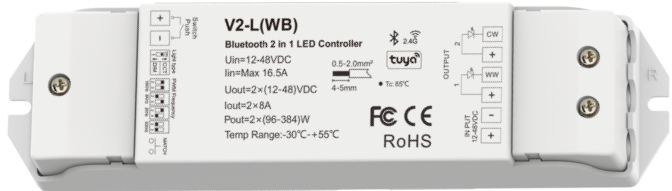


Bluetooth & RF 2 in 1 LED Controller

Model No.: V2-L(WB)

Tuya APP cloud control/Voice control/2 Channels/2 color/Push Dim/Four PWM frequency/Linear or logarithmic dimming



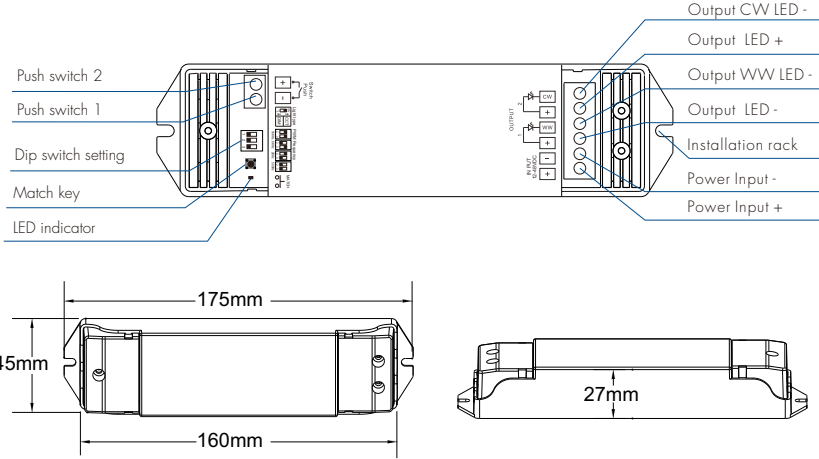
Features

- 2 in 1 function, used for control color temperature or single color LED strip.
- DC12-48V input, 2 channel constant voltage output.
- Tuya APP cloud control, support on/off, color temperature and brightness adjust, delay turn on/off light, timer run, scene edit and music play function.
- Voice control, support amazon ECHO and TmallGenie smart speaker.
- Match with RF 2.4G remote control optional.
- User need set light type by press key before Tuya APP network connection and match RF remote of the same light type.
- Each V2-L(WB) controller can also work as Bluetooth-RF converter, then use Tuya APP to control one or more RF LED controller or RF LED dimming driver synchronously.
- Light on/off fade time 3s selectable.
- Connect with external push key to achieve on/off and 0-100% dimming function.
- Logarithmic or linear dimming curve selectable.
- PWM frequency 500Hz, 2KHz, 8KHz or 16KHz selectable.
- Overheat / Overload / Short circuit protection, recover automatically.

