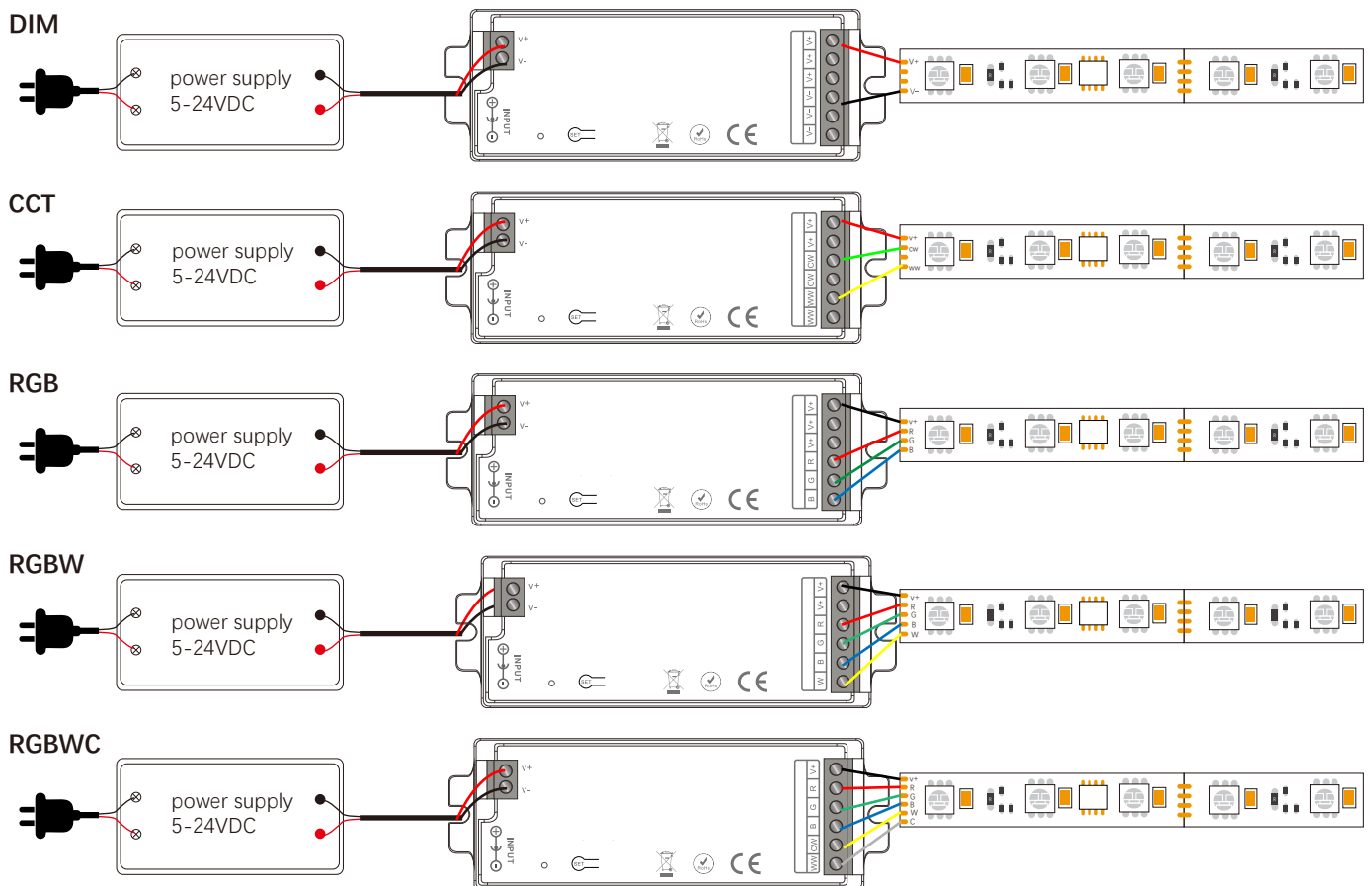
| | |
|--------------------|-------------------------|
| Package size | L13XW5.8XH2.7cm/0.105kg |
| Box size (100 pcs) | L27XW30XH15cm/11kg |

Equipment mechanism and installation



Wiring diagram of the device

Connect the strip light AC100-240V



| 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 |
| 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 |

Trigger-type distribution network: When the controller is in an un-distribution network state, the network can be directly distributed within 30 seconds of power-up.

