

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

Model No.: VP

4 Channels/DC power socket input/Step-less dimming/Wireless remote control/Auto-transmitting/Synchronize



FC CE RoHS LVD RED

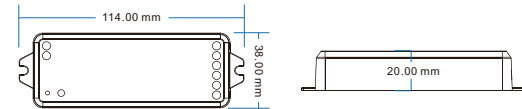
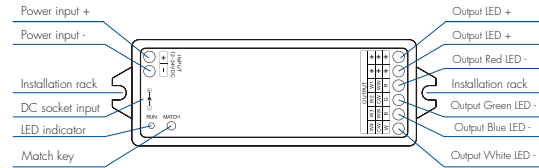
## Features

- DC power socket input and 4 channel constant voltage output.
- 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 30m control distance.
- Synchronize on multiple number of controllers.

## Technical Parameters

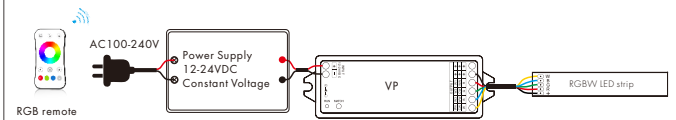
Input and Output		Safety and EMC	
Input voltage	12-24VDC	EMC standard (EMC)	EN301 489,EN 62479
Input current	15.5A	Safety standard(LVD)	EN60950
Output voltage	4 x (12-24)VDC	Radio Equipment(RED)	EN300 328
Output current	4CH,4A/CH,Max 6A	Certification	CE,EMC,LVD,RED
Output power	4 x (48-96)W	Environment	
Output type	Constant voltage	Operation temperature	Ta: -30°C ~ +55°C
		Case temperature (Max.)	Tc: +85°C
		IP rating	IP20
Dimming data		Warranty and Protection	
Input signal	RF 2.4GHz	Warranty	5 years
Control distance	30m(Barrier-free space)	Protection	Reverse polarity Short circuit
Dimming gray scale	4096 (2^12) levels		
Dimming range	0-100%		
Dimming curve	Logarithmic		
PWM Frequency	750Hz (default)		

## Mechanical Structures and Installations



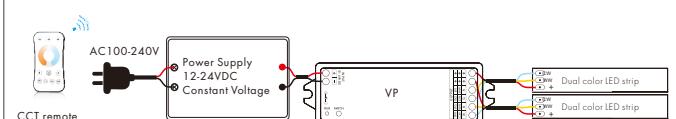
## Wiring Diagram

### VP for RGB/RGBW

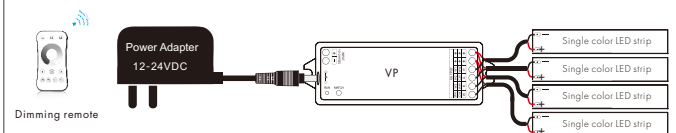


Note: If connect with RGB LED strip, please long press match key for 1.5s, the controller will become RGB type.

### VP for dual color



### VP for single color



Note: User can connect constant voltage power supply or power adapter as power input.

## 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.

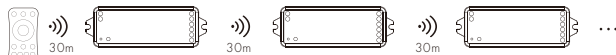
The light blinks 3 times means match is successful.

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.

## Application notes

### 1. All the receivers in the same zone.



RF remote

**Auto-transmitting:** One receiver can transmit the signals from the remote to another receiver within 30m, as long as there is a receiver within 30m, the remote control distance can be limitless.

**Auto-synchronization:** Multiple receivers within 30m distance can work synchronously when they are controlled by the same remote, under same dynamic mode and with same speed.

Receiver placement may offer up to 30m communication distance. Metals and other metal materials will reduce the range.

Strong signal sources such as WiFi routers and microwave ovens will affect the range.

We recommend for indoor applications that receiver placements should be no further apart than 15m.

### 2. Each receiver(one or more) in a different zone, like zone 1, 2, 3 or 4.



## 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

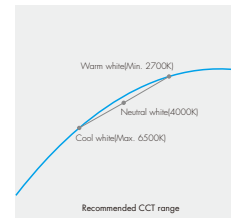
CH1, CH3=Warm white LED

CH2, CH4=Cool white LED

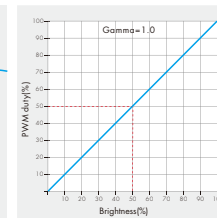
Each channel can supply up to 96W(@24V) and white balance can be controlled as such:

Color temperature	Cool white	Neutral white	Warm white
Power distribution	CH1=0W,CH2=96W CH3=0W,CH4=96W	CH1=48W,CH2=48W CH3=48W,CH4=48W	CH1=96W,CH2=0W CH3=96W,CH4=0W

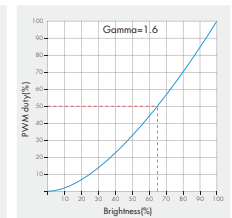
Linear dual color tuning



Dimming curve for CCT



Dimming curve for RGBW/RGB/DIM



## Malfunctions analysis & troubleshooting

Malfunctions	Causes	Troubleshooting
No light	1. No power. 2. Wrong connection or insecure.	1. Check the power. 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. 2. Wire diameter is too small. 3. Overload beyond power supply capability. 4. Overload beyond controller capability.	1. Reduce cable or loop supply. 2. Change wider wire. 3. Replace higher power supply. 4. Add power repeater.
No response from the remote	1. The battery has no power. 2. Beyond controllable distance. 3. The controller did not match the remote.	1. Replace battery. 2. Reduce remote distance. 3. Rematch the remote.