S1-HL(WT)

WiFi & RF Dimming High Voltage LED Strip Controller

WiFi + RF

CE RoHS

Features

- WiFi & RF dimming high voltage LED strip controller, can control maximum about 50 meters of high voltage LED strip, different LED strip may have difference.
- Tuya smart APP cloud control, support on/off, brightness adjustment, delayed light on/off, scheduled operation, scenario and music play.
- Voice control, support for Amazon Alexa, Google Assistant, Tmall Genie and Xiaodu voice assistant.
- Match with RF 2.4GHz single-zone or multi-zone dimming remote controls.
- One RF controller accept up to 10 remote control.
- 4096 levels 0-100% dimming smoothly without any flash.
- Light on/off fade time 3s selectable.
- Connect with external push switch to achieve on/off and 1-100% dimming function.
- Each S1-HL(WT) controller can also work as WiFi-RF converter, use Tuya smart APP to control one or more RF LED controller or RF LED dimming driver synchronously.

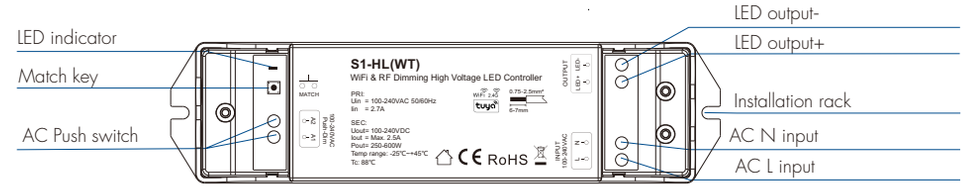
Technical Parameters

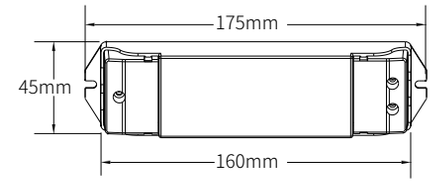
Input and Output	
Input voltage	100-240VAC
Input current	2.7A
Output voltage	100-240VDC
Output current	Max. 2.5A
Output power	250-600W
Environment	
Operation temperature	Ta: -25°C ~ +45°C
Case temperature (Max.)	Tc: +88°C
IP rating	IP20

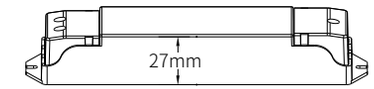
Dimming data	
Input signal	WiFi + RF 2.4GHz + Push
Remote distance	30m(Barrier-free space)
Dimming gray scale	4096 (2^12) levels
Dimming range	0 - 100%
PWM Frequency	2KHz
Package	
Size	L178 x W50 x H38mm
Gross weight	0.146kg

Safety and EMC	
EMC standard	EN IEC 55015/ EN IEC 61547 EN IEC 61000-3-2/ EN IEC 61000-3-3 ETSI EN 301 489-1/-3/-17
Safety standard	EN 61347-1/-2
Radio equipment	ETSI EN 300 328 ETSI EN 300 440
Certication	CE RoHS
Warranty	
Warranty	5 years