2.2-1.Adjust the controller frequency

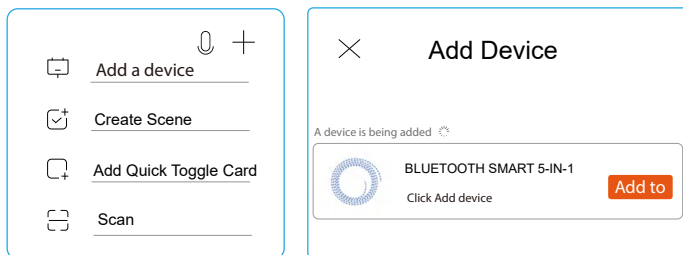


- Press and hold the "SET" button of the controller, let go after the indicator light flashes quickly, and wait for the indicator light to stop flashing. This stage is the preparation stage for frequency switching
- The indicator light stops flashing, and immediately press and hold the "SET" button again (enter the frequency selection stage):
 - When the indicator light turns to flicker slowly, let go immediately and the controller frequency is switched to 1kHz;
 - If the indicator light flashes quickly, let go immediately, and the controller frequency is 16kHz.

3. Connect to your smartphone

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:

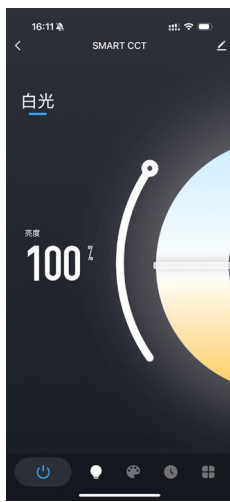


Tuya APP interface

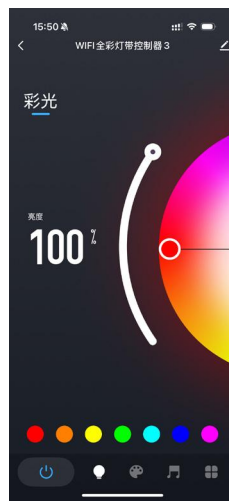
Main interface: white light mode; color temperature mode; IPL mode; Color light mode+ White light mode; Color light mode+ color temperature mode;



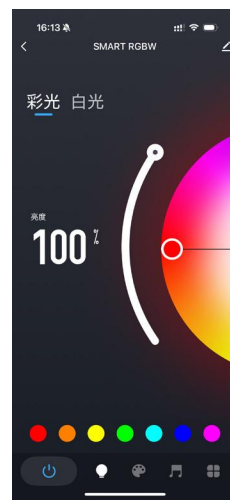
white light mode
DIM



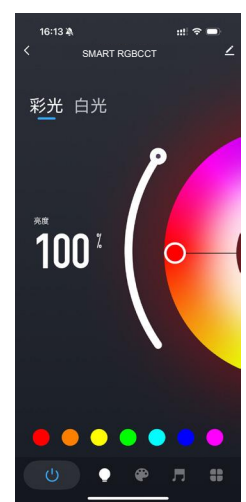
color temperature mode
CCT



IPL mode
RGB



Color light mode+
White light mode
RGBW

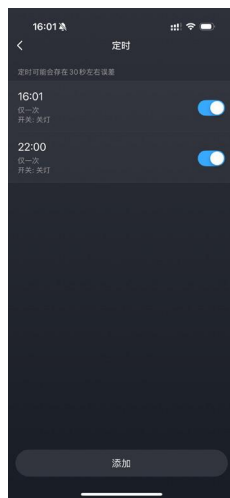


Color light mode+
color temperature mode;
RGBCCT

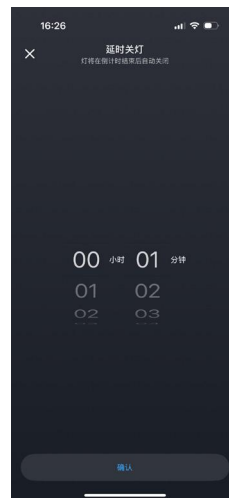
MC201、MC202 Tuya app interface



Scenario mode



Timing



Countdown



Power-off mode



Set up

White light mode/color temperature mode: one-key switch, basic dimming

Custom Scenes: Six Scenario Modes Customize the static, jumping, breathing, color, brightness, and transformation speed of the scene, a total of 4 scenes can be customized.

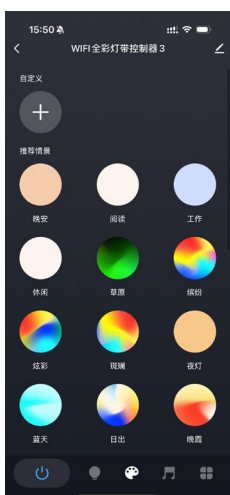
Timing: Customize multiple times to perform on/off light actions. There may be an error of about 30 seconds in timing.

Countdown: Customize the countdown time to perform the on/off action of the lights, and the lights will automatically turn off after the countdown ends.

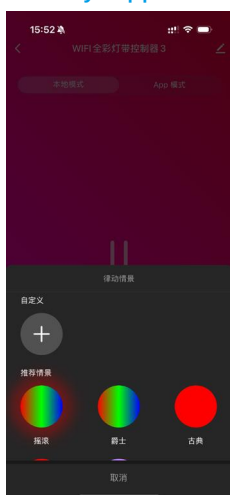
Power-off memory: Power-on reaction can set the state of the light after power-on.

