# WiFi & RF Synchronous 4 CH LED Controller

UV4-T(WT) a010130



- 4-in-1 function, suitable for RGB, RGBW, color temperature or single color LED strips.
- 4-channel constant voltage PWM output, maximum 8A output current per channel.
- DIP switch set master or slave mode,
  4 light types (DIM/CCT/RGB/RGBW),
  - 4 output PWM frequency (500Hz/2000Hz/8000Hz/16000Hz).
- 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.
- Voice control, support for Amazon Alexa, Google Assistant, Tmall Genie and Xiaodu smart speakers.
- Match with RF 2.4G remote controller optional.
- When used as an RGB/RGBW LED controller, built in 10 RGB dynamic mode, including jump or gradual change style.
- The master and slave communication adopts RJ45 interface and complies with DMX512 standard protocol.
- The slave can also use a 4-channel DMX512 decoder with 16-bit decoding.
- Over-heat / Over-load / Short circuit protection, recover automatically.



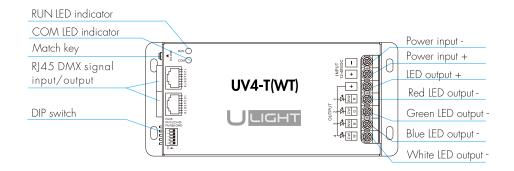
# C€ RoHS RED

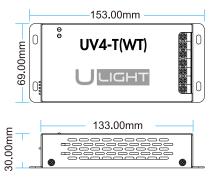
#### **Technical Parameters**

| Input and Outpu | t                          | Dimming data     |                               |  |
|-----------------|----------------------------|------------------|-------------------------------|--|
| Input voltage   | 12-48VDC                   | Input signal     | WiFi + RF 2.4GHz              |  |
| Input current   | Max 32.5A                  | Output signal    | DMX512 (4 CH, 16 Bit)         |  |
| Output voltage  | 4 × (12-48)VDC             | Control distance | 15m(Barrier-free space)       |  |
| Output current  | 4x8A@12/24V<br>4x6A@36/48V | Dimming gray so  | cale 65536 levels             |  |
|                 |                            | Dimming range    | 0-100%                        |  |
|                 | 4x96W@12V                  | PWM Frequency    | / 500Hz/2000Hz/8000Hz/16000Hz |  |
| Output power    | 4x192W@24V<br>4x216W@36V   |                  |                               |  |
|                 | 4x288VV@48V                | Package          |                               |  |
| Output type     | Constant voltage           | Size             | L156.5 x W72 x H34mm          |  |
|                 |                            | Gross weight     | 0.34kg                        |  |

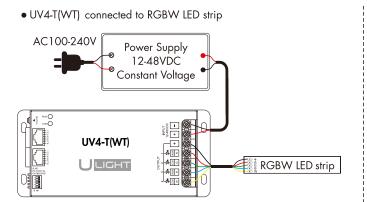
| Safety and EMC          |   |
|-------------------------|---|
| EMC standard            | ETSI EN 301 489-1 V2.2.3<br>ETSI EN 301 489-17 V3.2.4 |
| Safety standard         | EN 61347-1:2015+A1:2021<br>EN 61347-2-13:2014+A1:2017 |
| Radio Equipment         | ETSI EN 300 328 V2.2.2                                |
| Certification           | CE RED  |
| Warranty                | 5 years   |
| Environment             |   |
| Operation temperature   | Ta: -20 °C ~ +50 °C                                   |
| Case temperature (Max.) | Tc: +80°C   |
| IP rating               | IP 20   |

### Mechanical Structures and Installations

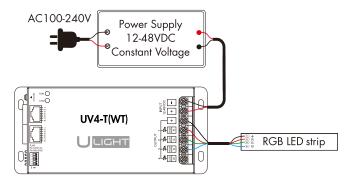




# Wiring Diagram



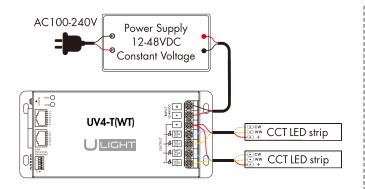
• UV4-T(WT) connected to RGB LED strip

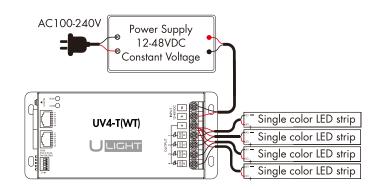




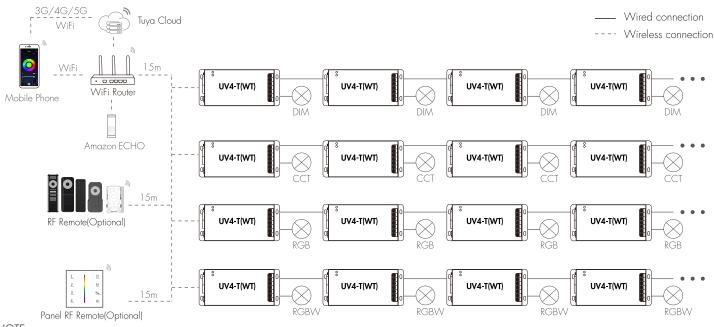
• UV4-T(WT) connected to CCT LED strip

• UV4-T(WT) connected to single color LED strip





# 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 UV4-T(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.

### **DIP Switch Setting**

• DIP switch 1 set the master or slave mode.

| 1<br>↓on  |        |       |
|-----------|--------|-------|
| Work mode | Master | Slave |

• DIP switch 2-3 set the light type.

| 2 3 NON    |     |     |     |      |
|------------|-----|-----|-----|------|
| Light type | DIM | ССТ | RGB | rgbw |

• DIP switch 4-5 set the PWM frequency.

