

Zigbee & RF 5 in1 LED Controller

Model No.: C5-L(WZ)(150-500mA) / C5-L(WZ)(350-1200mA)

Tuya APP cloud control/Philips HUE control/Voice control/5 Channels/Multiple current/Push Dim/Wireless remote control

Features

- 5 in 1 function, used for control RGB, RGBW, RGB+CCT, color temperature or single color LED by DIP switch.
- DC to DC constant current output, multiple output current settings.
- Tuya APP cloud control, support on/off, RGB color, color temperature and brightness adjust, delay turn on/off light, timer run, scene edit and music play function.
- Philips HUE APP control by connect with Philips HUE bridge.
- Voice control, support amazon ECHO and TmallGenie smart speaker.
- Match with RF 2.4G remote control optional.
- User need set light type before Tuya APP network connection and match RF remote of the same light type.
- Each C5-L(WZ) controller can also work as Zigbee-RF converter, then use Tuya APP to control one or more RF LED controller or RF LED dimming driver synchronously.
- Fade in and out effect selectable.
- Connect with external push switch to achieve on/off and 0-100% dimming function.

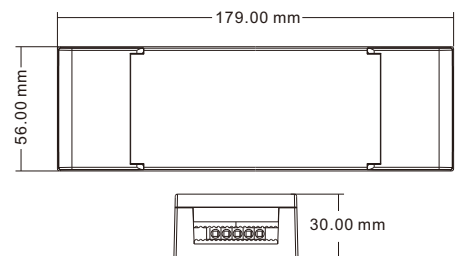
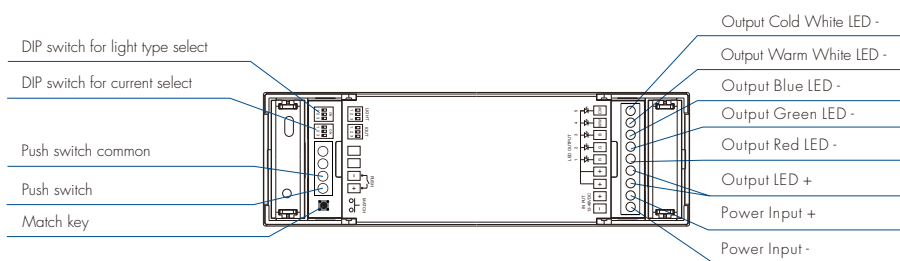


FC CE RoHS EMC LVD RED

Technical Parameters

Input and Output		Dimming data		Safety and EMC	
Input voltage	12-48VDC	Input signal	Tuya APP + RF 2.4GHz + Push-DIM	EMC standard (EMC)	ETSI EN 301 489-1 V2.2.3 ETSI EN 301 489-17 V3.2.4
Output voltage	5 x (3-45)VDC	Control distance	30m(Barrier-free space)	Safety standard(LVD)	EN 62368-1:2020+A11:2020
Output current	5CH,150-500mA or 350-1200mA/CH	Dimming gray scale	4096 (2 ¹²) levels	Radio Equipment(RED)	ETSI EN 300 328 V2.2.2
Output power	5 x (0.45-22.5)W (150-500mA) 5 x (1.05-54)W (350-1200mA)	Dimming range	0-100%	Certification	CE,EMC,LVD,RED
Output type	Constant current	Dimming curve	Logarithmic	Environment	
Package		Warranty and Protection		Operation temperature	Ta: -30 °C ~ +55 °C
Size	L185 x W58 x H36mm	Warranty	5 years	Case temperature (Max.)	Tc: +85 °C
Gross weight	0.226kg	Protection	Reverse Polarity Short circuit	IP rating	IP20