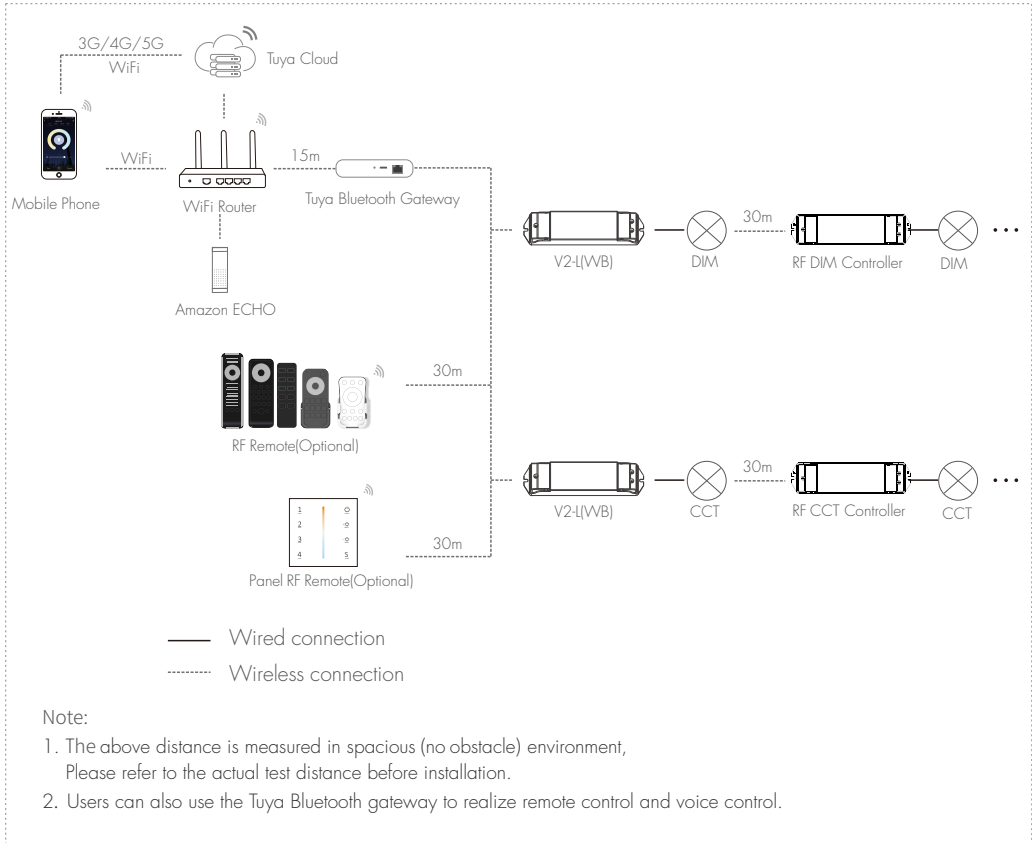
Technical Parameters

Input and Output	
Input voltage	12-48VDC
Input current	16.5A
Output voltage	2 x (12-48)VDC
Output current	2CH,8A/CH
Output power	2 x (96-384)W
Output type	Constant voltage
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	
Operation temperature	Ta: -30℃ ~ +55℃
Case temperature (Max.)	Tc: +85℃
IP rating	IP20
Dimming data	
Input signal	Tuya APP + RF 2.4GHz + Push Dim
Control distance	30m(Barrier-free space)
Dimming gray scale	4096 (2^12) levels
Dimming range	0-100%
Dimming curve	Logarithmic or linear
PWM Frequency	500Hz, 2KHz, 8KHz or 16KHz
Warranty and Protection	
Warranty	5 years
Protection	Reverse polarity Over-load Short circuit
Weight	
Net weight	0.107kg
Gross weight	0.126kg

Mechanical Structures and Installations



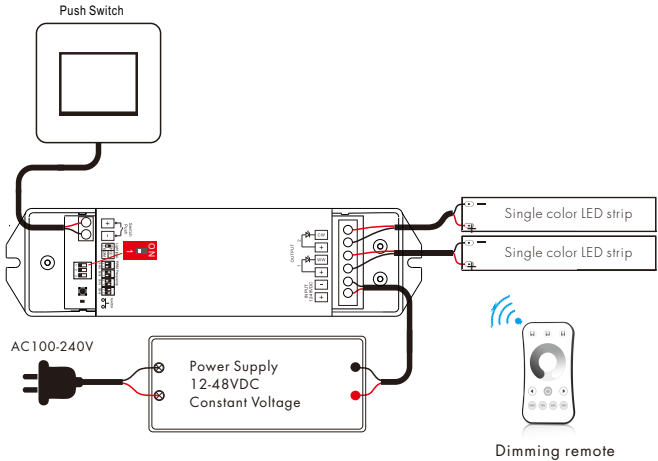
System wiring



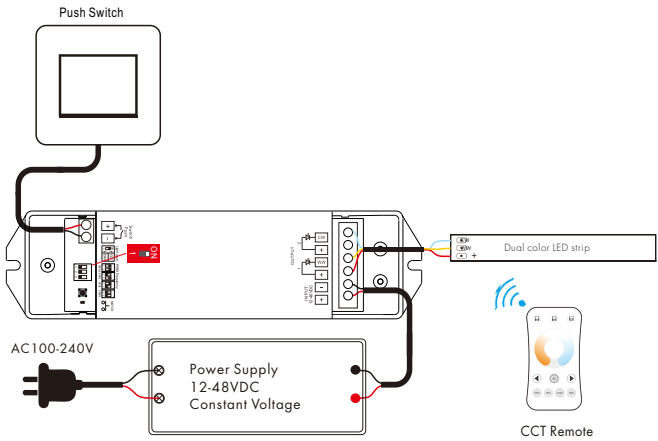
- Note:
1. The above distance is measured in spacious (no obstacle) environment, Please refer to the actual test distance before installation.
 2. Users can also use the Tuya Bluetooth gateway to realize remote control and voice control.

Wiring Diagram

- V2-L(WB) for single color



- V2-L(WB) for dual color



- Note:
1. After changed the light type by DIP switch, please redo the tuya APP config operation.
 2. For CCT light type, continuous power on and off will change 3 levels color temperature (WW, NW and CW) in sequence.
 3. 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.

Push Dim

DIM Single color	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
CCT Dual Color	Click	ON/OFF
	Double Click	Turn on at 100% or 10%(night light) and vice-versa
	Long press(>1s) from OFF	Color temperature UP/DOWN (turn off and turn on to return dimming)
	Long press(>1s) from ON	Dimming UP/DOWN

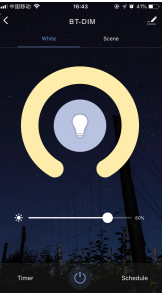
Tuya APP network connection

Press and hold Match key for 5s, or push twice Match key fastly:
Clear previous network connection, enter config mode, the blue 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.

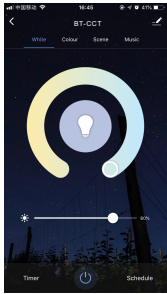
If Tuya APP network connection succeed, the blue LED indicator will stop flash,
and in Tuya APP, you can find BT-DIM/CCT device.

Tuya APP interface



White interface

For DIM type:
Touch brightness slide
to adjust brightness.



Color temperature interface

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



Scene interface

The 1-4 scene is static color.
the inner color of these scene can be editable.

PWM frequency setting



We can select four PWM frequency: 500Hz, 2KHz, 8KHz or 16KHz.
Higher PWM frequency, will cause lower output current, higher power noise,
but more suitable for camera(No flickers for video).

V2-L(WB) match remote control (Optional)

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

Use the V2-L(WB)'s Match key

Match:
Short press match key of V2-L(WB),
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 V2-L(WB) 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 V2-L(WB), 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 V2-L(WB), 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.

V2-L(WB) work as Bluetooth-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.

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.