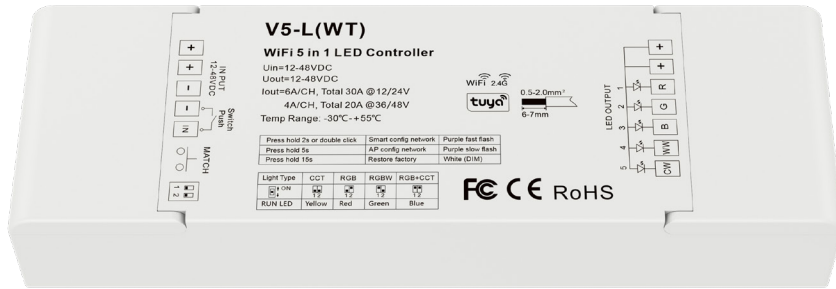# LCWIFI-V5-L-WT

12-48VDC 30Amp WIFI Controller

Features

- 5 in 1 function capable of controlling single colour, RGB, RGBW & dual colour LED
- 12-48VDC input with a 5 channel constant voltage output
- Tuya APP cloud control, supports on/off, RGB, colour temperature, brightness, delay turn on/off, timer run, scene edit and a music play function
- Voice control compatible with amazon ECHO and TmallGenie smart speaker
- Compatible with a wide range of Task Lighting RF 2.4G remote controls
- Each V5-L-WT controller will also work as an WiFi-RF converter by using the Tuya APP to control one or more RF LED controllers or RF LED dimming drivers simultaneously
- PWM frequency options 500Hz, 2000Hz, 8000Hz or 16000Hz
- Ability to connect with an external push switch to achieve on/off and 0-100% dimming function

Input and output	
Input voltage	12-48 VDC
Input current	30.5 A
Output voltage	6A/CH @12/24V 4A/CH @ 36/48V
Output type	Constant Voltage

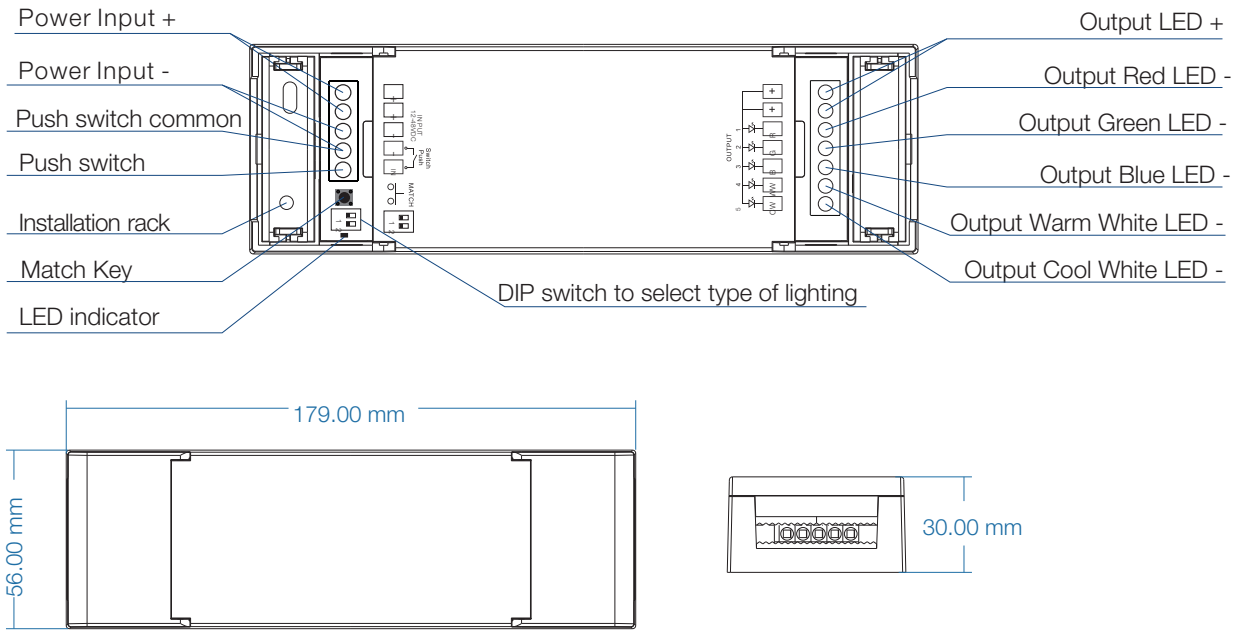| Dimming Data	
Input signal	Tuya App + RF 2.4GHz + Push dim
Control distance	30m (unobstructed)
Dimming gray scale	4096 (2^12) levels
Dimming range	0-100%
Dimming curve	Logarithmic
PWM frequency	2000Hz (default)

