

尺寸: 220*172mm

Manual Instruction

WiFi&BT 2-in-1 LED Controller

Model No.: C21W

Our new WiFi&BT 2-in-1 LED Controller comes in 2 output modes: single color and CCT. Control it via the Tuya Smart Life app or 4G for long-distance use. It also works with 2.4GHz RF remotes and supports third-party voice control.

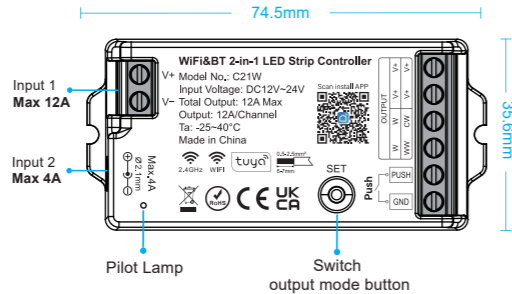
1. Features

- Color temperature 2700~6500K
- Dim brightness
- Bluetooth wireless control
- 2.4G RF wireless transmission technology
- Tap-to-Run & automation
- Auto-transmitting & Synchronization
- Link/Unlink/Reset Button on the controller
- Timing setting / countdown turn on / off LED lights
- PWM frequency adjustable
- WiFi wireless control
- Smartphone APP control
- Support third party voice control
- Support remote control (Control distance 30m)
- Group control
- Device sharing
- Support music rhythm
- Overheating protection
- Do not disturb function

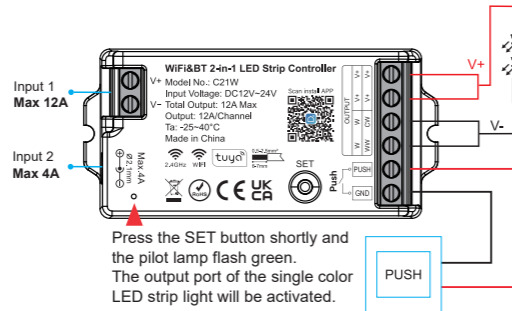
2. Parameters

Model No.: C21W
 Input Voltage: DC12-24V(5.5*2.1mm)
 Output: 12A/Channel (Total 12A Max)
 Working Temperature(Ta): -25~40°C
 Support: WiFi&2.4GHz RF
 Size: 74.5*35.6*16.5mm
 Control Distance: 30M

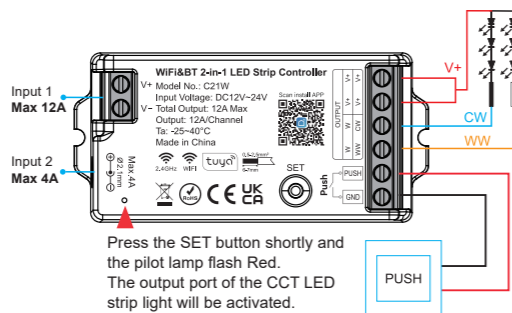
Connection Diagram:
 Input Voltage=Output Voltage



▼ Connect to Single Color LED strip diagram

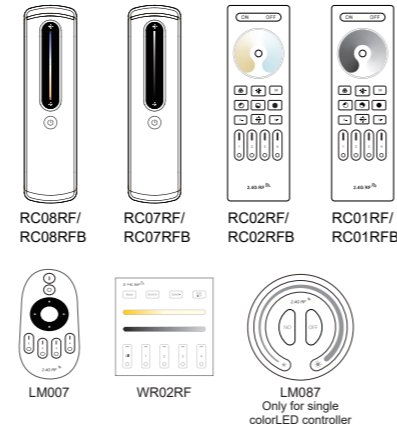


▼ Connect to CCT LED strip diagram



3. Compatible Remote Controller:

Compatible with these remote controls(Purchased separately).For more details, pls read the remote instruction.

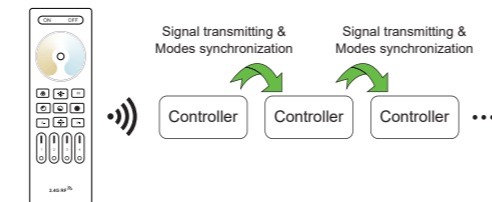


4. Signal transmitting

One strip controller can transmit the signals from the remote control to another controller within 30m, as long as there is a strip controller within 30m,the remote control distance can be limitless.

5. Mode synchronization

Different controllers can work synchronously when they are started at different times, controlled by the same remote, under same dynamic mode and with same speed.



6. PWM Frequency Switching

Press and hold the SET button for more than 15 seconds:

Indicator light color	Pilot lamp	Pilot lamp
PWM frequency	When the green indicator flashes slowly, the controller switches to 2KHz high-frequency mode.	When the red indicator flashes slowly, the controller switches to 1KHz low-frequency mode (default frequency).