Mechanical Structures and Installations



LED Current Selection

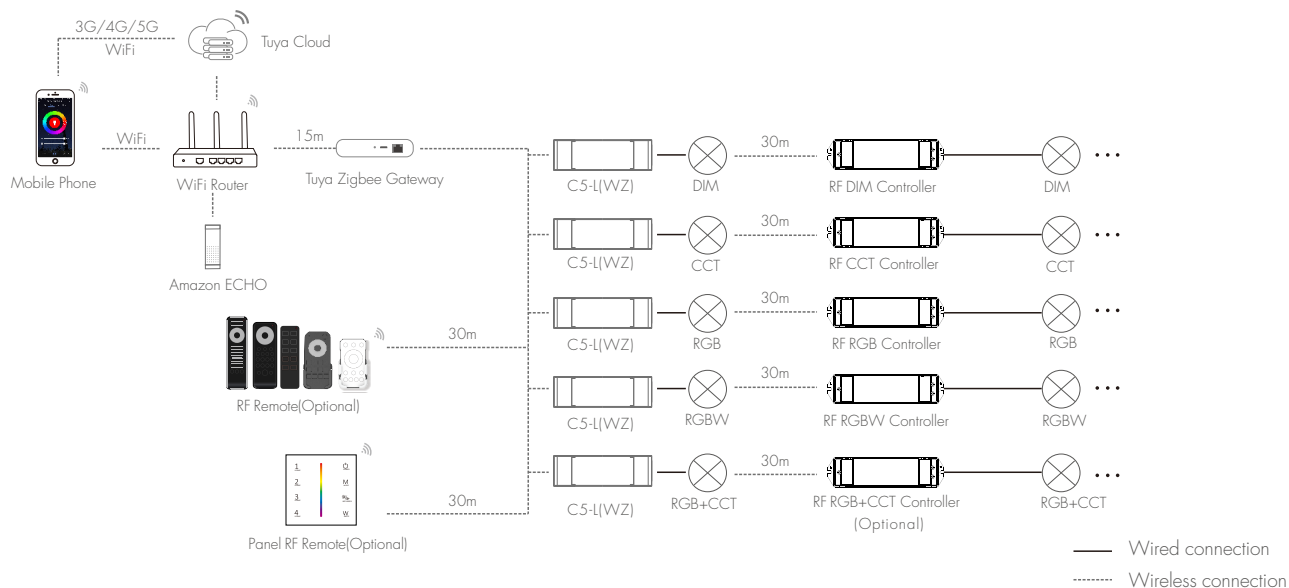


Note: Please select the correct current through the DIP switch on the PCB board when the power is off.

DIP Switch												
C5-L(WZ) (150-500mA)	Output Current	150mA	200mA	250mA	300mA	350mA	400mA	450mA	500mA			ON OFF
	Output Voltage	3-45V	3-45V	3-45V	3-45V	3-45V	3-45V	3-45V	3-45V			
	Output Power/CH	0.45-6.75W	0.6-9W	0.75-11.25W	0.9-13.5W	1.05-15.75W	1.2-18W	1.35-20.25W	1.5-22.5W			

DIP Switch												
C5-L(WZ) (350-1200mA)	Output Current	350mA	500mA	600mA	700mA	800mA	900mA	1050mA	1200mA			ON OFF
	Output Voltage	3-45V	3-45V	3-45V	3-45V	3-45V	3-45V	3-45V	3-45V			
	Output Power/CH	1.05-15.75W	1.5-22.5W	1.8-27W	2.1-31.5W	2.4-36W	2.7-40.5W	3.15-47.25W	3.6-54W			

System wiring

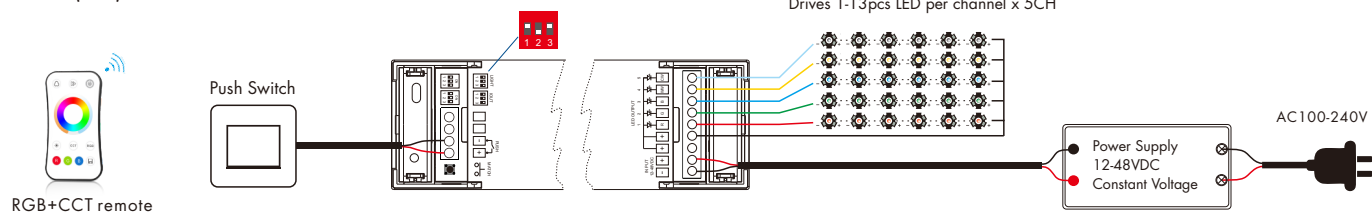


Note:

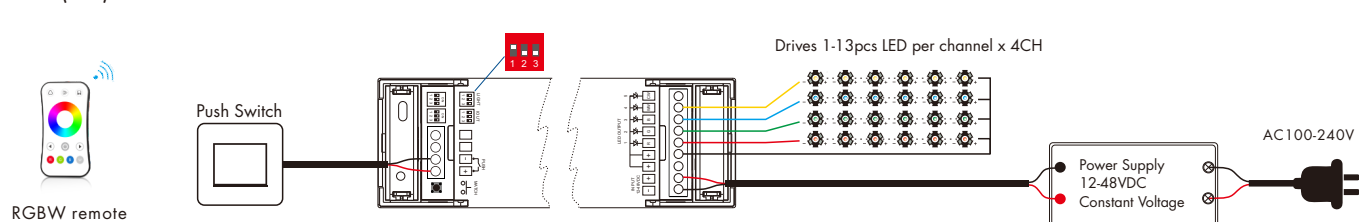
1. The above distance is measured in spacious (no obstacle) environment, Please refer to the actual test distance before installation.
2. Users can also use the Tuya Zigbee gateway to realize remote control and voice control.

