RGB+CCT LED Strip Controller Kit

Model No.: V5-M + RT5

5 channels constant voltage/Touch color wheel/Step-less dimming/Wireless remote 30m distance

Features

FC C CE RoHS emc LVD RED

● Mini style controller with 5 channel constant voltage output.
● Ultra sensitive color adjustment touch wheel.
● Smooth dimming and switch without any flickering.
● Built in 10 dynamic mode, include jump or gradual change style.
● Independent dimming function of each R, G, B, W channel to achieve millions of colors.
● 2 scene memory.
● 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.

Technical Parameters

Input and Output

Input and Output	
Input voltage	12-24VDC
Input current	15.5A
Output voltage	5 x (12-24)VDC
Output current	5CH,3A/CH
Output power	5 x (36-72)W
Output type	Constant voltage

Dimming data

Dimming data	
Input signal	RF 2.4GHz
Dimming range	0-100%
Dimming curve	Logarithmic
PWM Frequency	1000Hz (default)

Warranty and Protection

Warranty and Protection	
Warranty	5 years
Protection	Reverse Polarity

LED Remote's Input and Output

LED Remote's Input and Output	
Output signal	RF(2.4GHz)
Working voltage	3VDC(AAAx2)
Working current	< 5mA
Standby current	< 10μA
Standby time	2 year
Remote distance	30m

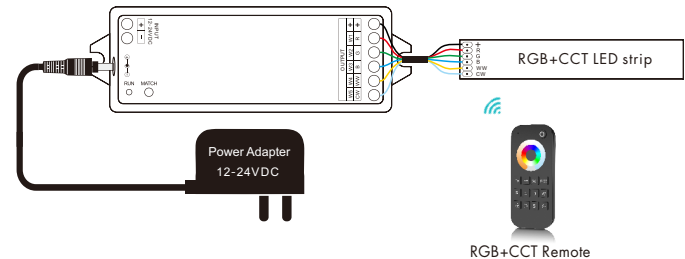### Safety and EMC

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

Environment

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

Mechanical Structures and Installations

Power input +
Power input -
Installation rack
DC socket input
LED indicator
Match key

Output LED +
Output Red LED -
Output Green LED -
Installation rack
Output Blue LED -
Output Warm White LED -
Output Cold White LED -

53.00 mm
17.50 mm
122.00 mm
114.00 mm
38.00 mm
20.00 mm

Wiring Diagram
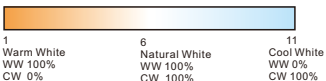

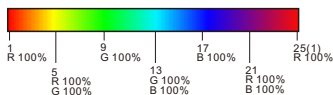RGB+CCT LED strip

Power Adapter
12-24VDC

RGB+CCT Remote
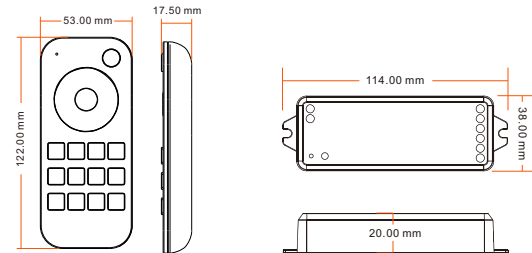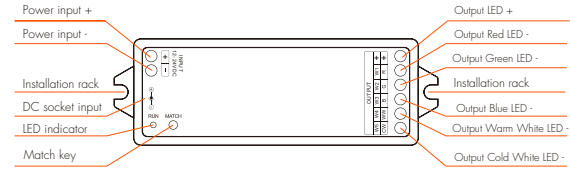
Remote function

⏻ :Turn on/off light.

🎨 :Touch to change RGB color or color temperature.
    Press RGB or CCT key to switch between RGB wheel and CCT wheel.

☀ ☀ : Adjust RGB or color temperature brightness,
    short press 10 levels, long press 1-6s for continuous 256 levels adjustment.

CCT : Adjust color temperature by WW/CW channel,
    short press 11 levels, long press adjust WW+CW brightness continuously.

| 1 Warm White WW 100% CW 0% | 6 Natural White WW 100% CW 100% | 11 Cool White WW 0% CW 100% |

RGB : Short press get 24 kinds static RGB color.

| 1 R 100% | 9 G 100% | 17 B 100% | 25(1) R 100% |
| 5 R 100% G 100% | 13 G 100% B 100% | 21 R 100% B 100% | |

⊗ : Short press run next dynamic mode, long press 2s run mode-cycle.

▷▷ : For dynamic RGB mode, adjust speed,
    short press 10 levels, long press 2s get the default speed.
    For static RGB color, adjust saturation,
    namely change current static RGB color to mixed white slowly,
    short press 11 levels, long press 1-6s for continuous 256 levels adjustment.

R G B : Short press get red, green or blue color directly.
    long press 1-6s to adjust R/G/B brightness continuously to achieve millions of colors.

W : Short press turn on/off white(WW/CW),
    long press 1-6s to adjust white(WW+CW) brightness continuously,
    namely change saturation by adding white color slowly.

S1 S2 : Short press recall the scene, long press 2s save current color into S1/S2.
    the LED indicator display green when save OK.

* When turn on light, the indicator display blue. when turn off light, the indicator display red.
* When touch the color wheel, the indicator will display the same color.
* When press or touch operation is invalid (If the light is off), the indicator display red.
* To extend battery life, no touch or press key operation after a few seconds,
  the touch wheel will enter sleep state, you need press any key to make touch wheel quit sleep state.

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.

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	Use Power Restart
Match: Short press match key, immediately press on/off key of the remote.	Match: Switch off the power, then switch on power, repeat again. Immediately short press on/off key 3 times on the remote. The light blinks 3 times means match is successful.
Delete: Press and hold match key for 5s to delete all match, The light blinks 5 times means all matched remotes were deleted.	Delete: Switch off the power, then switch on power, repeat again. Immediately short press on/off key 5 times on the remote. The light blinks 5 times means all matched remote controls were deleted.

Application notes

All the receivers are matched with one RF remote.

RF remote   30m   30m   30m   ...
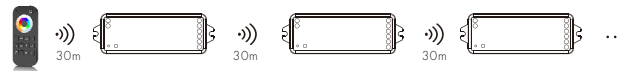
Auto-transmitting: One receiver can transmit the signals from the remote to another receiver within 30m,
as long as there is a receiver within 30m, the remote control distance can be extended.
Auto-synchronization: Multiple receivers within 30m distance can work synchronously when they are controlled
by the same remote, under same dynamic mode and with same speed.
Receiver placement may offer up to 30m communication distance. However, we recommend for indoor applications
that receiver placements should be no further apart than15m.

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	Color temperature smooth	10	White fade in and out

Dual color control

CH4=Warm white LED
CH5=Cool white LED
Each channel can supply up to 72W(@24V) and white balance can be controlled as such:

Color temperature	Cool white	Neutral white	Warm white
Power distribution	CH4=0W,CH5=72W	CH4=72W,CH5=72W	CH4=72W,CH5=0W