# *Product Specifications*

**Name: 2.4G Single Color Controller**
**Model: RF203**


## Summarization

2.4G controller is newly introduced wireless high-power LED controller of our company. It equips with touch remote control, touch remote control adopts high precision capacitance touch control technology, you can select the color you need by one button. It is convenient and easy. Each controller has a globally unique address code, in order to prevent confusion caused by controlling repeated address code. Each controller can be equipped with four remote controls, can achieve multiple controllers synchronization control. It is used for controlling a variety of lamp whose source of light is LED. For instance, point source of light, flexible light strip, wall washer lamp, glass wall light etc. It has many advantages such as convenient to connect, easy to use and others. It can achieve single control and group control, easy for user to use.

## Technical Parameters

### Controller

working temperature: -20-60℃
supply voltage: DC5V-24V
output: 1 channels
connection mode: common anode
external dimension: L120ⅩW62ⅩH27mm
packing size: L185ⅩW145ⅩH52 mm
net weight: 220g
gross weight: 314g
static power consumption: <1W
output current: <16A
output power: 12V:<192W, 24V:<384W

### Touch Remote Control

working temperature: -20-60℃
power supply mode: AAA * 3
supply voltage: 1.5V * 3

transmission frequency: 2.4Ghz
standby power consumption: 0.015mW
standby current: 60uA
working current: 200uA
emission current: 10mA
remote distance: about 30m
standby time: 6 months
remote control weight: 94g

## External Dimension (mm)

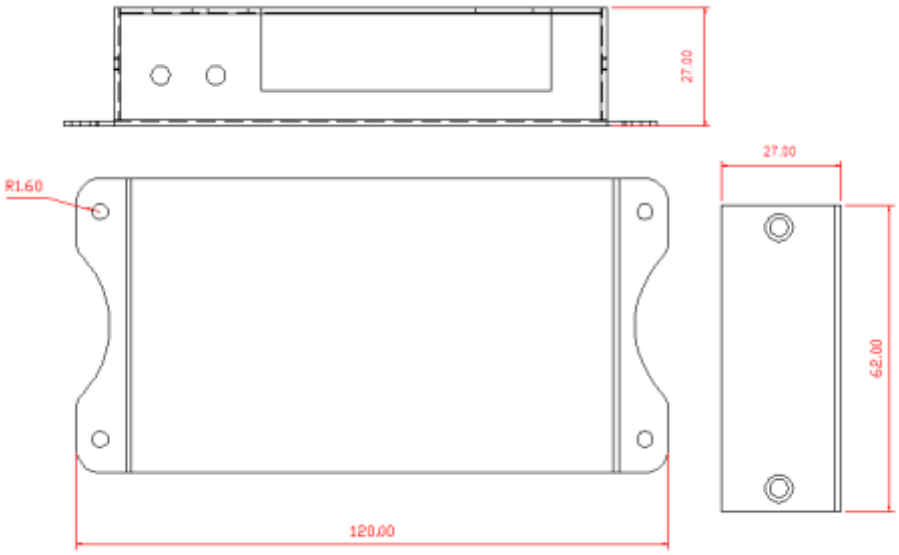


Figure 1

## Controller Instruction for Use


Figure 2

1. Antenna: 2.4G remote control signal receiving antenna;
2. Function: on/off and mode key, long press the button, you can turn on/off the output of controller, short press the button, you can switch the mode;
3. Match: match code key, refer to 4 for use methods; clear code, in the process of using controller, if you no longer want to use the remote control that already code, then you can achive it by clearing code, methods of operation: controller is powered off, press and hold “Match” key, then power on, test it with remote control, if you could not control with the remote control, indicates the operation is successful, otherwise repeat this operation.
4. DIP: as shown in Figure 3. It is used for matching four groups of address codes of the controller.

Figure 3

5. Power: power indicator, it lights when connected with external power supply;
6. Signal: RF signal indicator, it flashes when receiving correct remote control signal;
7. Input/ Output interface: the controller power supply input and load output port, please refer to Figure 4 and Table 1 for detailed description.