Saftety 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	
Operation	Ta: -30°C ~ +55°C
Case temperature	Tc: +85°C
IP rating	IP20

Warranty and Protection	
Warranty	5 years
Protection	Reverse polarity Over-heat Short circuit

Mechanical Structures & Installation

Power Input +
Power Input -
Push switch common
Push switch
Installation rack
Match Key
LED indicator

Output LED +
Output Red LED -
Output Green LED -
Output Blue LED -
Output Warm White LED -
Output Cool White LED -

DIP switch to select type of lighting

179.00 mm

56.00 mm

30.00 mm

System Wiring

3G/4G/5G
WiFi

Tuya Cloud

WiFi

Mobile Phone

WiFi Router

15m

Amazon ECHO

RF Remote(Optional)

30m

30m

Panel RF Remote(Optional)

V5-L(WT)

DIM

30m

RF DIM Controller

DIM

...

CCT

30m

RF CCT Controller

CCT

...

RGB

30m

RF RGB Controller

RGB

...

RGBW

30m

RF RGBW Controller

RGBW

...

RGB+CCT

30m

RF RGB+CCT Controller
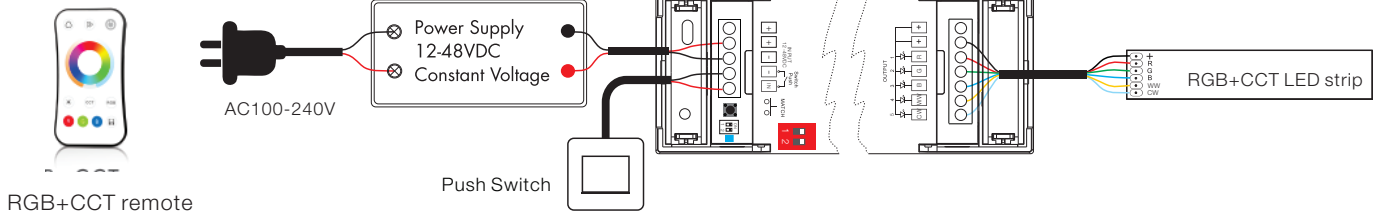(Optional)

