# GLEDOPTO®

# Tuya SPI Pixel Controller
# RGBCCT/RGBW/RGB

Tuya ZigBee Hub Require

## User Instruction
GL-SPI-206P

# Product Parameter

Model No.: GL-SPI-206P

Input Voltage: DC 5-12-24V

Total Output Current: 15A Max

Output Signal: SPI(TTL)×2  800Kbs

Pixels：1000 Max

Protocol: ZigBee+2.4G RF

Material: Flame Retardant PC

Protection Rate: IP20

Temperature: -20~45℃



# Button Functions

## Opt:

1. Short press: Turn lights on/off.
2. Double short press: Cycle through lighting dynamic effects (Total 24 dynamic modes).
3. Triple short press: Toggle power–on memory function, the connected strip flashes once to confirm. (Default is memory off. The power–on memory function determines whether the controller remembers its on/off state before power loss).
4. Long press: Reset the controller—clear Wi–Fi network and RF remote pairing and return to initial factory settings. (Indication: strip flashes **five** times, then the status LED blinks).
    Initial settings are:
    1. Chip type: WS2811;  2. Color order: RGB;  3. Number of chips: 60.

## Push:

1. Short press: Turn lights on/off.
2. Double short press: Cycle through lighting dynamic effects (Total 24 dynamic modes).
3. Long press: Adjust brightness (holding increases brightness; after release, holding again decreases brightness).

When turning off the light via the APP, remote control, or PUSH switch, the power supply to the output terminal will be cut off to save energy. It should be noted that this function cannot deactivate the supplementary power supply.

**Low power consumption**

# Wiring Diagram



V+
DI
GND
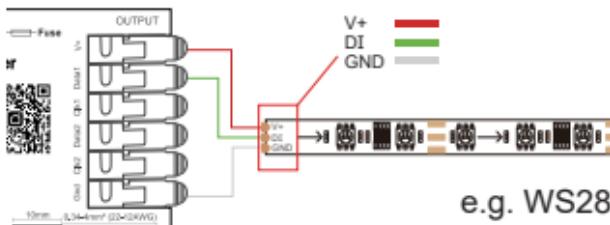
e.g. WS2811 strip wiring



V+
DI
CI
GND
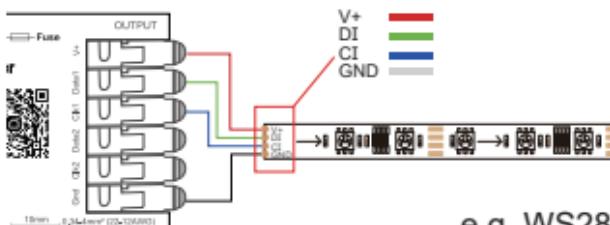
e.g. WS2801 strip wiring



V+
DI
BI
GND
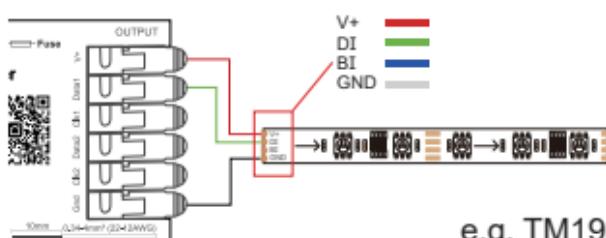
e.g. TM1934A strip wiring

# Indicator Light Status



Flashing: Not Connected to Network
Steady On: Connected to Network

# Configuration Steps

**ZigBee Configuration Steps:**

1. Power on the controller.
2. Open the Smart Life APP, then tap on "Smart Gateway" and subsequently click on "Add Sub-device".
3. Follow the instructions in the APP to add the controller to the gateway.
4. Once the addition is successful and the indicator light stops flashing, you can start using the controller.



# Supported Chips

Select the corresponding chip model based on the LED strip connected to the output terminal. The default chip type is WS2811.

| Chip model | Compatible chip models |
|------------|------------------------|
| WS2801 | WS2803 |
| LPD6803 | LPD1101,D705,UCS6909,UCS6912 |
| LPD8803 | LPD8806 |
| WS2811 | TM1804,TM1812,UCS1903,UCS1909, UCS1912,SK6813,UCS2903,UCS2909, UCS2912,TM1809,WS2812,WS2813, WS2815,SM16703P,GS8206 |

| Chip model | Compatible chip models |
|---|---|
| TM1814B(RGBW) | / |
| TM1934A | / |
| SK6812(RGBW) | UCS2904(RGBW),SM16704(RGBW) |
| SK9822 | / |
| UCS8904B(RGBW) | / |
| WS2805(RGBCCT) | / |

# APP Function

### 1. Chip Quantity

Configure the appropriate number of chips
based on the connected LED strips.
• The controller defaults to 60 chips;
• The minimum quantity of chips set is 10;
• The maximum quantity of chips set is 1000.



Note:
1. When the set length of the light strip is less than the actual length of the
   light strip in pixels, the rear part of the light strip will not be controllable.
2. When the selected dynamic mode cycle running interval is too long, please
   reset the correct pixel length.
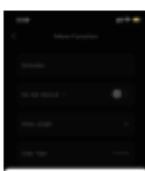


### 2. Color Order Configuration

Select the correct color order according to the connected
light strips, and adjust R/G/B on the control interface to
check whether the color is correct. If not, select the
correct color combination according to the specific status.

**RGB Strips:** RGB, RBG, GRB, GBR, BRG, BGR
**RGBW Strips:** RGBW, RBGW, GRBW, GBRW, BRGW, BGRW
　　　　　　　 WRGB, WRBG, WGRB, WGBR, WBRG, WBGR
Note: WS2805 is fixed color order of GRBWC.
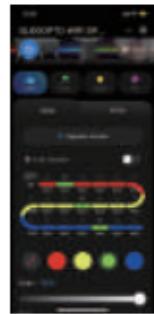
### 3. Segment Control

Divide the LED strip into 20 segments for individual dimming and color adjustments.