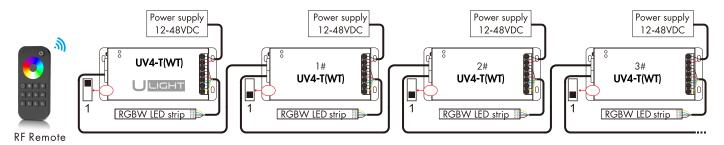
| 4 5 ton       |       |      |      |       |
|---------------|-------|------|------|-------|
| PWM frequency | 500Hz | 2KHz | 8KHz | 16KHz |
| lout (12-24V) | 4×8A  | 4×8A | 4×5A | 4×5A  |
| lout (36-48V) | 4×6A  | 4×6A | 4×4A | 4×4A  |

#### NOTE:

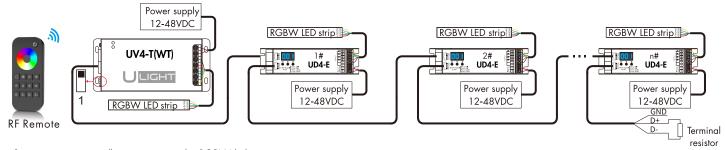
- 1. When using multiple controllers at the same time, only one controller can be set to the master, and the other controllers should be set to the slave mode.
- 2. The Master controller sets the lighting type, controls 4 channels of constant voltage output, and outputs 4 channels of 16-bit DMX data.
- 3. The slave controller doesn't need to set the lighting type and receives 4 channels of 16-bit DMX data from master controller for controlling the 4 channels of constant voltage output.
- 4. The master and slave controllers can select the same or different PWM frequency.
- 5. Generally, set the UV4-T(WT) controller as the master and the other UV4-T controllers as slaves.

# **Application Examples**

1. One UV4-T(WT) controller as a master and multiple UV4-T controllers as slaves for synchronized control.



- Set UV4-T(WT) controller to master mode, RGBW light type. Set other UV4-T controllers (1#,2#,3#...) to slave mode.
- Master controller: RUN indicator and COM indicator are always on. RUN indicator flash when master controller receives the RF signal.
- Slave controller: RUN indicator is always on, COM indicator is always off.
  COM indicator flash when the RJ45 port receives the DMX data.
- 2. One UV4-T(WT) controller as master and multiple 4-channel DMX512 decoders as slaves for synchronized control.



- Set UV4-T(WT) controller to master mode, RGBW light type.
- For all 4-channel DMX512 decoders, set the start decoding address to 001 and 16 bit decoding.
- Master controller: RUN indicator and COM indicator are always on. RUN indicator flash When master controller receives the RF signal.
- Slave decoder: When the RJ45 port receives the DMX data, the digital display 001 is always on; When the RJ45 port doesn't receive the DMX data, the digital display 001 is flashing.

#### NOTE:

- 1. If more than 32 slaves are connected, or if extra-long signal wires are used, a DMX signal amplifier needs to be connected, and the signal should not be amplified more than five times.
- 2. If overshoot effect happens due to long signal wires or poor wire quality, please connect a 0.25W 90-120 $\Omega$  terminal resistor at the end of each DMX signal wire.

### Master Controller Match With RF Remote

### There are two ways to match/delete:

### Use Match key

Match:

Short press match key, immediately press on/off key (single zone remote) or zone key (multiple zone remote) of the remote.

The RUN indicator blinks means match is successful.

#### Delete

Press and hold match key for 10s to delete all match, The RUN indicator blinks means all matched remotes were 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.

# RGB/RGBW lighting dynamic mode (RF remote control)

| 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 |



### 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

Press and hold Match key for 2s, push twice Match key fastly, or change the 4 light types by DIP switch: Clear previous network connection by these three ways, enter Smart config mode, the RUN LED indicator flash fastly.

Press and hold Match key for 5s:Clear previous network connection, enter AP config mode, the RUN LED indicator flash slowly. If Smart config failed, please try AP config.

Repeat power off and on for 5 consecutive times fastly, also clear previous network connection, enter Smart config mode.

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









Smart Life

Tuya Smart

# Tuya Smart APP Interface



#### White interface

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.



#### Color 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).

**Note:** For RGBW type, when touching the color wheel to adjust the static RGB color, the "W"channel will be turned off automatically.



### Scene interface

The 1-8 scene can be edited.

3 ways of color change can be set: static, jump, gradual change.

The color change speed can be set for the jump and gradual change.



# Music Sync, Timer, Schedule

The music sync 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.