Wiring Diagram

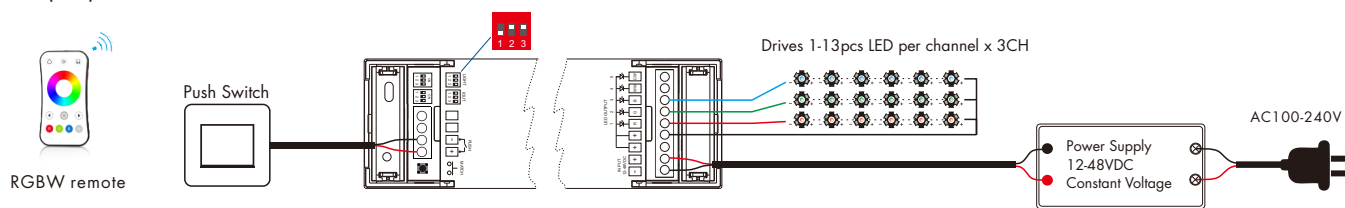
• C5-L(WZ) for RGB+CCT



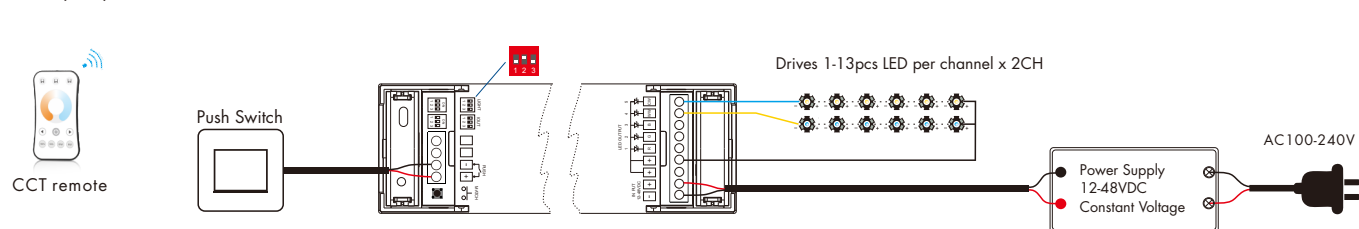
• C5-L(WZ) for RGBW

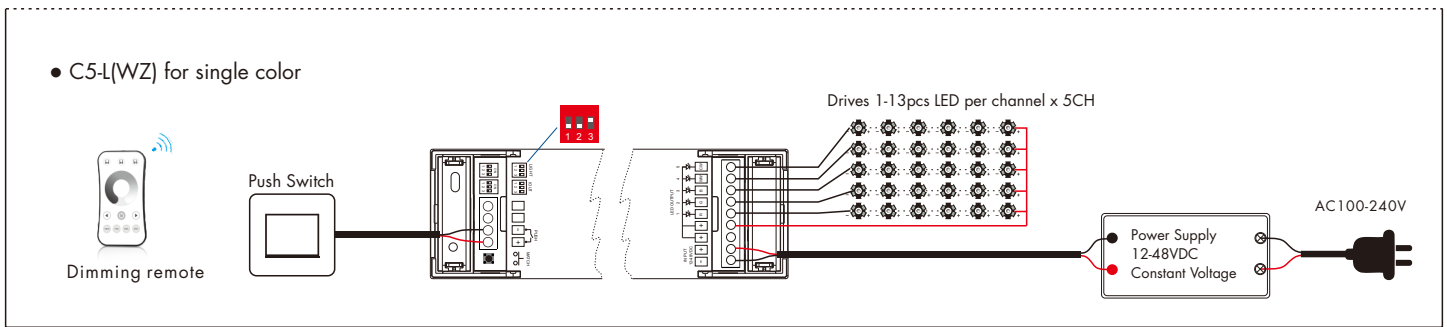


• C5-L(WZ) for RGB



• C5-L(WZ) for dual color





- Note:
1. After changed the light type by DIP switch, please redo the tuya APP config operation.
 2. The LED quantity at each channel can be different, the controller could auto check and output a proper voltage to each channel according to its LED quantities.
 3. The controller works on buck mode, the voltage of power supply should be greater than the total voltage of the series LEDs.
 4. Switch off the power, then switch on power, repeat again. Immediately short press match key 3 times, the light on/off time will change between 3s and 0.5s.

