RGB/CCT/Dimming 3 Channel LED RF Controller

Model No.: V3-X

3 Channels/10A per channel/Step-less dimming/Wireless remote control/Auto-transmitting/Synchronize

FC ℃ CE RoHS emc LVD RED

Features

● 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 15m control distance.
● Synchronize on multiple number of controllers.
● Light on/off fade time 3s selectable.

Technical Parameters

Input and Output

Input and Output	
Input voltage	12-36VDC
Input current	30.5A
Output voltage	3 x (12-36)VDC
Output current	3CH,10A/CH
Output power	360-1080W(12-36V)
Output type	Constant voltage

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

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	1000Hz (default)

Safety and EMC

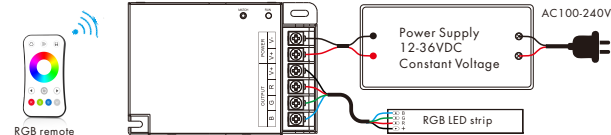| Safety and EMC	
EMC standard (EMC)	ETSI EN 301 489-1 V2.2.3 ETSI EN 301 489-17 V3.2.4
Safety standard(LVD)	EN 62368-1:2020+A11:2020
Radio Equipment(RED)	ETSI EN 300 328 V2.2.2
Certification	CE,EMC,LVD,RED

Weight

Weight	
Net weight	0.240kg
Gross weight	0.259kg

Mechanical Structures and Installations
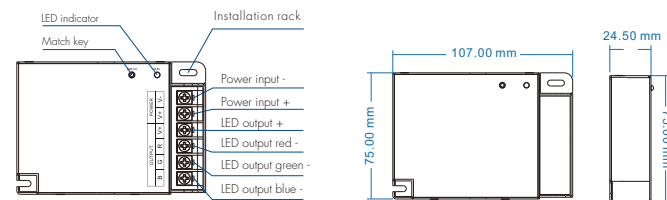
Wiring Diagram

● V3-X for RGB

RGB remote

● V3-X for dual color

CCT remote
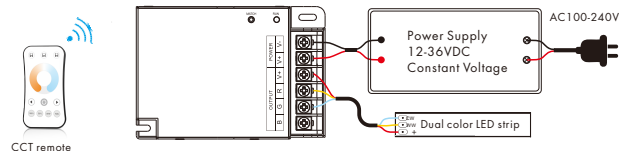
● V3-X for single color

Dimming remote
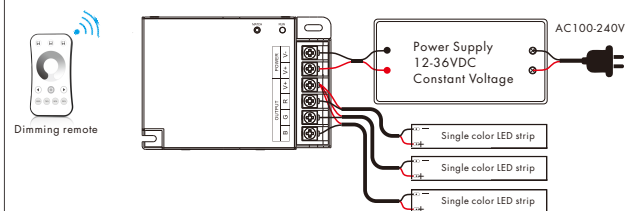
Match Remote Control (two match ways)

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) of 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, 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, 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.
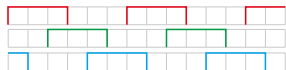
RGB Dynamic mode list

1: RGB jump

6: RGB fade in and out

2: RGB smooth

7: Red fade in and out

3: 6 color jump
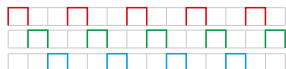
8: Green fade in and out

4: 6 color smooth

9: Blue fade in and out

5: Yellow cyan purple smooth
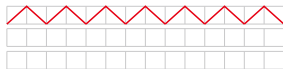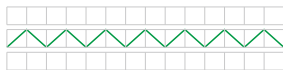
10: White fade in and out
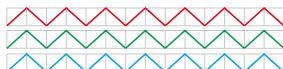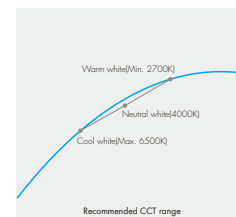
Dual color control
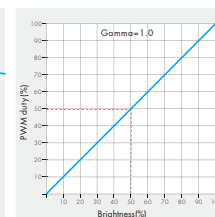
CH1=Warm white LED
CH2=Cool white LED
Each channel can supply up to 240W(@24V) and white balance can be controlled as such:

Color temperature	Cool white	Neutral white	Warm white
Power distribution	CH1=0W,CH2=240W	CH1=120W,CH2=120W	CH1=240W,CH2=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

PWM duty(%)

Brightness(%)

Dimming curve for RGB/DIM

Gamma=1.6

PWM duty(%)

Brightness(%)
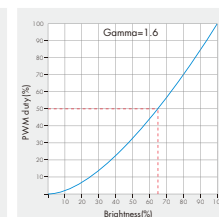
Light on/off fade time

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.

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.