RGB+CCT

...
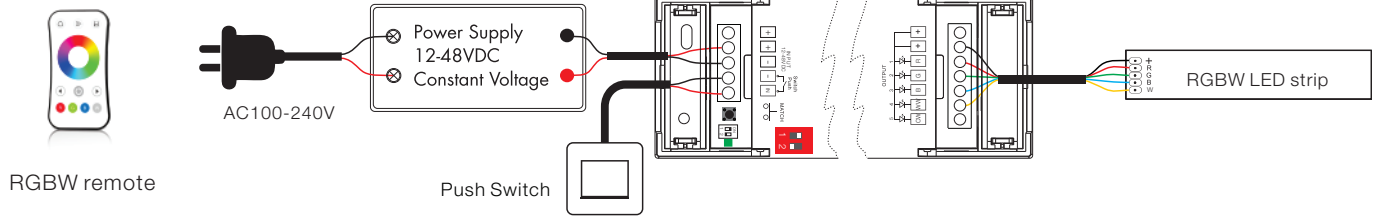
—— Wired connection

------ Wireless connection

Note:
1. The above distance is measured in a spacious (unobstructed) environment,
   Please refer to the actual test distance before installation
2. Check if the WiFi router net is in 2.4G band and check that your router network is not hidden (5G band is not available)
3. Keep the distance between V5-L(WT) device(s) and router close
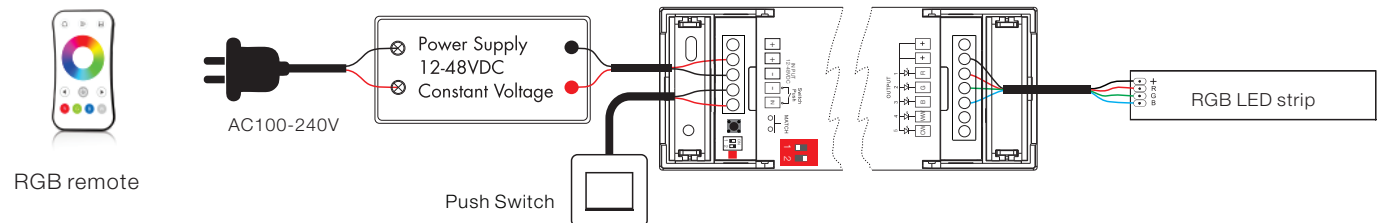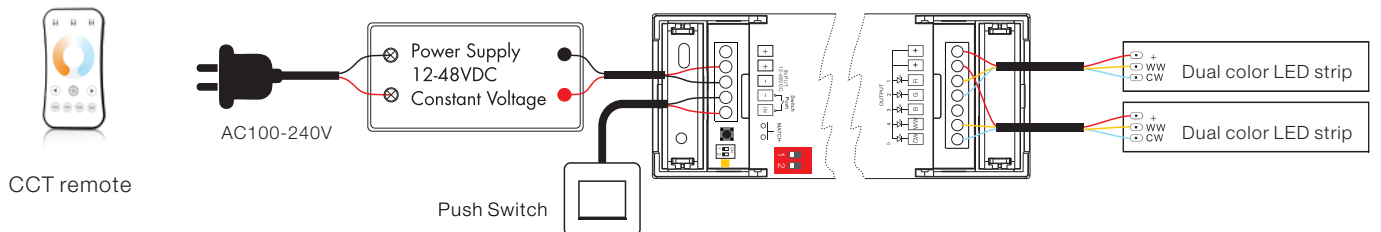4. Check the WIFI Signal
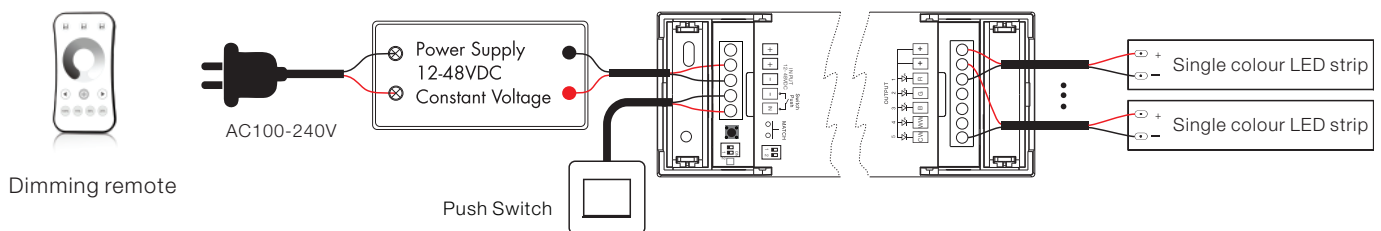
Wiring Diagrams

