Tuya smart 5CH controller
User Manual

(Please read through this manual carefully before use)

1. Brief Introduction

Welcome to use this Multi-platform mobile APP Cloud 5 in 1 controller, it adopted PWM(Pulse-Width-Modulation) controlling technology, support Tuya/amazon Alexa /Smallzhi housekeeper and so on to control.Easy to use, it's suitable for RGB+CCT, RGB, RGBW, color temperature or single color LED strip.

2. Product parameter

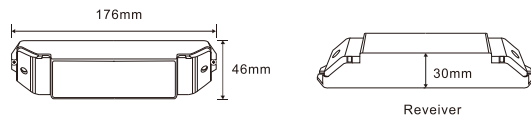| Model	TY5
Input Voltage	DC12V-48V
Output Current	4A x 5CH
Output Power	240W(12V)/ 480W(24V)/ 720W(36V)/ 960W(48V)
Output	Constant Voltage PWM
Dimming Range	1%-100%
Grey Scale	4096 levels x 5CH
PWM Frequency	1180Hz
Product Dimension	L176 x W46 x H30 (mm)
Weight(G.W)	120g

3. Feature function

1. 5 in 1 function, used to control RGB+CCT, RGB, RGBW, color temperature or single color LED strip.
2. Tuya APP cloud control, support on/off, color temperature, brightness and color saturation adjust, count down turn on/off light,cycle repeat turn on/off light, scene edit and music play function.
3. Voice control, support amazon Alexa and Smallzhi housekeeper.
4. Power loss memory function.
5. Light on/off fade time 0.5s, 3s setting.
6. Multi-controllers are controlled synchronously using an APP.
7. Multiple users share the same device to operate.

4. Safety warnings

1. In order to use it properly and safety, please read user's manual carefully before installation.
2. Please don't install this controller in lightening, intense magnetic and high-voltage fields.
3. To reduce the risk of component damage and fire caused by short circuit, make sure correct connection.
4. Always be sure to mount this unit in an area that will allow proper ventilation to ensure a fitting temperature.
5. Don't connect cables with power on; make sure a correct connection and no short circuit checked with instrument before power on.
6. Please don't open controller cover and operate if problems occur. The manual is only suitable for this model; any update is subject to change without prior.

5. Dimensions

176mm

46mm

30mm

Reveiver

6. Operating instructions

1. Tuya APP network configuration :

a. Long press the match key(for more than 2s), press the dip switch to switch the lamp type or repeat power on and off for 5 consecutive times, the previous network configuration will be cleared, and re-enter network matching mode. Enter Smart config when changing the lamp type, long press the match key to alternately switch the Smart and AP config.
b. After entering enter Smart config, the LED indicator flashes fastly, and flashes slowly after entering AP config. Bluetooth match mode.
c. The status of the LED indicator during the network configuration process: The WIFI information is configured but the router is not connected, the LED indicator flashes twice and stops for 2 seconds. The router is connected but not connected to the Cloud, the LED indicator flashes three times and stops for 2 seconds. When the Cloud is successfully connected, the LED indicator will be steady on.
d. If the controller network configuration succeed, you can find RGB+CCT device (or other DIM, CCT, RGB or RGBW)in Tuya APP.
e. If smart config failed, please try AP config.

2.Tuya APP interface:

DIM type:
Touch brightness slide to adjust brightness.

RGBW type：
Enter the white light mode gradually, turn on the W channel and turn off the RGB channel and then touch brightness slide to adjust the brightness.

RGB type:
Enter the white light mode and gradually change to RGB mixed white. Then touch the brightness slide to adjust the brightness.

RGB or RGBW type:
Touch color circle to adjust static RGB color.
Touch brightness slide to adjust color brightness.
Touch saturation slide to adjust color saturation, RGBW automatically turn off W channel after entering color light mode.

RGB+CCT type:
Touch color circle to adjust static RGB color.
Touch brightness slide to adjust color brightness.Touch saturation slide to adjust color saturation.The WW and CW channels are automatically turned off when entering the color light mode.

CCT type:
Touch color circle to adjust color temperature.
Touch brightness slide to adjust brightness.

RGB+CCT type:
Touch color circle to adjust color temperature.
Touch brightness slide to adjust brightness.RGB will turn off automatically when entering white light mode.

Scene mode:
Support for all light type,and each mode supports independent color editing (up to 8 colors), in which dynamic change can set the color changing speed and changing mode.

In music mode, you can use your phone's microphone as a signal source to control light changes.
The Timer key can turn on or turn off light in the next 24 hours.
It can be set to turn on or off the light only once, or set the cycle to turn the lights on or off repeatedly.

Notes:
If you need to switch the light on/off fade time, you can quickly press the turn on/turn off key for five times (within 5s) through the Tuya control interface or short press the controller's matching button.
If you want to set the color temperature fade effect, click any mode in scene mode and then edit, change the color changing mode to breath mode, then add scene color to set the new color to white light. After setting the target effect of color temperature fade, then click submit key to save.
If you want to set the color gradual bright & fade effect, click any mode in scene mode and then edit, change the color changing mode to breath mode, then add the scene color to set the new color to the same color, and set the brightness of the new color to the lowest.
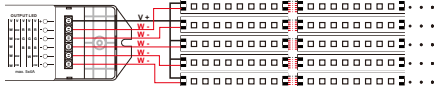In the same mode it only supports 4 colors of gradual bright & fade at most.

