Manual Instruction
SPI RGB LED Controller(WIFI+2.4G)
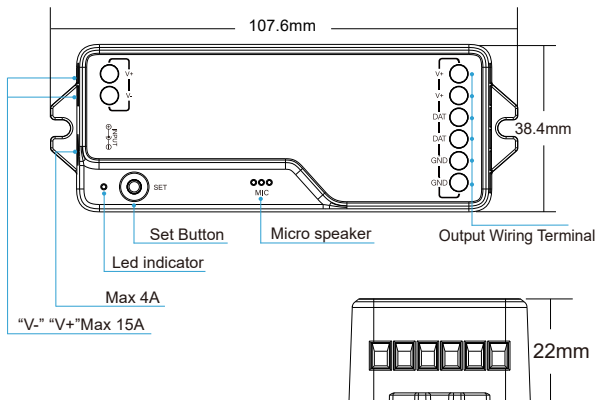
1.Product feature

● WiFi Wireless Control, Bluetooth Wireless Control and 2.4G RF Wireless Remote Control

● WIFI and Bluetooth wireless technology can greatly improve the distribution network experience. If router is disconnected, you can open bluetooth to control the device at the short distance.

● App with multiple control options such as dimming ,remote control, group control, scene customization ,timing ,music rhythm ,tap to run, automation and do not disturb, etc.

● Voice control by Amazon Alexa、Google Assistant、Yandex Alice Tmall Genie and Baidu Xiao du Xiao mi Xiao ai

● Support normal single-wire RZ RGB LED driver IC, support color calibration and numbers of IC setting on the APP, to increase the compatibility of many kinds of LED strip.

● Built-in multiple music effects, Supports the music collection mode of mobile phone microphone and onboard microphone.

● Rich Dynamic modes, support dynamic modes customization.

● Variety of ON/OFF animation effects

● Support color adjustment segmentation ,Full color spray painting , segment painting, eraser segment painting,

● 2.4G RF wireless signal auto-transmission technology,the remote control distance has no limitless.

● Support reverse polarity protection
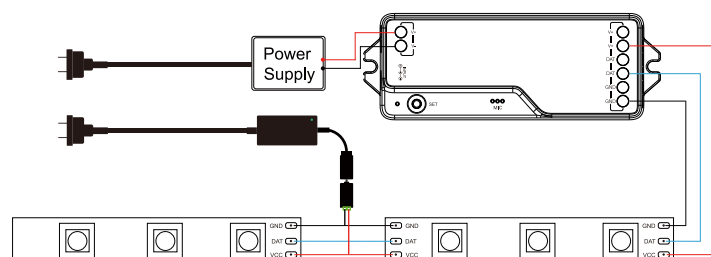
● V0 anti-fire PC case.

2.Technical parameters

Model Parameters	DR03W	DR04W	DR05W
Product type	RGB	RGBW	RGBCCT
IC qty	720	700	450
Output Signal	5V SPI Signal		
Working Temperature	-25~55℃		
Input	Voltage：5-24DC,Current:wiring terminal Max 12A, DC Working input socket Max 4A		

3.Product structure and size

107.6mm
38.4mm
22mm
Set Button
Micro speaker
Led indicator
Output Wiring Terminal
Max 4A
"V-" "V+"Max 15A
SET
MIC

4.Wiring Drawing

Power Supply
SET
GND DAT VCC
GND DAT VCC
GND DAT VCC

⚠ Attention:

1.Power Supply V+,Signal, DAT,Power Supply V- are all designed with 2 channel output, the 2 channel 's signal are exactly same, which allows to connect multiple strips at the same time.

2.The LED strip wiring should be correct, otherwise it may damage the strip and controller.

5.Product Function

5.1.Go to the link/unlink mode

Link to remote:

1. Short press "SET" button once, when the indicator light always ON, press the remote Zone ON button 3 times within 5 seconds, the lights will blink 3 times slowly,means linking successfull.