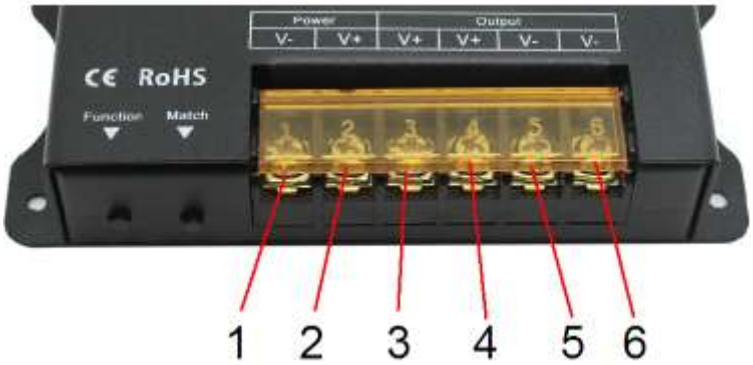


Figure 4

| No. | Name | Type | Description |
|---|---|---|---|
| 1 | V- | Input | The negative power supply |
| 2 | V+ | Input | The positive power supply |
| 3 | V+ | Output | Positive of output |
| 4 | V+ | Output | Positive of output |
| 5 | CW | Output | Negative of output |
| 6 | WW | Output | Negative of output |

Table 1

## Remote Control Direction for use

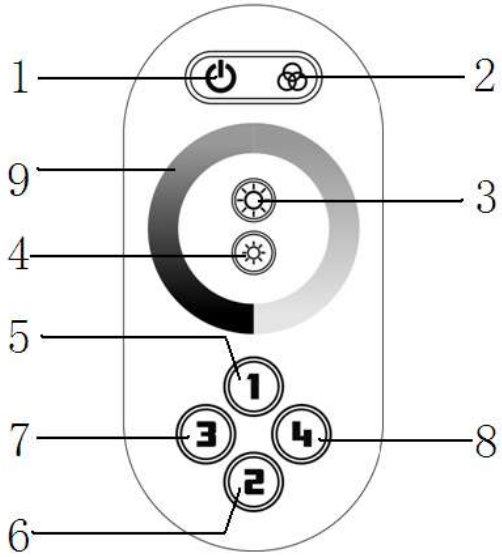


Figure 5

1. on/off key 2. group control 3. brightness+ 4. brightness-
5. group 1 6. group 2 7. group 3 8. group 4 9. brightness adjustment ring

1. Match the code of remote control

The controller can be controlled simultaneously by four remote controls, firstly, you need to match the controller with remote control. When matching code, you need to use “match” with “DIP”. In the working process of controller, if the first dial is “on” (Figure 6), press the “Match” key, and then press on/off key on remote control, if the indicator “Signal” flashes, that means the address code is matched successfully, other three groups is the same. In the process of using, it can be used for group control, if all dials are “off”, it can only used for global control.

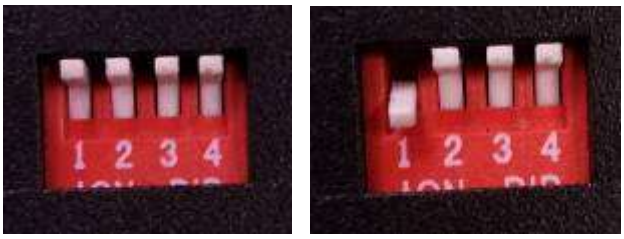


Figure 6

2. Operating Instructions

There are 64 touch keys (points) on the panel of touch remote control, the function of each key is as below:

(1) on/off key: you can turn on/off controller output at any state;
(2) group control, selecting all controllers that address code is matched with the remote control, then it can achieve overall control of all controllers;
(3) brightness increase key, overall brightness increase, every time you press this button, the brightness series add 1, total 10 levels;
(4) brightness reduce key, overall brightness reduce, every time you press this button, the brightness series minus 1, total 10 levels;
(5) group 1: selecting all controllers that address code is matched with the remote control and group address is 1, achieve overall control of all controllers;
(6) group 2: selecting all controllers that address code is matched with the remote control and group address is 2, achieve overall control of all controllers;
(7) group 3: selecting all controllers that address code is matched with the remote control and group

address is 3, achieve overall control of all controllers;

(8) group 4: selecting all controllers that address code is matched with the remote control and group address is 4, achieve overall control of all controllers;

(9) brightness adjustment ring, it is used for adjusting brightness;

3. Power supply management

Stop to use the remote more than 15-20s, the remote control will enter the standby state automatically, to extend the battery life. Color ring can not be used at this time, The next time use, first touch key wake up the remote control, then the remote will come back to the normal working state.

4. Operating Instructions of Function key

This key has two functions, long press the button, you can turn on/off the output of controller, short press the button, you can switch the mode;

Button mode table:

| No. | Brightness | Remarks |
|---|---|---|
| 1 | 100% | Brightness is adjustable |
| 2 | 90% | |
| 3 | 80% | |
| 4 | 70% | |
| 5 | 60% | |
| 6 | 50% | |
| 7 | 40% | |
| 8 | 30% | |
| 9 | 20% | |
| 10 | 10% | |

Table 2

## Typical Application

As shown in Figure 6: DIP switch is used for group control. The series controller has a four-digit dial, you can devide the controller into four groups and control them. It can carry out single control and overall control using remote control.