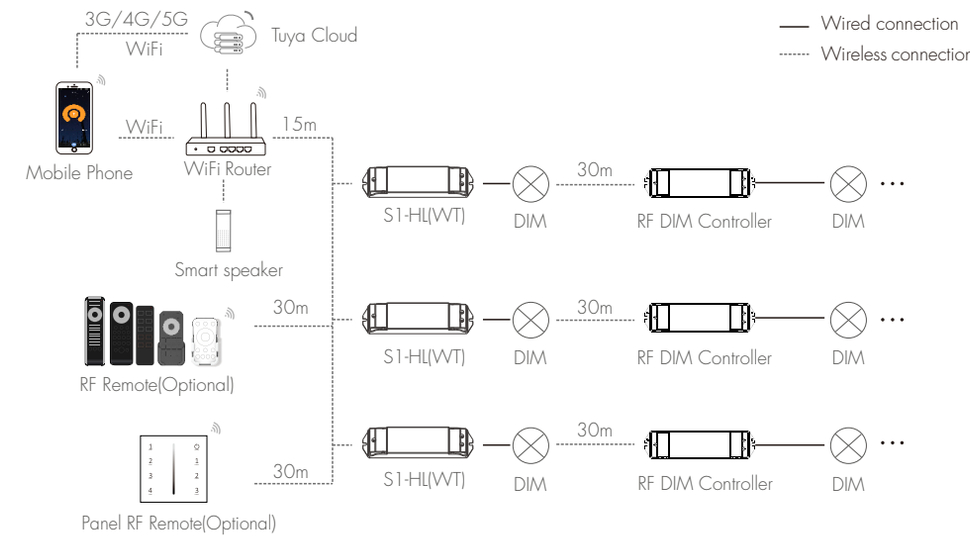
Mechanical Structures and Installations







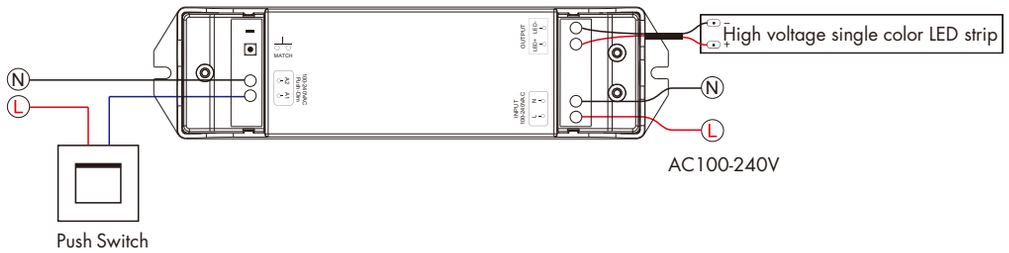
System Wiring



Note:
1. The above distance is measured in spacious(no obstacle) environment, Please refer to the actual test distance before installation.
2. Please check if the WiFi router net in 2.4G band, the 5G band is not available, and do not hide your router network.
3. Please keep the distance between S1-HL(WT) devices and router close, and check the WiFi signals.
4. WiFi signal strength detection: open the main interface of social security, click enter the device interface, click "check device network" for testing.

Wiring Diagram

Caution: This controller apply for high voltage LED strip, please carefully ensure all wire connections and polarities are correct and secure before applying power, otherwise this controller or high voltage LED strip will be damaged.



Note:
It is recommended that it be used at 80% of full load in order to cope with emergencies and harsh environments.

AC Push Dim Function

- **Short press:** Turn on or off light.
- **Long press(1-6s):** Press and hold to step-less dimming, With every other long press, the light level goes to the opposite direction.
- **Dimming memory:** Light returns to the previous dimming level when switched off and on again, even at power failure.

Tuya Smart APP Network Connection

- Download and open APP

Search for "Tuya Smart/Smart Life APP" in the app store, or scan the QR code on the right to download the APP.
Register and login after installation.

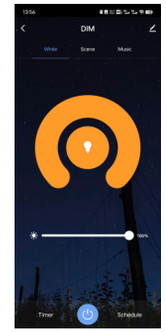
Smart Life Tuya Smart

- APP Pairing Network

Short press twice match key fastly, or long press match key 5s,
or repeat power off and on for 5 consecutive times fastly, enter WiFi config mode,
the LED indicator flash fastly, the output LED will flash 10 times.
If Tuya Smart APP network connection succeed, the LED indicator will stop flash.
In Tuya Smart APP, you can find DIM device.

When controlling the light with Tuya Smart/Smart Life APP, if the network connection is poor, you can control the light with Bluetooth connection within the Bluetooth control range.
Note: The light can not be directly controlled by Bluetooth without WiFi configuration.

The Tuya APP operation interface: Touch the brightness slider to adjust the brightness.



S1-HL(WT) Match RF Remote Control

User can choose the suitable match/delete ways.

Use S1-HL(WT)'s Match key

Match:
Short press match key,
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 for 10s,
The LED indicator fast flash a few times
means all matched remoteswere 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.

S1-HL(WT) Work as WiFi-RF Converter to Match RF LED Controller or Driver

User can choose the suitable match/delete ways.

Use controller/driver's Match key

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

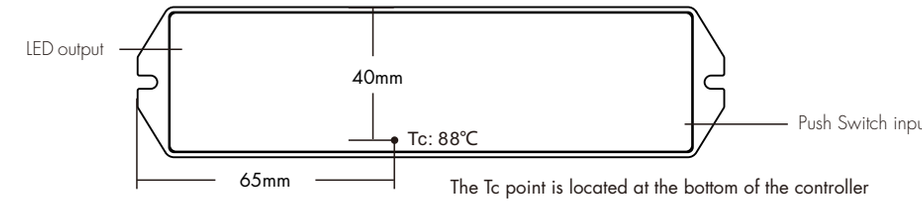
Delete:
Long press match key corresponding to the controller/driver
to delete all matched remotes.
The LED indicator fast flash a few times means all matched remotes
were deleted successfully.
(Refer to your controller/driver manual for the required
duration of the long press to clear the remote control)

Use Power Restart

Match:
Switch off, then switch on power, repeat again.
Immediately short press on/off key 3 times
on the Tuya smart APP.
The light flashes 3 times means match is successful.

Delete:
Switch off, then switch on power, repeat again.
Immediately short press on/off key 5 times
on the Tuya smart APP.
The light flashes 5 times means match was deleted.

Light on/off Time Setting

Long press match key 20s, set the light on/off time to 3s, the indicator light of LED controller blinks 3 times.
Long press match key 15s, restore factory default parameter, the indicator light of LED controller blinks 2 times,
the light on/off time restores to 0.5s.

Tc Point Location