7. Smartphone APP WiFi Control Instruction

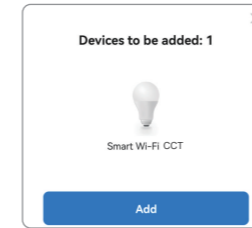
7.1. Download and install [Smart Life] or [Tuya Smart] APP
 Search for [Smart Life] in Apple or Google store or scan following QR code to download and install the app.

Please click "Register" button to create account while using it in the first time, Log in directly if you already had account.

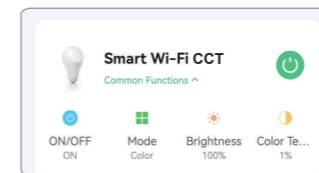


7.2. Link to Smartphone&Reset Devices

- Make sure Smartphone is working on WLAN network.
- Long press "SET" button, or switch ON-OFF power 4 times(ON-OFF-ON-OFF-ON-OFF-ON-OFF), when the white light blink, the device come into link or reset mode.
- Open the sign-in APP, it will discover the devices automatically, (If it's not discovered, please click "+" on the top right corner, and select "add new device" manually) follow the steps and complete linking;



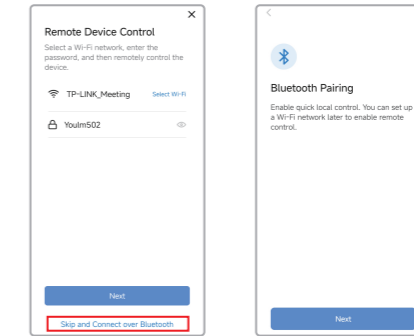
(4). Added devices will be displayed on homepage after linking successfully, then click the device and go into the control interface for more operation.



Note: Please complete the linking within 3 minutes, after 3 minutes, the devices will not on linking mode, you have to do above "2" step, and link again.

8. Bluetooth Control:

1. Initial Network Setup: Choose Bluetooth direct connection mode directly. Refer to the figure below for operation.



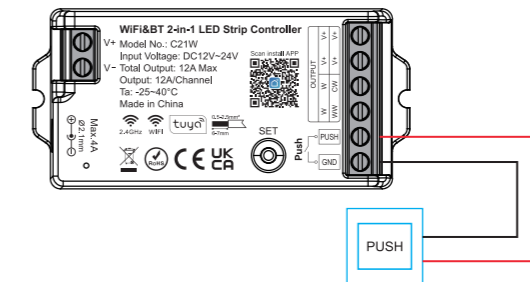
2. Auto-switch When WiFi Fails: Once the device is paired via WiFi, it will automatically switch to Bluetooth for short-range control if the router is accidentally powered off, as long as your phone's Bluetooth is on.

Note:

Bluetooth-only connection (without WiFi) supports short-range basic control only. Advanced features (grouping, scheduling, third-party voice integration, etc.) are disabled in this mode.

9. PUSH Switch instruction

9.1. PUSH Switch Connection Diagram



9.2. PUSH Switch Function

2.1 Dimming Function:

- Short press PUSH Switch: Turn ON or Turn OFF the light.
- Long press PUSH Switch: Dimming the brightness smoothly. Long press Push Dimmer, then loosen the Push Dimmer, then long press again, switch increase brightness or decrease brightness

2.2 Active Link/Unlink mode to remote:

Short press Push Switch over 4 times within 5 second, make the device into Link/Unlink Mode. The Link/Unlink will last for 5 seconds.

2.3 Smart Link to APP

Long press Push Switch for over 15 seconds, under light OFF mode.

⚠ Attention

- Please check whether the input voltage of the constant voltage power supply is in accordance with the controller, and please check the connection of both the cathode and anode.
- The working Voltage is DC12~24V, the controller will be broken if the voltage is higher than 24V.
- Non-professional user cannot dismantle the controller directly, otherwise, it may cause fire and electric shock.
- The working temperature(Ta) is -25~40°C; Do not use the device to direct sunlight, moist and other high temperature area.
- Please do not use controller around the mental area and high magnetic field, otherwise, it will badly affect the control distance.
- When the device load to 12A, wire diameter must be over 1.5mm².
- When the device load over 10A, the connecting cable must be shorter than 40cm long from DC port to LED strip.
- Please install the device on good dissipation area.
- Message Reporting Frequency Limit: Each product is restricted to 3500 messages per day. This function affects customers developing DIY APPs and cloud services, as the number of control commands sent daily by the APP and cloud services cannot exceed 3500. Exceeding this limit will result in the product being uncontrollable via the APP.
- Power On/Off Frequency Limit: The number of power on/off cycles cannot exceed 40 within 10 minutes. Exceeding this limit will result in a 10-minute delay before network configuration can be performed. The product must remain powered on during the delay period; any power interruption will reset the timer.

Controller can not use in humid area



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