As shown in Figure 8: there are four controllers, set them respectively as group 1, group 2, group 3, group 4. It can carry out group control and overall control with a remote control. You should operate in accordance with the following steps:

Step 1: matching code

You need to match code before using controller, otherwise you can not remote control. Please refer to “the fourth step in Controller Instructions for Use”.

Step 2: group control of controllers

Controller DIP No. 1-4, if “1” is on, the controller belongs to the first group, and if “2” is on, the controller belongs to the second group, and so forth. If more than one is one at the same time, the small number is effective.


Figure 7

Step 3: remote control

For the function of remote control, please refer to “Remote control direction for use”.

Group 1 control: firstly press “5” key on the remote control, and then you can control the first group, the control is invalid to other groups. If you want to control group 2, you need to press “6”, and other groups are the same. If you want to achieve overall control, you need to press “2” key, overall control button, and then you can achieve overall control.

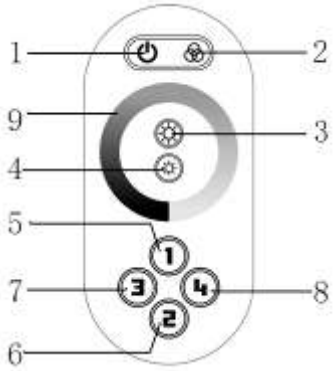


Figure 8

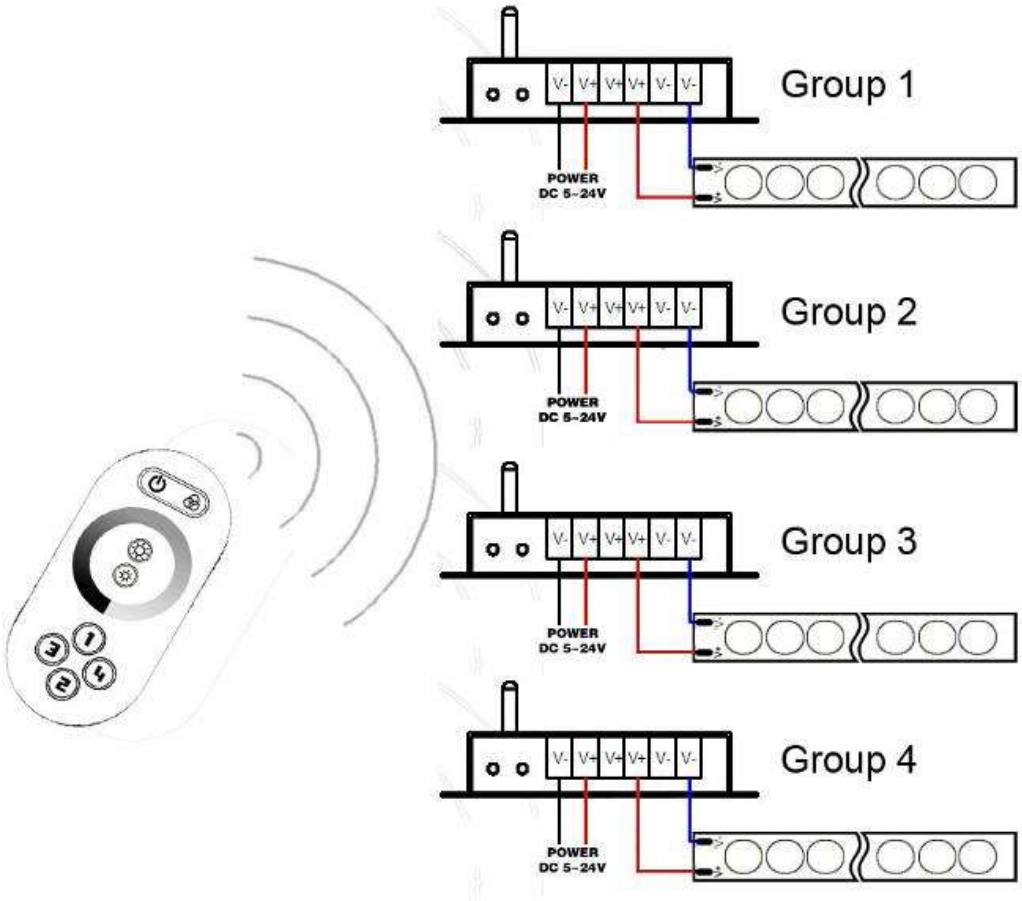


Figure 9

**Remarks:**

1. Connect the load wire at first, following by the power wire; **Please ensure short circuit can not occur between connecting wire before you turn on the power**;
2. Power supply voltage range is DC5~24V, more than voltage range maybe burn out the controller.
3. When not use touch remote control for long time, we suggest you to take down the batteries.