2. Power OFF the controller for 10 seconds(make sure the controller is no power completely), then Power ON again, when the lights ON, press the remote Zone ONbutton 3 times, the lights will blink 3 times slowly, means linking successfully.

Unlink to remote:

1. Short press "SET" button once, when the indicator light always ON, press the remote Zone ON button 5 times within 5 seconds, the lights will blink 10 times quickly, means unlinking successfully.

2.Power OFF the controller for 10 seconds(make sure the controller is no powercompletely), then Power ON again, when the lights ON, press the remote Zone ON button 5 times, the lights will blink 10 times quickly, means unlinking successfull.

5.2 Link to APP

Function	Connection Way	The states of Pilot lamp and strip
Reset network, link to app mode	1.Long press "SET"button over 3s,indicator light blinks means network reset successfully,the device will go into link mode.	The indicator light flashes, and the LED strip is unchanged.
	Switch ON/OFF 3 times(ON-OFF-ON-OFF-ON), light blink 3 times means network reset successfully. Attention: Every time turn on the switch, please turn off power immediately after theindicator light on,If the power is discharged more than 4s,network reset will be unsuccessfully.	Indicator light flashes ,and strips flash 3 times.
	1.Power off the controller for 10s（Make sure the controller is completely powered off），press and hold "ON" Button on the remote ,then power on the controller,if the light blink 3 times means reset successfully.	

5.3 APP control

1.Follow the below step to install smart life app or tuya app on your smart phone

Download and install **[Smart Life]** APP or **[Tuya Smart]** APP
Search for [Smart Life] in Apple orGoogle store or scan following QR code to download and install the app.
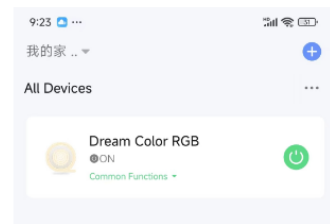
Please click " Register " button to create account while using it in the first time Log in directly if you already had account..
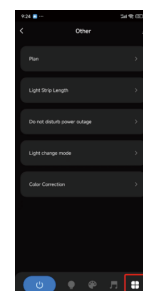

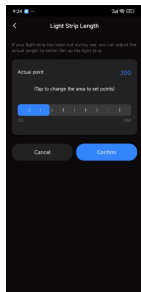2.Follow the above steps to make controller paired

3.Add device

(1)Long press the "SET" button on the controller over 3s,when indicator starts blinking,means controller enter the link mode.

(2)Login in Tuya app,click"+" button on the top right corner to add new device, fill WIFI account and password, click "confirm" and waiting for controller link to app.

(3)When linking is successful, you will see below pciture：

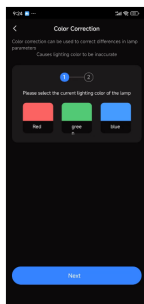(4)Click the icon of the linked device to enter home page, click " ▦ "icon to go to below interface

(5)Set up the length of the LED strip by clicking on "**Light strip length**" to access the interface below.

Set the actual controlled length of the LED strip. Adjustable range: RGB: 20-720pcs IC, RGBW: 20-700pcs IC, RGBCCT: 20-450pcs IC (as shown above). Once set, click "confirm" to save.
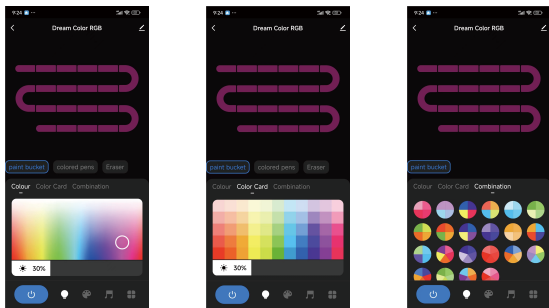
(6)Led strip color correction: click on "**color correction**" to access the color calibration interface shown in the picture below.

