

EnoSync Series

Smart LED Controller

P/N: EnoSync-Hub5



Features

- Smart LED Controller
Supports RGBW, RGB+CCT, CCT, RGB, and single-color LED strips.
- Tuya Smart Life App
Full control of color, CCT, brightness, scenes, timers, and music-sync.
- RF Remote Option
One remote can control multiple controllers, and each controller can pair with multiple remotes.
- Voice Control
Compatible with Amazon Alexa, Google Assistant, Tmall Genie, and Xiaodu.
- 12/24V, up to 360W load.
- Optional Soft On/Off
Selectable 3-second fade-in/fade-out.



Technical Parameters

Input and Output

Input Voltage:	12-24VDC
Input Current:	15A
Output Voltage:	5 x (12-24)VDC
Output Current:	5CH,3A/CH
Output Power:	5 x (36-72)W
Output Type:	Constant voltage

Environment

Operation temperature:	-30°C ~ +55°C/-22°F ~ +131°F
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Dimming data

Input signal:	WiFi + RF 2.4GHz
Control distance:	30m (Barrier-free space)
Dimming gray scale:	4096 (2^12) levels
Dimming range:	0 -100%
Dimming curve:	Logarithmic
PWM frequency:	1000Hz (default)

Package

Dimensions (W x H x L):	1.49" x 0.78" x 4.48"
Gross weight:	0.073kg

Safety and EMC

EMC standard:	EN IEC 55015/EN IEC 61547 ETSI EN 301 489-1/-3/-17
Safety standard:	EN 61347-1/-2
Radio Equipment:	ETSI EN 300 440 ETSI EN 300 328
Certification:	FCC UL CE RoHS

Warranty and Protection

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

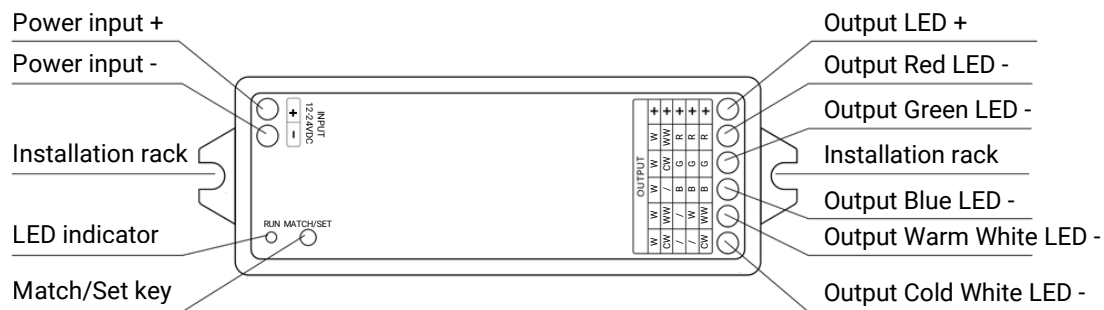
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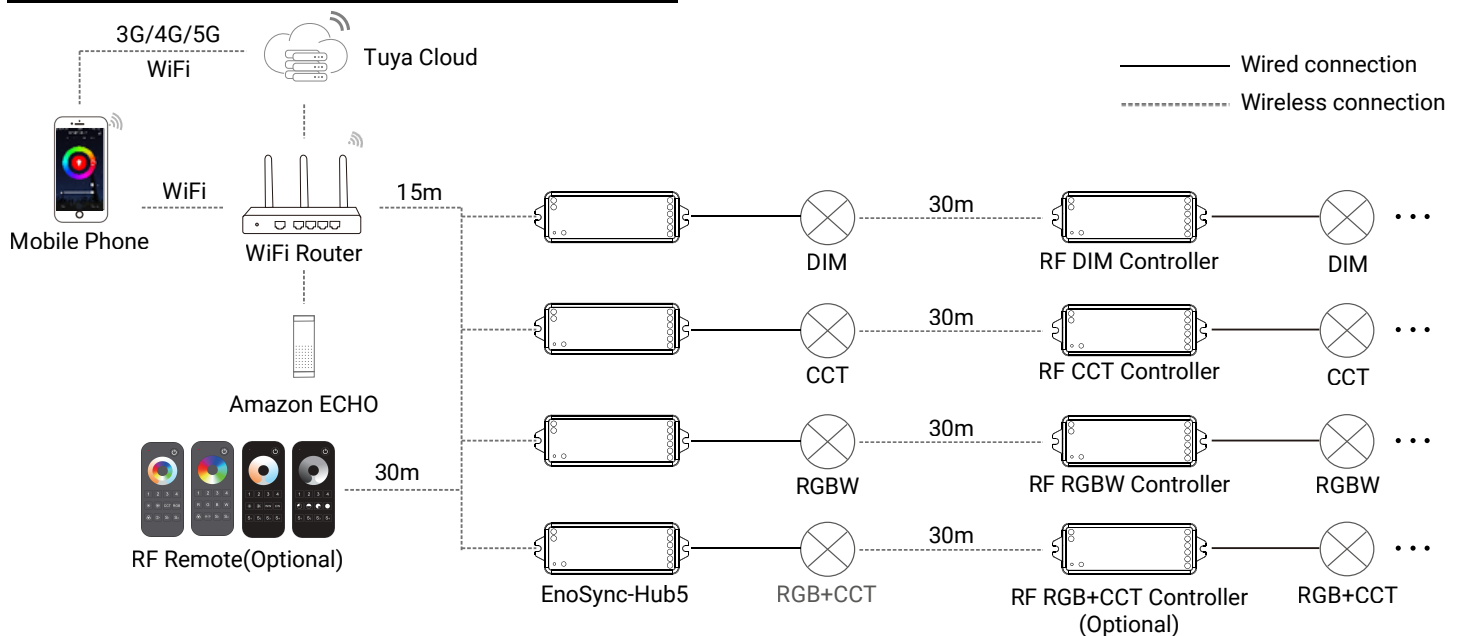
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User Interface



