# RGBW/RGB/CCT/Dimming 4 Channel LED RF Controller

## Model No.: V4-X

4 Channels/Step-less dimming/Wireless remote control/Auto-transmitting/Synchronize/Multiple protection

## Features

- 4 channel PWM constant voltage output, Max 8A per channel.
- Match with Skydance's 2.4G single zone or multiple zone single color, dual color and RGB/RGBW remote control.
- One RF controller accept up to 10 remote control.
- 4096 levels 0-100% dimming smoothly without any flash.
- When using with RGB/RGBW light, built in 10 dynamic mode, include jump or gradual change style.
- Auto-transmitting function: Controller automatically transmit signal to another controller with 15m control distance.
- Synchronize on multiple number of controllers.
- Over-load / Short circuit protection, recover automatically.

FC C CE RoHS emc LVD RED

## Technical Parameters

### Input and Output

| Input and Output | |
|---|---|
| Input voltage | 12-48VDC |
| Input current | 32.5A@12/24V<br>20.5A@36/48V |
| Output voltage | 4 x (12-48)VDC |
| Output current | 4x8A@12/24V<br>4x5A@36/48V |
| Output power | 4x96W@12V<br>4x192W@24V<br>4x180W@36V<br>4x240W@48V |
| Output type | Constant voltage |

### Dimming data

| Dimming data | |
|---|---|
| Input signal | RF 2.4GHz |
| Control distance | 15m(Barrier-free space) |
| Dimming gray scale | 4096 (2^12) levels |
| Dimming range | 0-100% |
| Dimming curve | Logarithmic |
| PWM Frequency | 500Hz (default) |

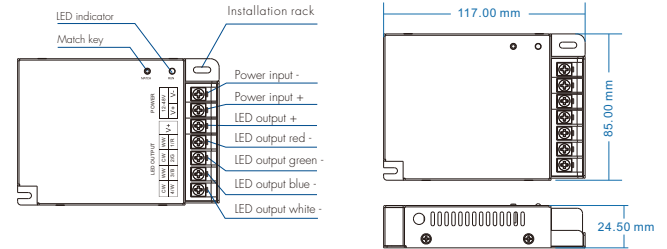### Safety and EMC

| Safety and EMC | |
|---|---|
| EMC standard (EMC) | EN301 489,EN 62479 |
| Safety standard(LVD) | EN60950 |
| Radio Equipment(RED) | EN300 328 |
| Certification | CE,EMC,LVD,RED |

### Environment

| Environment | |
|---|---|
| Operation temperature | Ta: -30°C ~ +55°C |
| Case temperature (Max.) | Tc: +85°C |
| IP rating | IP20 |

### Warranty and Protection

| Warranty and Protection | |
|---|---|
| Warranty | 5 years |
| Protection | Reverse Polarity<br>Over-load<br>Short circuit |

### Weight

| Weight | |
|---|---|
| Net weight | 0.284kg |
| Gross weight | 0.304kg |

## Mechanical Structures and Installations



- LED indicator
- Match key
- Installation rack
- Power input -
- Power input +
- LED output +
- LED output red -
- LED output green -
- LED output blue -
- LED output white -
- 117.00 mm
- 85.00 mm
- 24.50 mm