Note:
1. In the APP, a light strip has 20 fixed segments, and the length of the light strip (total number of pixels) / 20 segments = the number of pixels in each segment.
2. The length of the light strip can be set to a maximum of 1000 pixels. For example, a light strip with a length of 5 meters and 60 pixels per meter can be set to 300 pixels. The entire light strip is divided into 20 segments, with 15 pixels in each segment.
3. When the length of the light strip is less than or equal to 20 pixels, such as 10-20, each pixel corresponds to each segment from the beginning.
4. When the length of the light strip is not an integer multiple of 20, the remainder will display the color of the last segment.
5. When the actual length of the light strip is not an integer multiple of 20, it is recommended to set the length of the light strip longer and increase the setting value to a multiple of 20.
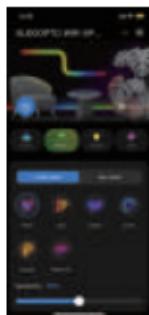
### 4. Music

Local Music

Capture the sound near the controller's built-in microphone to create rhythmic lighting effects, with the following six rhythmic modes available:

1. Rock 2. Jazz 3. Classic 4. Scroll 5. Energy 6. Spectrum

App Music

Capture the sound near the phone's microphone to create rhythmic lighting effects, with the following three rhythmic modes available:

1. Brilliant 2. Soft 3. Dynamic

## 5. Scenes

There are over 40 different scenes available, allowing you to choose various scenarios based on different situations.
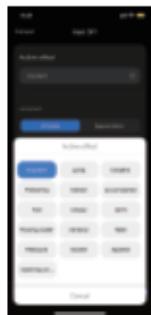
## 6. DIY

Create custom effects using 16 dynamic effect options. You can adjust the speed, color, etc. in each dynamic mode.
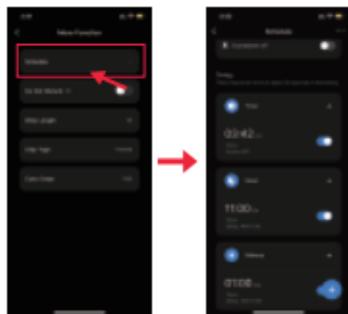
## 7. Schedule

1. Countdown to turn off lights
2. Customize the time (up to 24 hours) to customize the light on/off status
3. Have light wake-up and light sleep functions

## 8. Do Not Disturb

Have Do Not Disturb function, usually used for power failure area to save power
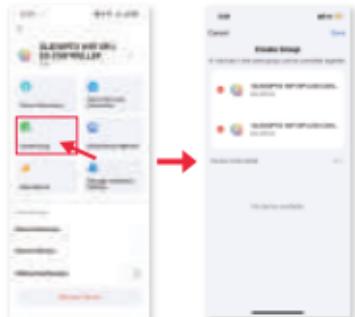
## 9. Group Control

1. Click the "···" in the top-right corner on the control interface;
2. Click "Create Group";
3. Add the devices that require synchronized control to the group, and then click "Save".

# RF remote configuration

## Pairing:

**Any zone "On"**

**Short press once
(Power on the device, within 4s)**

① Turn off the controller, then power on after 10 seconds.

② Within 4 seconds of powering on, press the "On" button of any group on the RF remote control (check the user manual of each remote control for details).

③ When the light strip connected to the controller flashes three times, it indicates successful connection with the remote control

## Unpairing:

① Turn off the controller, then power on after 10 seconds.

② Within 4 seconds of powering on, press the "Master On" button on the RF remote control or press the "On" button of the controller's group 5 times.

③ When the light strip connected to the controller flashes 5 times, it indicates that the connection with the remote control has been disconnected

Method 1:

**MASTER "On"**

**Short press for 5 times
(Power on the device, within 4s)**

Method 2:

**"On" button
of Zone 1-8
which is
pairing**

**Short press for 5 times
(Power on the device, within 4s)**

# Remote Control Mode

Using the remote control, you can adjust 24 color-changing modes.

### GL–RC–002:

Left button: Switch to the previous mode
Right button: Switch to the next mode
Up button: Brightness +
Long press Up button: CCT -
Down button: Brightness -
Long press Down button: CCT +
Long press Left button: Speed +
Long press Right button: Speed -
Long press Total On button: Return to the first mode

### GL–RC–006:

"☽" button: Switch to the previous mode
"M" button: Switch to the next mode
Long press "M" button: Return to the first mode

### GL–RC–009

"W" button: Switch to the previous mode
"M" button: Switch to the next mode
Long press M button: Return to the first mode

Note: Remote-control unit not included

**Attention**

1. Before turning on the power, please ensure that all connections are correct and secure, and do not operate while the power is on.
2. The product should be used under the rated voltage. Using it under excessive or insufficient voltage may cause damage.
3. Do not disassemble the product, as it may cause fire and electric shock.
4. Do not use the product in environments exposed to direct sunlight, moisture, high temperatures, etc.
5. Do not use the product in metal shielded areas or around strong magnetic fields, as this may severely affect the wireless signal transmission of the product.

## Disclaimer

1. Due to our continuous adoption of new technologies, product specifications may change without further notice.
2. This manual is provided for reference and guidance only and does not guarantee complete consistency with the actual product. The actual application should be based on the actual product.
3. The components and accessories described in this manual do not represent the standard configuration of the product. The specific configuration is subject to the packaging.
4. All text, tables, and images in this manual are protected by relevant national laws and may not be used without our permission.