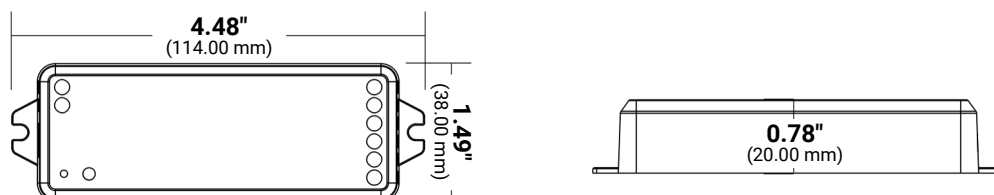
System Wiring



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 EnoSync Series Smart LED Controller devices and router close, and check the WiFi signals.

Mechanical Specifications



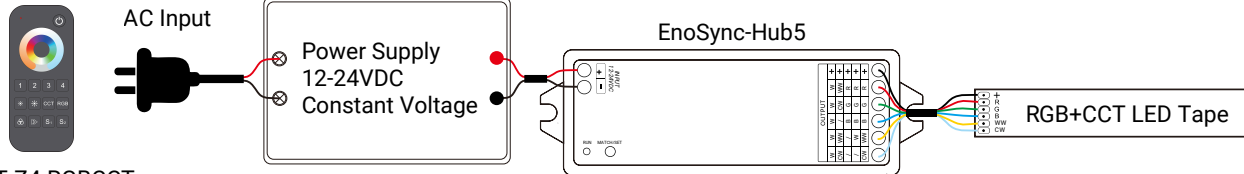
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Wiring Diagrams