RGB+CCT remote

Power Supply 12-48VDC Constant Voltage

AC100-240V

Push Switch

RGB+CCT LED strip

RGBW remote

Power Supply 12-48VDC Constant Voltage

AC100-240V

Push Switch

RGBW LED strip

RGB remote

Power Supply 12-48VDC Constant Voltage

AC100-240V

Push Switch

RGB LED strip

CCT remote

Power Supply 12-48VDC Constant Voltage

AC100-240V

Push Switch

Dual color LED strip

Dual color LED strip

Dimming remote

Power Supply 12-48VDC Constant Voltage

AC100-240V

Push Switch

Single colour LED strip

Single colour LED strip

Press and hold the MATCH key for 15 seconds, until the RUN LED indicator turns white, then release. The controller will become DIM type, the light on/off time will also restore to 0.5 seconds, the out PWM frequency will also restore to 2000Hz.

Note

1. After you have changed the light type by DIP switch, please redo the tuya APP configuration operation.
2. For RGB+CCT or CCT light types, continuous power on and off will change all 3 levels of the colour temperature (WW, NW and CW) in sequence.
3. Switch off the power, then switch on the power, repeat again. Immediately short press match key 3 times, the light on/ off time will change between 3 seconds and 0.5 seconds.

Tuya App Connection Options

Press and hold the Match key for 2 seconds, or push the Match key quickly.
Clear all previous network connections and enter Smart configuration mode, the purple LED indicator will flash fast and the output LED will flash 10 times.

Press and hold the Match key for 2 seconds, or quickly push the Match key twice.
Clear all previous network connections and enter Smart configuration mode, the purple LED indicator will flash fast and the output LED will flash 10 times.

Repeat power on and off 5 consecutive times, clear all previous network connections and enter Smart configuration mode, the output LED will flash 10 times.

If the Tuya APP network connection was successful, the RUN LED indicator will stop, flash purple, and turn the corresponding light colour (White: DIM, Yellow: CCT, Red: RGB, Green: RGBW, Blue: RGB+CCT) and in the Tuya APP, you can find RGB+CCT device (or other DIM, CCT, RGB or RGBW).

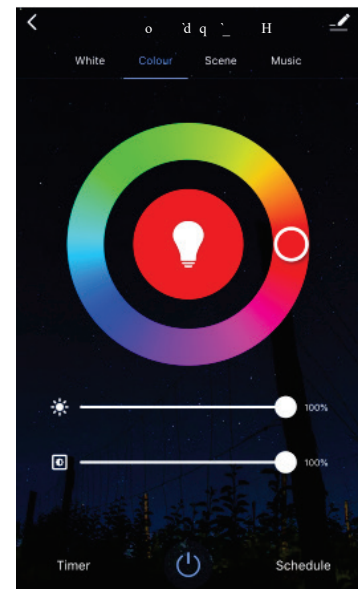## Tuya App Interface
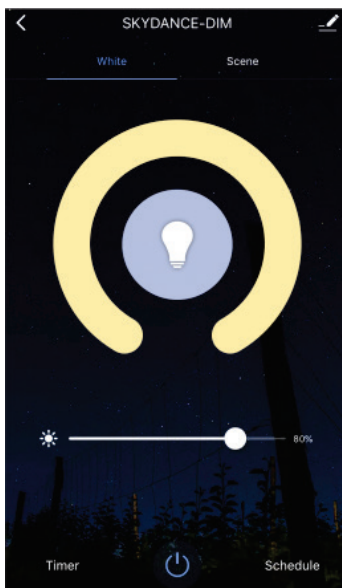
White interface

To Dim
Touch the brightness slide to adjust brightness.

For RGB type:
Touch the brightness slide, mix the RGB with white first, then adjust the white brightness.

For RGBW type:
Touch the brightness slide then adjust the white brightness.