Please select the corresponding color in the above interface based on the current color of the strip, and then click "Next" when the setting is complete.
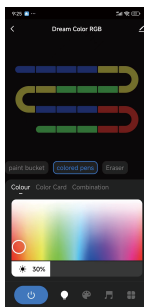**Note:** The fifth (5) and sixth (6) steps must be set up during the first use.
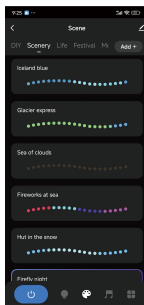
(7)Click " 💡 "icon to go to the below interface.

Select "**paint buchket**" mode, there are 3 color patterns for selections: "**colour**", "**Color card**", "**Combination**"

(8)Select the "**Colored pens**" mode to apply any color you like to paint the strips. The strips will display the color according to your painting, as shown in the picture below.
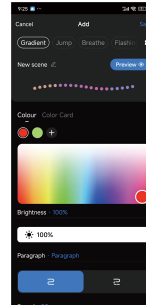

You could also select"**Eraser**" to wipe off the color for any part of strip(The erased part will not light up)
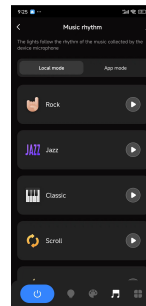
(9)Select" 🎛 "icon to go to the below interface, there are variety of animation effects for selections
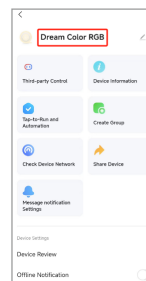

(10)Click on the upper left corner 'DIY' button to customize your favorite animation effect, as shown in the picture below.

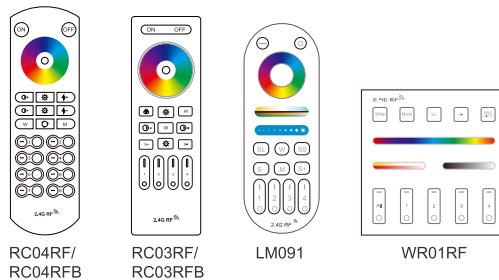(11)Click" 🎵 "icon to go to the music rhythm function,there are 2 types for selections "Local mode"and "APP mode"

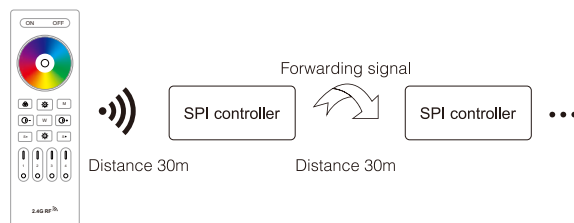(12)Click top right corner " ✎ "to go to the below interface

You can edit device name,set up voice control,tap to run,group control and device sharing functions etc.

6. Compatible Remote Controller(Need purchased separately)

RC04RF/ RC04RFB   RC03RF/ RC03RFB   LM091   WR01RF

7.Signal Transmitting

Controller can transfer the signal from remote to another controller within 30m,as long as there is a controller within 30m, control distance can be limitless.

Forwarding signal

SPI controller   SPI controller

Distance 30m   Distance 30m

8.Bluetooth control instructions

When the routeris disconnected, you can turn on the Bluetooth ofyour smartphone and connect directly controlled device at a shortdistance

Switching Bluetooth control steps:

(1) Complete the network distribution of the equipment.
(2) Power off the router used for network configuration, turn off WiFi on the mobile phone, turn on Bluetooth,1 minute later, reopen the APP,it can control the device by Bluetooth automatically.

⚠️ Attention:

Please turn off power to ensure safety while installing the device.Do not place the product nearby highly flammable or explosive materials.Please check whether the input voltage is in accordance with the device.Please do not use the device in the place with widely range metal area or strong electromagnetic wave nearby,otherwise the remote distance will be seriously affected.