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

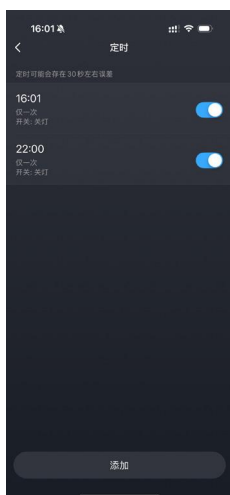
MC203、MC204、MC205 Tuya app interface



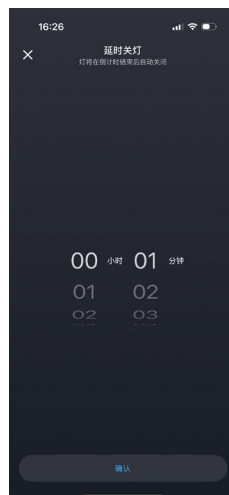
Scenario mode



Music mode



Timing



Countdown



Power-off mode



Set up

IPL mode/IPL&White mode/IPL&color temperature mode: one-key switch, IPL: set the color and brightness of the light, one-key shortcut color. White Light: Set the brightness and color temperature of white light.

Custom scenes: 32 story modes (30 story modes in RGB) Custom custom can adjust the static, jumping, breathing, color brightness, and change speed of the scene, a total of 10 scenes can be customized.

Music Mode: Local Mode: Adjustable Sensitivity, 5 Recommended Scenes, Custom Rhythm Scenes, a total of 3 Custom Rhythm Scenes can be added. APP mode: the sensitivity is not adjustable, you need to turn on the mobile phone microphone to detect the music.

Timing: Customize multiple times to perform on/off light actions. There may be an error of about 30 seconds in timing.

Countdown: Customize the countdown time to perform the on/off action of the lights, and the lights will automatically turn off after the countdown ends.

Power-off memory: Power-on reaction can set the state of the light after power-on.

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

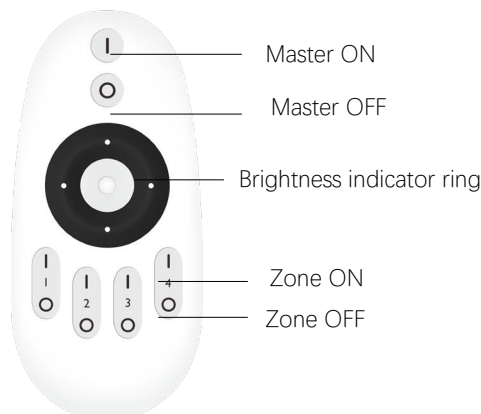
Description of the function of the remote control

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.

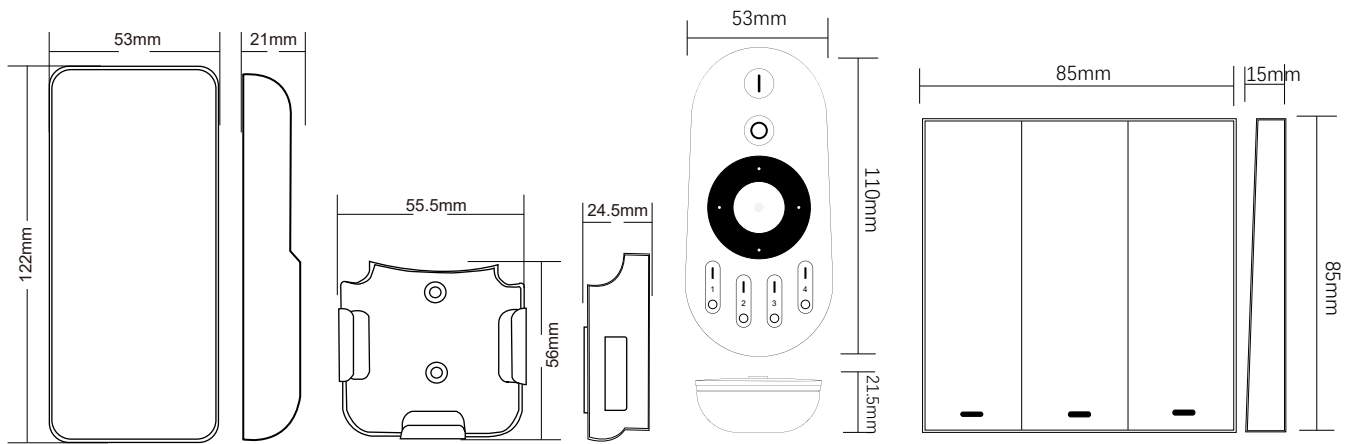


Grouped simple Remote control



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.