Malfunction	Causation	Solution
a. No Light	1. No power from the socket 2. Reverse connection of power +/- 3. LED lights positive pole not connect to the power	1. Check the socket 2. Modify the connection 3. Check the connection
b. Wrong color	1. wrong wiring	1. Modify to the correct wiring
c. APP control delay or no response	1. Excessive network latency 2. The controller do not connect the network	1. Check the network environment of the router connected to the controller 2. Check the LED lights status of the controller,and determine the network status of the controller
d. Occasionally flashing in the static status of lighting	1. Unstable switching power supply 2. LED lights wiring are not connected properly	1. Check the wiring terminal 2. Check the wiring terminal

Onboard LED status indicator：

1. When the LED indicator flashes steadily and quickly, the module is in Smart config.
2. When the LED indicator flashes steadily and slowly, the module is in AP config.
3. If the LED indicator flashes steadily for 2 times and turns off for 2 seconds, the module is successfully configured but is not connected to the router.
4. If the LED indicator flashes steadily for 3 times and turns off for 2 seconds, the module is successfully configured and connected to the router but not to the Cloud.
5. If the LED indicator flashes steadily for 5 times and turns off for 2 seconds, the module is malfunction.
6. If the LED indicator is steady on, the module has successfully connected to the Cloud. If the network is interrupted after successfully connecting to the Cloud, the LED status update will be delayed.
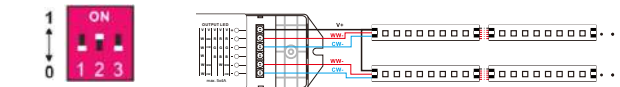
7. Wiring Diagram:

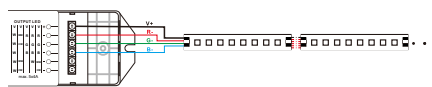1.Use for DIM :
Set the DIP switch on the controller to 001

Note: When use for DIM led strip,the terminal blocks of R, G, B, WW, CW can be connected to the single LED strip and the output brightness is consistent.
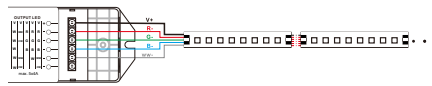
2.Use for CCT :
Set the DIP switch on the controller to 010

3.Use for RGB :
Set the DIP switch on the controller to 011

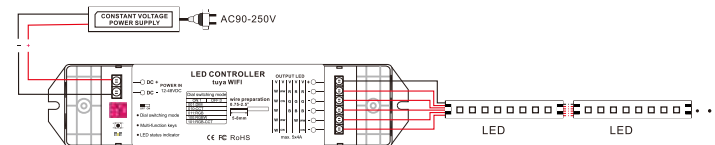4.Use for RGBW :
Set the DIP switch on the controller to 100

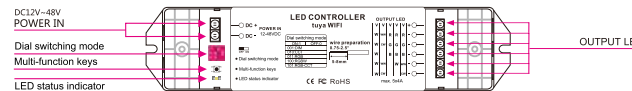5.Use for RGB_CCT :
Set the DIP switch on the controller to 101

8. Warnings

1. When using the countdown function，if the power is accidentally cut off, the countdown function will fail after the power is restarted, the light state will return to the state it was in when the power cut off. If you power on again before the timer has not expired, it will not be affected by the power outage. If the power is restored after the timer expires, the light will return to the state before the power off, and the timing function will be affected by the network. If the power is restored but the controller is not connected to the network, the timing function still fails.
2. In the music mode, if the power is accidentally cut off and power-on again, the light changes to low-brightness red. If the controller has not been connected to the network, the light is always low-brightness red. Note: the APP needs to be in the running state, and the APP microphone permission needs to be turned on.
3. If there are multiple TY5 controllers connected to the control, you can add each controller to the Tuya APP, then enter the operation page of one of the controllers to edit, click Create Group, add the device to be added to the group, and click Save. At this time, a device named "xxxx group" is added to the home page, and when entering this device, you can operate all the devices in the group at the same time.
4. If you want to share a device or device group with others, click Edit on the operation interface, and then click Share the device.
5. The controller does not support 5G band WIFI, and don't hide the router.
6. For color temperature fade effect, only RGB_CCT and CCT LED strips are supported.

9. Operating instructions

Wiring instructions：

DC12V~48V
POWER IN

Dial switching mode

Multi-function keys

LED status indicator

OUTPUT LED

10. After- Sales

From the day you purchase our products within 3 years, if being used properly in accordance with the instruction, and quality problems occur, we provide free repair or replacement services except the following cases:
1. Any defects caused by wrong operations.
2. Any damages caused by inappropriate power supply or abnormal voltage.
3. Any damages caused by unauthorized removal, maintenance, modifying circuit, incorrect connections and replacing chips.
4. Any damages due to transportation, breaking, flooded water after the purchase.
5. Any damages caused by earthquake, fire, flood, lightning strike etc. force majeure of natural disasters.
6. Any damages caused by negligence, inappropriate storing at high temperature and humidity environment or near harmful chemicals.

11. Kindly Reminder

Power Source Selection:
Power source must be DC constant voltage type of power supply. Due to the efficient output in some power supplies are only 80% of total, so please select at least 20% higher output power supply than the consumption of LED lights.