# VB3

## 3-Button RF RGB LED Controller

- RF 3 channel constant voltage RGB LED controller.
- 3-button operation, support on/off light, adjust brightness, color, dynamic mode and dynamic speed.
- Match with RF 2.4G single zone or multiple zone RGB remote control optional.
- 4096 levels dimming smoothly without any flash.
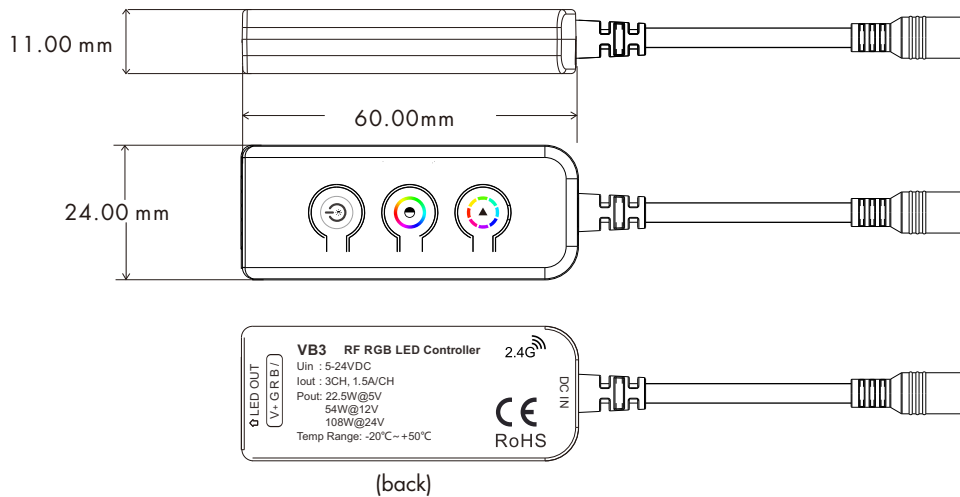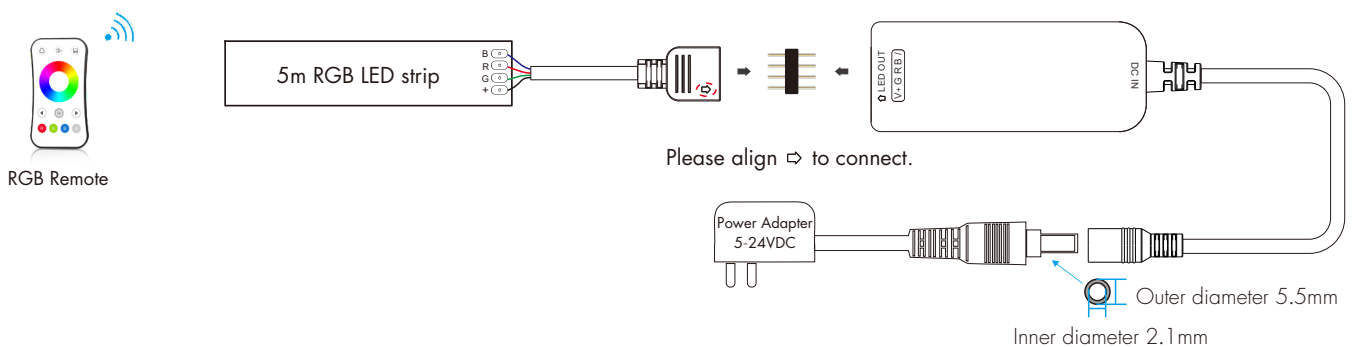- Built-in 10 dynamic modes, including jump and fade.

CE  RoHS

## Technical Parameters

| Input and Output | | Dimming data | | Safety and EMC | |
|---|---|---|---|---|---|
| Input voltage | 5-24VDC | Input signal | RF 2.4GHz + 3-button | EMC standard | EN IEC 55015 EN IEC 61547 ETSI EN 301 489-1/-3 |
| Output voltage | 5-24VDC | Control distance | 30m(Barrier-free space) | | |
| Output current | 3CH, 1.5A/CH | Dimming gray scale | 4096 (2^12) levels | Safety standard | EN 61347-1/-2 |
| Output power | 22.5W@5V 54W@12V 108W@24V | Dimming range | 1 - 100% | Radio equipment | ETSI EN 300 440 |
| | | Dimming curve | Logarithmic | Certification | CE RoHs |
| Environment | | PWM frequency | 2KHz (default) | Package | |
| Operation temperature | Ta: -20℃ ~ +50℃ | Warranty | 5 years | Size | L80xW45xH30mm |
| Case temperature (Max.) | Tc: +85℃ | Protection | Reverse polarity | Gross weight | 0.039kg |

## Mechanical Structures and Installations

11.00 mm

60.00mm

24.00 mm

**VB3**    **RF RGB LED Controller**    2.4G
Uin : 5-24VDC
Iout : 3CH, 1.5A/CH
Pout: 22.5W@5V
         54W@12V
         108W@24V
Temp Range: -20℃~ +50℃
LED OUT (V+ G R B /)
DC IN
CE RoHS

(back)

## Wiring Diagram



RGB Remote

5m RGB LED strip

B
R
G
+

Please align ⇨ to connect.

LED OUT (V+ G R B /)

DC IN

Power Adapter
5-24VDC

Outer diameter 5.5mm

Inner diameter 2.1mm

## Button Function

⊙ : Turn on or off light, long press 1-6s to continuously adjust the brightness.

◉ : Short press to switch 24 static RGB colors in sequence.
long press for 1-6s, adjust the color saturation continuously,
i.e., transition the current static color to white.

▶ : Short press to switch 10 dynamic modes,
press and hold for 2s to sequentially switch 10 levels of dynamic change speed.

## Dynamic mode list :

| No. | Name | No. | Name |
|-----|------|-----|------|
| 1 | RGB jump | 6 | RGB fade in and out |
| 2 | RGB smooth | 7 | Red fade in and out |
| 3 | 6 color jump | 8 | Green fade in and out |
| 4 | 6 color smooth | 9 | Blue fade in and out |
| 5 | Yellow cyan purple smooth | 10 | White fade in and out |

Note:

1. Press and hold the ⊙ and ▶ button for 2s, the output LED blinks 3 times, switch 0.5s and 3s on/off fade time.

2. Press and hold the ⊙, ◉ and ▶ button for 2s, the output LED blinks several times, switch 'GRB' (blinks 1 time),
'RGB' (blinks 2 times), 'BRG' (blinks 3 times) and 'BGR '(blinks 4 times) output sequence.

3. Press and hold the ◉ and ▶ button for 10s, the output LED blinks 2 times, to restore factory settings, factory default parameters:
100% brightness, level 7 speed, 0.5s on/off fade, GRB sequence.

## Match with RF Remote Controller

There are two ways to match/delete:

Use ◉ and ▶ button

Match:
Press and hold ◉ and ▶ button for 2s,
immediately press on/off key (single zone remote)
or zone key (multiple zone remote) of the remote.
The output LED blinks 3 times means match is successful.

Delete:
Press and hold ◉ and ▶ button for 5s,
The output LED blinks 5 times means all matched remotes were deleted.

Use Power Restart

Match:
Switch off the power, then switch on power, repeat again.
Immediately short press on/off key (single zone remote)
or zone key (multiple zone remote) 3 times on the remote.
The output LED blinks 3 times means match is successful.

Delete:
Switch off the power, then switch on power, repeat again.
Immediately short press on/off key (single zone remote)
or zone key (multiple zone remote) 5 times on the remote.
The output LED blinks 5 times means all matched remotes were deleted.

## Dimming Curve