## Wiring Diagram

● V4-X for RGB/RGBW



RGB remote

Power Supply 12-48VDC Constant Voltage

AC100-240V

RGBW LED strip
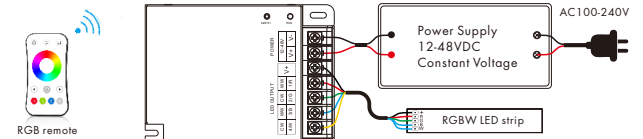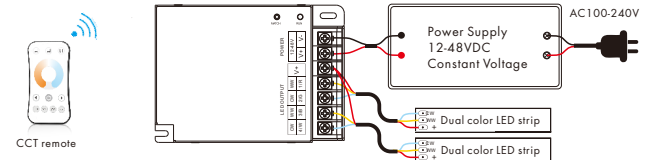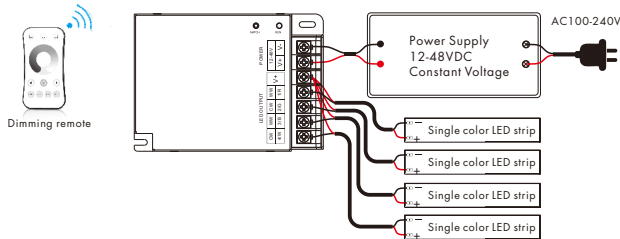
Note: If connect with RGB LED strip, please long press match key for 15s, the controller will become RGB type.

● V4-X for dual color



CCT remote

Power Supply 12-48VDC Constant Voltage

AC100-240V

Dual color LED strip

Dual color LED strip

● V4-X for single color



Dimming remote

Power Supply
12-48VDC
Constant Voltage

AC100-240V

Single color LED strip

Single color LED strip

Single color LED strip

Single color LED strip

## Match Remote Control (two match ways)

End user can choose the suitable match/delete ways. Two options are offered for selection:

### Use the controller's Match key

Match:
Short press match key, immediately press on/off key (single zone remote) or zone key (multiple zone remote) on the remote.
The LED indicator fast flash a few times means match is successful.

Delete:
Press and hold match key for 5s to delete all match,
The LED indicator fast flash a few times means all matched remotes were deleted.

### Use Power Restart

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

Delete:
Switch off the power, then switch on power again,
immediately short press on/off key (single zone remote)
or zone key (multiple zone remote) 5 times on the remote.
The light blinks 5 times means all matched remotes were deleted.
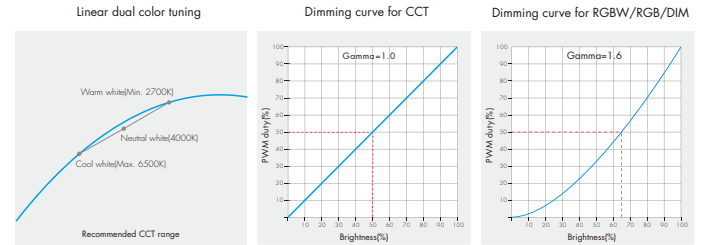
## RGB/RGBW Dynamic mode list

| 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 |

## Dual color control

CH1,CH3=Warm white LED
CH2,CH4=Cool white LED
Each channel can supply up to 192W(@24V) and white balance can be controlled as such:

| Color temperature | Cool white | Neutral white | Warm white |
|---|---|---|---|
| Power distribution | CH1=0W,CH2=192W<br>CH3=0W,CH4=192W | CH1=96W,CH2=96W<br>CH3=96W,CH4=96W | CH1=192W,CH2=0W<br>CH3=192W,CH4=0W |



Linear dual color tuning

Warm white(Min. 2700K)

Neutral white(4000K)

Cool white(Max. 6500K)

Recommended CCT range

Dimming curve for CCT

Gamma=1.0

Dimming curve for RGBW/RGB/DIM

Gamma=1.6

## Malfunctions analysis & troubleshooting

| Malfunctions | Causes | Troubleshooting |
|---|---|---|
| No light | 1. No power.<br>2. Wrong connection or insecure. | 1. Check the power.<br>2. Check the connection. |
| Wrong color | 1. Wrong connection of R/G/B/W wires. | 1. Reconnect R/G/B/W wires. |
| Uneven intensity between front and rear,with voltage drop | 1. Output cable is too long.<br>2. Wire diameter is too small.<br>3. Overload beyond power supply capability.<br>4. Overload beyond controller capability. | 1. Reduce cable or loop supply.<br>2. Change wider wire.<br>3. Replace higher power supply.<br>4. Add power repeater. |
| No response from the remote | 1. The battery has no power.<br>2. Beyond controllable distance.<br>3. The controller did not match the remote. | 1. Replace battery.<br>2. Reduce remote distance.<br>3. Re-match the remote. |