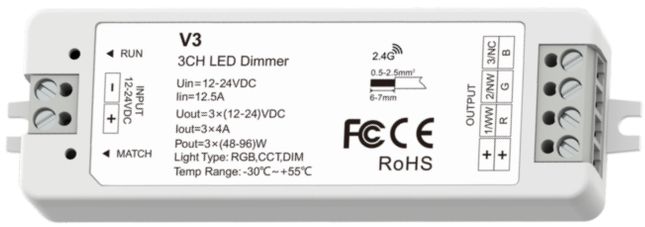
V3

RF RGB

RGB/CCT/Dimming 3 Channel LED RF Controller

- Match with RF 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 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.
- Light on/off fade time 3s selectable.



FC CE RoHS

3 Channels / Step-less dimming / Wireless remote control / Auto-transmitting / Synchronize

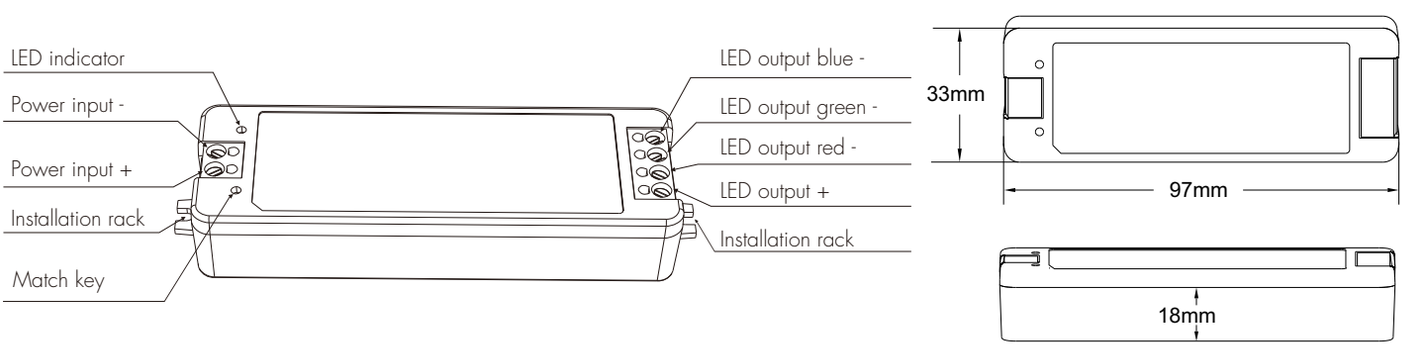
Technical Parameters

Input and Output	
Input voltage	12-24VDC
Input current	12.5A
Output voltage	3 x (12-24)VDC
Output current	3CH,4A/CH
Output power	144-288W(12-24V)
Output type	Constant voltage
Warranty and Protection	
Warranty	5 years
Protection	Reverse polarity, Short circuit

Dimming data	
Input signal	RF 2.4GHz
Control distance	30m(Barrier-free space)
Dimming gray scale	4096 (2^12) levels
Dimming range	0 -100%
Dimming curve	Logarithmic
PWM frequency	1000Hz (default)
Environment	
Operation temperature	Ta: -30°C ~ +55°C
Case temperature (Max.)	Tc: +85°C

Safety and EMC	
EMC standard	EN IEC 55015/EN IEC 61547 ETSI EN 301 489-1/-3
Safety standard	EN 61347-1/-2
Radio Equipment	ETSI EN 300 440
Certification	CE RoHS FCC
Package	
Size	L114 x W38 x H26mm
Gross weight	0.049kg

Mechanical Structures and Installations



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 of the receiver, 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 light blinks 3 times means match is successful.

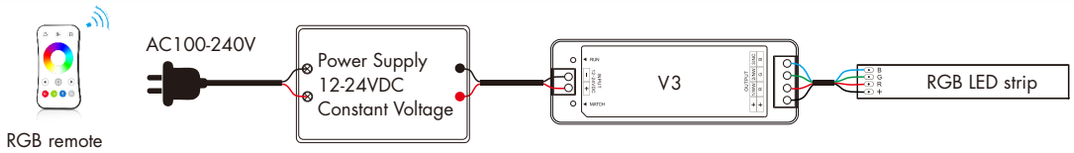
Delete:
Switch off the power of the receiver, then switch on power, repeat again.
Immediately short press on/off key (single zone remote)
or zone key (multiple zone remote) 5 times on the remote.
The light blinks 5 times means all matched remotes were deleted.