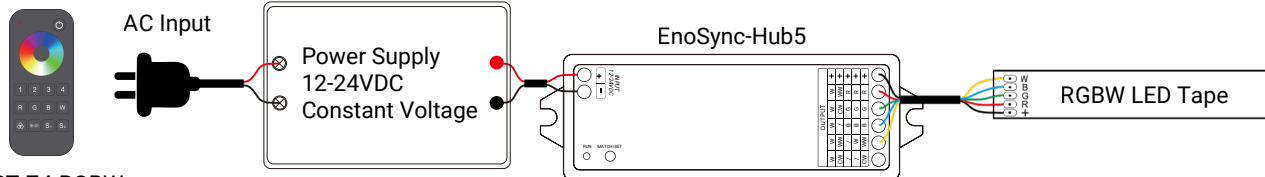
For RGB+CCT



ES-RT-Z4-RGBCCT

Press and hold match/set key for 16s, until the RUN LED indicator turn blue, then release, the controller will become RGB+CCT type, then do smart config by Tuya smart APP, or short press match key to match with RGB+CCT RF remote.

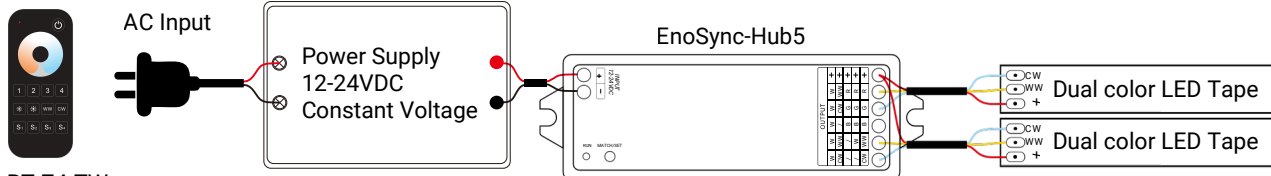
For RGBW



ES-RT-Z4-RGBW

Press and hold match/set key for 14s, until the RUN LED indicator turn green, then release, the controller will become RGBW type, then do smart config by Tuya smart APP, or short press match key to match with RGBW RF remote.

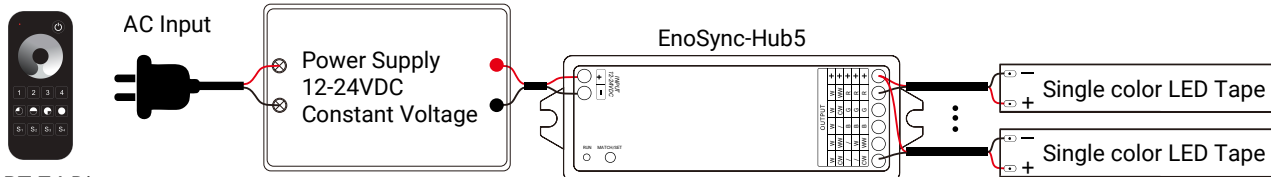
For CCT



ES-RT-Z4-TW

Press and hold match/set key for 10s, until the RUN LED indicator turn yellow, then release, the controller will become TW type, then do smart config by Tuya smart APP, or short press match key to match with TW RF remote.

For Single Color



ES-RT-Z4-Dim

Press and hold match/set key for 8s, until the RUN LED indicator turn white, then release, the controller will become DIM type, then do smart config by Tuya smart APP, or short press match key to match with dimming RF remote.

Note:

1. Press and hold Match/Set key for 2s, switch 5 kinds light type in sequence.
2. For RGB+CCT or TW 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.

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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.

- **APP Pairing Network**

Push twice Match/Set key fastly, or when press and hold Match/Set key for 8-16s to set 5 kinds light type:

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

Press and hold Match/Set key for 2s:

Switch 5 kinds light type in sequence, notice this operation does not automatically clear previous network connection.

Press and hold Match/Set key for 5s:

Clear previous network connection, enter WiFi config mode, the LED indicator flash fastly.