For RGB or RGBW type:

Touch the colour wheel to adjust the static RGB colour.
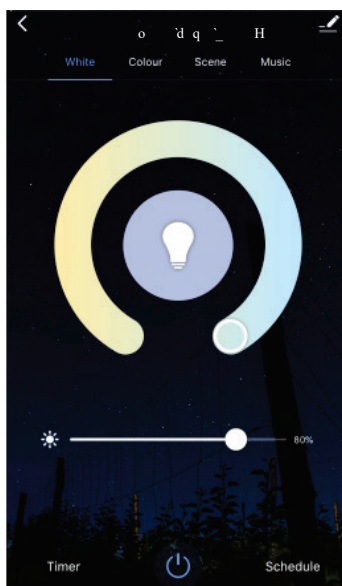Touch brightness slide to adjust colour brightness.
Touch the saturation slide to adjust the colour saturation, namely gradient from the current colour to white (RGB mixed).

For RGB+CCT type:
Touch the colour wheel to adjust the static RGB colour, the WW/CW will turn off automatically.
Touch the brightness slide to adjust the colour brightness.
Touch the saturation slide to adjust the colour saturation, namely gradient from the current colour to white (RGB mixed).

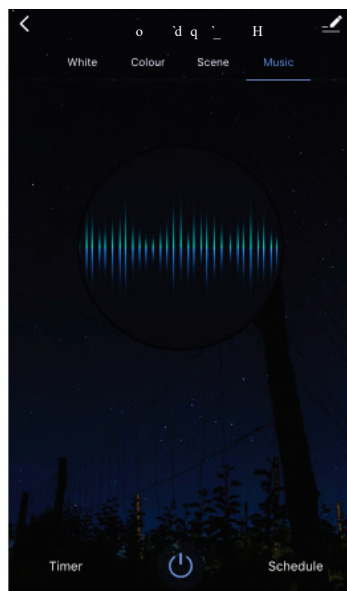**Colour temperature interface**

For CCT type:
Touch the colour wheel to adjust the colour temperature.
Touch the brightness slide to adjust the brightness.

For RGB+CCT type:
Touch the colour wheel to adjust the colour temperature, the RGB will turn off automatically.
Touch the brightness slide to adjust the white brightness.

Scene Interface

- The 1-4 scene is static colour for all light types and the inner colour of these scenes can be edited.
- The 5-8 scene is dynamic mode for RGB, RGBW, RGB+CCT type, such as green fade in and fade out, RGB jump, 6 colour jump and 6 colour smooth.

Music, Timer and Schedule

- The music play mode can use the smart phone music player or micro-phone as the music signal input.
- The Timer key can turn the light on or off within the next 24 hours.
- The Schedule key can add multiple timers to turn the light on or off according to different time periods.

Match V5-L-WT to Remote Control (Optional)

The end user can choose between the two options listed below showing the process to match/delete the controllers.

Use the V5-L(WT)'s Match key

Match:
Short press the match key on the V5-L(WT), immediately press the on/off key (single zone remote) or the zone key (multiple zone remote) on the remote. The LED indicator will quickly flash a few times to show the match is successful.

Delete:
Press and hold the match key on the V5-L(WT) for 10 seconds, the LED indicator will quickly flash a few times show all matched remotes were deleted.

Use Power Restart to Match:

Switch off the power of V5-L(WT), then switch on the power, repeat again. Immediately short press the on/off key (single zone remote) or the zone key (multiple zone remote) 3 times on the remote. The light will blink 3 times to show the match is successful.

Delete:
Switch off the power of the V5-L(WT), then switch on the power, repeat again. Immediately short press the on/off key (single zone remote) or zone key (multiple zone remote) 5 times on the remote. The light will blink 5 times to show all matched remotes were deleted.

WiFi-RF Converter or Match to a RF Controller/Driver

Set up the V5-L(WT) to work as a WiFi-RF converter or match to an RF LED controller or dimming driver. Two options are listed below showing the process to match/delete the controllers.