Light On/Off Fade Time

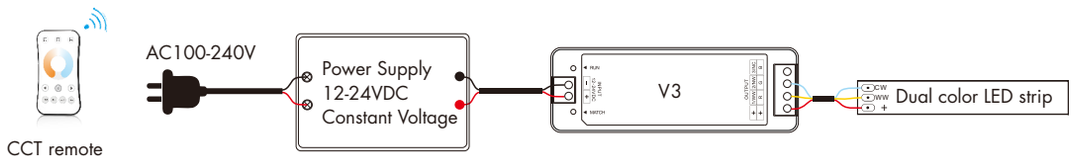
Long press match key 5s, then short press match key 3 times, the light on/off time will be set to 3s, the indicator light blink 3 times.
Long press match key 10s, restore factory default parameter, the light on/off time also restore to 0.5s.

Wiring Diagram

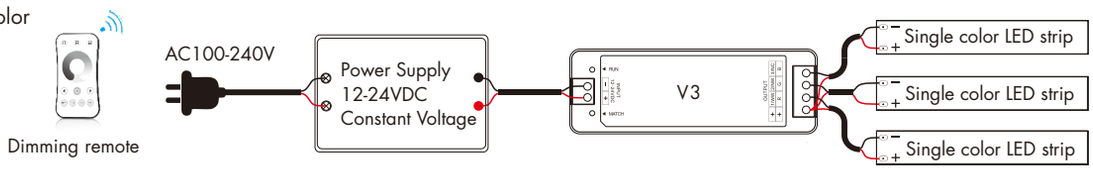
- V3 for RGB



- V3 for dual color

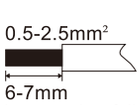


- V3 for single color



Wire Preparation:

1. The wiring can be solid or stranded with a cross-sectional area of 0.5 to 2.5 mm².
   Conventional 1mm² can withstand 10A output current.
2. When wiring is installed, the terminals must be tightened.
   If they are not tightened, the contact point resistance will be too high and the terminals will easily burn due to heat when used at full load for a long time.





Note: The output power of a constant voltage power supply should be at least 1.2 times that of the output load (light strip), otherwise the full power output of the load can easily cause automatic flickering or shaking of the light.

PWM Frequency Setting

At the moment of power-up:
Long press the match key for 2s,
set the output PWM frequency 1KHz, the LED indicator flash 1 time.
Long press the match Key for 5s,
set the output PWM frequency 2KHz, the LED indicator flash 2 times.
Long press the match Key for 10s,
set the output PWM frequency 4KHz, the LED indicator flash 3 times.
Long press the match Key for 15s,
set the output PWM frequency 8KHz, the LED indicator flash 4 times.
The factory default PWM frequency is 1KHz.

Note: Higher PWM frequency, will cause lower output current, higher power noise, but more suitable for camera(No flickers for video).

RGB 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

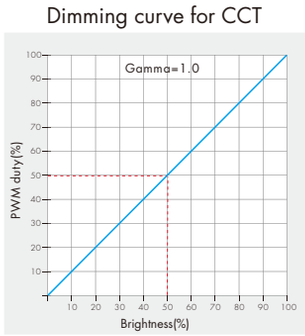
Dual Color Control

CH1=Warm white LED CH2=Cool white LED
Each channel can supply up to 96W(@24V)
and white balance can be controlled as such:

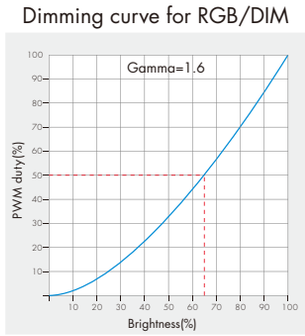
Color temperature	Cool white	Neutral white	Warm white
Power distribution	CH1=0W,CH2=96W	CH1=48W,CH2=48W	CH1=96W,CH2=0W

Dimming Curve

Dimming curve for CCT



Dimming curve for 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 wires.	1. Reconnect R/G/B 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. Re-match the remote.

Installation Precautions

1. The products shall not be stacked, the distance should be ≥ 20cm, so as not to affect lifespan of the products due to poor heat dissipation.
2. The product shall not be installed close to the switching power supply with an interval of ≥ 20cm to avoid radiation interference of the switching power supply.
3. The installation height shall be ≥ 1m from the floor to avoid shortening the remote control distance due to too weak reception signal.
4. The products are not allowed to be close to or covered by metal objects, with an interval of ≥ 20cm to avoid signal attenuation and shorten the remote distance.
5. Avoid installation at the corner of the wall or the corner of the beam, with an interval of ≥ 20cm to avoid signal interference.

FCC Statement:
This device complies wth Part 15 of the FCC Rules.operation is subject to the following two conditions:
(1)this device may not cause harmful interference,and
(2)this device must accept any interference received,including interference that may cause undesired operation.
IC Statement:
This Class B digital apparatus complies with Canadian ICES-003.
(Cet appareil numérique de la Classe B conforme à la norme NMB-003 du Canada).