Tuya APP network connection

Press and hold Match key for 2s, reset ZigBee network.

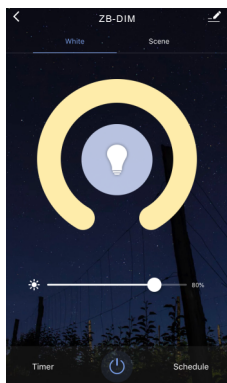
Press and hold Match key for 5s, or push twice Match key fastly:

Clear previous network connection, enter config mode, the RUN LED indicator fast flash, the output LED will flash 10 times.

Repeat power on and off for 5 consecutive times, also clear previous network connection, enter config mode, the output LED will flash 10 times.

If Tuya APP network connection succeed, the RUN LED indicator will stop flash, and in Tuya APP, you can find ZB-RGB+CCT device (or other DIM, CCT, RGB or RGBW).

Tuya APP interface



White interface

For DIM type:

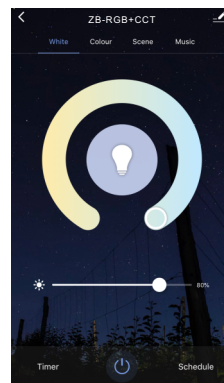
Touch brightness slide to adjust brightness.

For RGB type:

Touch brightness slide, get RGB mixed white firstly, then to adjust white brightness.

For RGBW type:

Touch brightness slide, adjust white channel brightness.



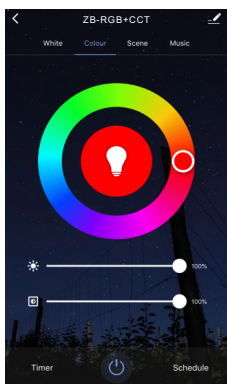
Color temperature interface

For CCT type:

Touch color wheel to adjust color temperature.
Touch brightness slide to adjust brightness.

For RGB+CCT type:

Touch color wheel to adjust color temperature, RGB will turn off automatically.
Touch brightness slide to adjust white brightness.



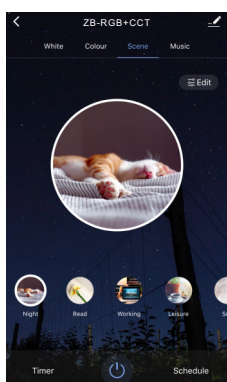
Colour interface

For RGB or RGBW type:

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

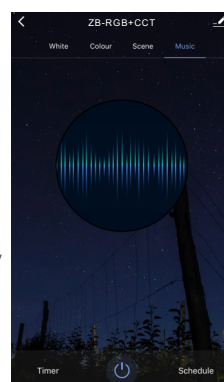
For RGB+CCT type:

Touch color wheel to adjust static RGB color, WW/CW will turn off automatically.
Touch brightness slide to adjust color brightness.
Touch saturation slide to adjust color saturation, namely gradient from the current color to white (RGB mixed).



Scene interface

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



Music, Timer, Schedule

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

C5-L(WZ) match remote control (Optional)

End user can choose the suitable match/delete ways. Two options are offered for selection:

Use the C5-L(WZ)'s Match key

Match:

Short press match key of C5-L(WZ), 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 of C5-L(WZ) for 10s, The LED indicator fast flash a few times means all matched remotes were deleted.

Use Power Restart

Match:

Switch off the power of C5-L(WZ), 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 C5-L(WZ), 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.

C5-L(WZ) work as Zigbee-RF converter to match RF LED controller or dimming driver

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 of the controller, immediately press on/off key on the Tuya APP. The LED indicator fast flash a few times means 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

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 means match was deleted.

Push Dim

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

Color rotation:



We can select 4 rotation speed:

- 10 flash/s means 6 seconds color rotation
- 5 flash/s means 30 seconds color rotation
- 2 flash/s means 1 minute color rotation
- 1 flash/s means 6 minutes color rotation

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

RGB+CCT 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