Use the controllers Match key

Match:
Short press match key of the controller, immediately press on/off key on the Tuya APP. The LED indicator fast flash a few times to show the match is successful.

Delete:
Press and hold match key of the controller for 5s, The LED indicator fast flash a few times means match was deleted.
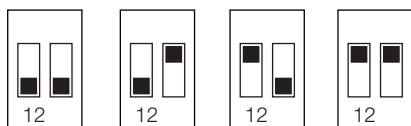
Use Power Restart to Match:

Switch off the power of the controller, then switch on power, repeat again. Immediately short press on/off key 3 times on the Tuya APP. The light blinks 3 times means match is successful.

Delete:
Switch off the power of the controller, then switch on power, repeat again. Immediately short press on/off key 5 times on the Tuya APP. The light blinks 5 times to show the match was deleted

PWM Frequency Setting

When the power is off, select the DIP switch, press and hold the MATCH key and power up the controller at the same time. The RUN LED indicator will flash with a white colour twice to show the PWM frequency setting is successful.
You can select between four PWM frequency: 500Hz, 2000Hz, 8000Hz or 16000Hz.
Using a higher PWM frequency, will cause a lower output current and a higher power noise, however would be suitable for cameras with no flickering.

500Hz   2000Hz   8000Hz   16000Hz

Single Colour	Click	ON/OFF
	Double Click	Turn on at 100% or 10%(night light) and vice-versa
	Long press(>1s) from OFF	Dimming UP/DOWN
	Long press(>1s) from ON	Dimming UP/DOWN
Dual Colour	Click	ON/OFF
	Double Click	Turn on at 100% or 10%(night light) and vice-versa
	Long press(>1s) from OFF	Colour temperature UP/DOWN (turn off and turn on to return dimming)
	Long press(>1s) from ON	Dimming UP/DOWN
RGB	Click	ON/OFF
	Double Click	Change from colour mode to white mode (RGB mixed) and vice-versa
	Long press(>1s) from OFF	If on colour mode change rotation speed; If on white mode dimming UP/DOWN
	Long press(>1s) from ON	If on colour mode start/stop colour rotation; If on white mode dimming UP/DOWN
RGBW	Click	ON/OFF
	Double Click	Change between colour mode, white mode(W channel) and colour+W mode
	Long press(>1s) from OFF	If on colour mode change rotation speed; If on white mode or colour+W mode, W dimming UP/DOWN
	Long press(>1s) from ON	If on colour mode start/stop colour rotation; If on white mode or colour+W mode, W dimming UP/DOWN
RGB+CCT	Click	ON/OFF
	Double Click	Change from colour mode to tunable white mode and vice-versa
	Long press(>1s) from OFF	If on colour mode change rotation speed; If on tunable white mode colour temperature UP/DOWN (turn off and turn on to return dimming)
	Long press(>1s) from ON	If on colour mode start/stop colour rotation; If on tunable white mode dimming UP/DOWN

Colour Rotation:

You can select from the 4 rotation speeds below
- 10 flash/s means 6 seconds colour rotation
- 5 flash/s means 30 seconds colour rotation
- 2 flash/s means 1 minute colour rotation
- 1 flash/s means 6 minutes colour rotation

Dynamic Mode List

For RGB/RGBW

No.	Name	No.	Name
1	RGB jump	6	RGB fade in and out
2	RGB smooth	7	Red fade in and out
3	6 colour jump	8	Green fade in and out
4	6 colour smooth	9	Blue fade in and out
5	Yellow cyan purple smooth	10	White fade in and out

For RGB+CCT

No.	Name	No.	Name
1	RGB jump	6	RGB fade in and out
2	RGB smooth	7	Red fade in and out
3	6 colour jump	8	Green fade in and out
4	6 colour smooth	9	Blue fade in and out
5	Colour temp smooth	10	White fade in and out