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

If Tuya Smart APP network connection succeed, the RUN LED indicator will stop flash, and turn corresponding light type color (White: DIM, Yellow: TW, Green: RGBW, Blue: RGB+CCT). and in Tuya Smart APP, you can find RGB+CCT device (or other DIM, TW, or RGBW).

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.



Smart Life



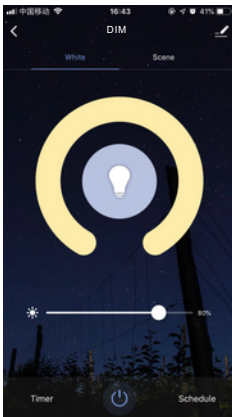
Tuya Smart

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Tuya Smart APP Interface

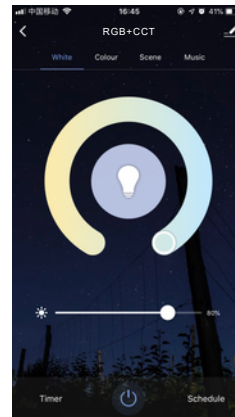


White interface

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.

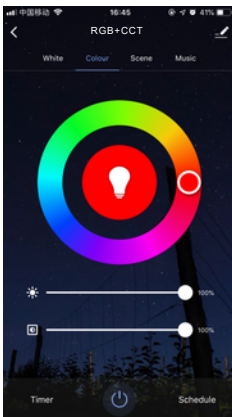
For RGBW type:
Touch brightness slide, adjust white channel brightness.



Color temperature interface

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

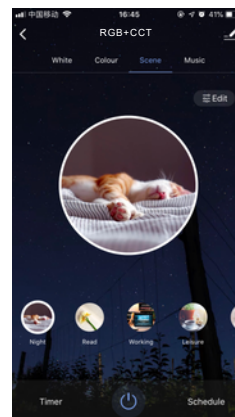
For RGB+CCT type: Touch color wheel to adjust color temperature, RGB will turn off automatically. Touch brightness slide to adjust white brightness.



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).

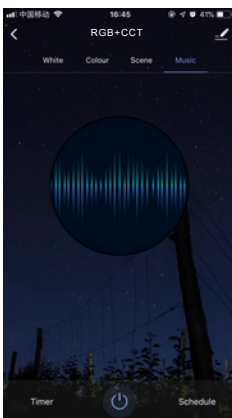
For RGB+CCT type:
Touch color wheel to adjust static RGB color, WW/CW will turn off automatically. Touch brightness slide to adjust color brightness. Touch saturation slide to adjust color saturation, namely gradient from the current color to white (RGB mixed).



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 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.

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EnoSync Series Smart LED Controller Match Remote Control (Optional)

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

Use the EnoSync Series Smart LED Controller's Match key

Match:

Short press match key of EnoSync Series Smart LED Controller, 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 EnoSync Series Smart LED Controller for 20s, The LED indicator fast flash a few times means all matched remotes were deleted.

Use Power Restart

Match:

Switch off the power of EnoSync Series Smart LED Controller, 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 EnoSync Series Smart LED Controller, 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.

EnoSync Series Smart LED Controller Work as WiFi-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 smart 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 smart 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 smart APP. The light blinks 5 times means match was deleted.

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Dynamic Mode List

For RGBW:

No.	Name
1	RGB jump
2	RGB smooth
3	6 color jump
4	6 color smooth
5	Yellow cyan purple smooth

No.	Name
6	RGB fade in and out
7	Red fade in and out
8	Green fade in and out
9	Blue fade in and out
10	White fade in and out

For RGB+CCT:

No.	Name
1	RGB jump
2	RGB smooth
3	6 color jump
4	6 color smooth
5	Color temperature smooth

No.	Name
6	RGB fade in and out
7	Red fade in and out
8	Green fade in and out
9	Blue fade in and out
10	White fade in and out

Statement

FCC ID Statement:

Mobile

RF Exposure Information

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.