GLEDOPTO®

Zigbee + RF Digital RGB Strip Controller
User Instruction

PRO

1.Features

1. The controller is ideal for the popular 3-wire digital RGB strip, support upto 300 ICs. It's controlled by zigbee gateway or remote control for on/off, brightness dimming, color changing and built-in 9 dynamic modes.
2. Detect the ICs automatically to match the different size of digital strips.
3. The OPT Key can set the right RGB sequence to match any different type of digital strips.
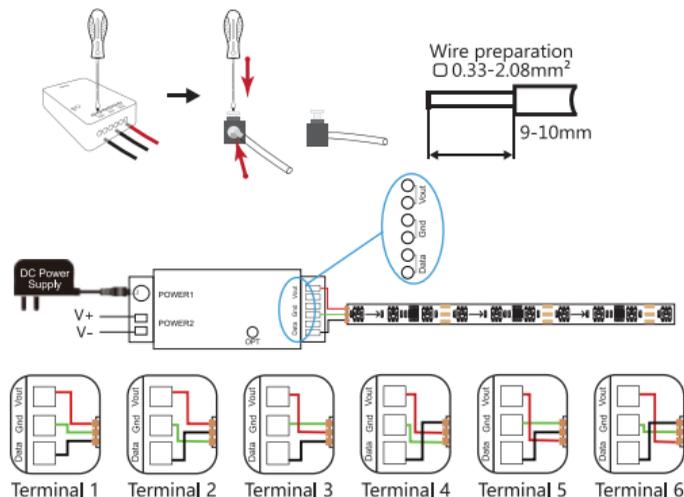
2.Technical Parameter

Model: GL-C-103P

Voltage: DC 5-24V

Current: 10A Max.

Pixel ICs: 300 Max.

Operating temperature: -20℃-45℃

Compatible ICs: SM16703P / FW1935 WS2811 / WS2812, etc.

3.Wiring Diagram

Wire preparation □ 0.33-2.08mm²

9-10mm

DC Power Supply

POWER1
POWER2

V+
V−

Terminal 1 Terminal 2 Terminal 3 Terminal 4 Terminal 5 Terminal 6

4.Functional Specifications

4.1Key Functions

4.1.1 Switching Mode

Under the power-on state, short press the "OPT"button, the digital strip will enter the dynamic mode. Each one short press switches to the new mode.
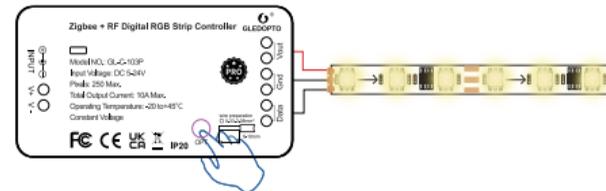
4.1.2 Set the right RGB sequence

Long press the "OPT" key for 3s, then release to enter the RGB sequence setting, the beginning 3 ICs of the strip will light up respectively, it's correct if it is RGB in sequence. Otherwise, short press the "OPT" Key to set the right RGB in sequence. Then long press for 3s to exit the setting.
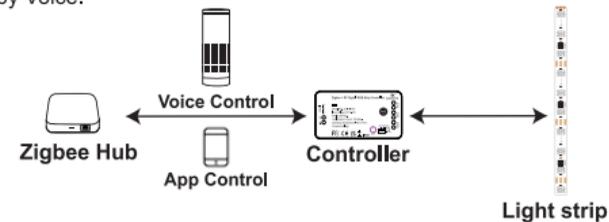
4.1.3 Reset

Long press "OPT" key for 8s, the RGB strip blink 3 times with full brightness to return on the saved state, then turn RGB full brightness again. All information are cleared, including APP access, remote control pairing, the setting RGB sequence and the saved color brightness.
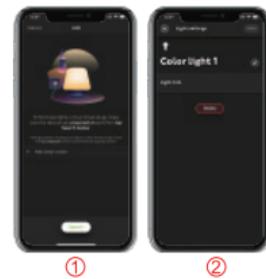
4.2 Zigbee Control

Connect to the Zigbee bridge, it can be controlled by App, by Voice.

Voice Control

Zigbee Hub   Controller

App Control

Light strip

①Link: Search the light with 90s since the light is powered on, the light flash twice at full brightness to pair successfully.

②Deletion: The operation must be under the controller power-on state, delete successfully when the light strip flash 3 times to turns on red, green and blue full bright.

①   ②

③Switch Mode:
At zigbee mode, the "identify" command is also used to switch dynamic mode, Switch into 1 mode per 1 "identify" command sending(Click the Product Name to to trigger the "identify" command).

③

Speed adjustment: At Zigbee control, it can adjust the speed at the CCT tunable interface, the CCT value is higher, the speed is going up.

4.3 RF Remote Control

RF remote control the on/off, color changing, brightness and dynamic mode.
Pairing: Press the Group"ON" key 1 time within 4 seconds after the controller power on, the 2nd sequence leds turn on.

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

Un-pairing: Press the "ON" key 5 times within 4 seconds after the controller is powered on, the light strip flash 3 times.

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

4.4 ICs Detection

After power on, the controller detect the ICs automatically, the digital strip turn on quickly from the first IC to the last IC in turn, then return to the power off state to finish the detection.

4.5 Dynamic Mode

Mode 1: Color Marquee

The single pixel is default, the light turns on from the 1st pixel to

the end in sequence at red, green, blue, yellow, purple, light blue, white, then repeat.

After color changed by remote or App, it turns on from the 1st pixel to the end, then repeat.

Mode 2: Color Flowing

The RGB color is default, Red, Green, Blue color is lighting the whole strip one by one, then repeat.

After color changed by remote or App, it's lighting the new color sequence, then repeat.

Mode 3: Color Fade-in/out

The RGB color(9 pixels) is default, the brightness is going gradient , fade-in/out from left to right, then repeat.

Mode 4: Color Chasing

The color is chasing from the beginning to the end with the sequence Red, Green, Blue, Yellow, Purple, Light Blue, White, then repeat.

Mode 5: Color Flame

The Orange color is default, the brightness is random for flame.

After color changed by remote or App, it turns on the new color then repeat.

Mode 6: Color Bang

The color is blasting from the mid to the two sides in color sequence Red, Green, Blue, Yellow, Purple, Light Blue, White, then repeat.

After color changed by remote or App, it turns on the new color then repeat.

Mode 7: Color DJ

The color is lighting at random.

After color changed by remote or App, the led strip turns on static mode with the present color.

Mode 8: Color Rainbow

It's default the RGB color gradient & color float from the beginning to the end.

After color changed by remote or App, it turns on the new color then repeat.
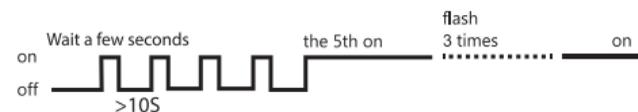
Mode 9: Color Flicker

The 16 million color is changing and flickering alternately.

After color changed by remote or App, it turns on the new color flicking and repeat.

4.6 Reset Method

1. Long press the "OPT" Key over 8s to reset, refer to the term 4.1.3.

2. Delete the led light on App, after the deletion, then turn to reset automatically.

3. Power on and power off 5 times continuously, reset successfully.

Step 1. Power on.

Step 2. Power off after the ICs detection completion.

Step 3: 10s waiting time.

Step 4: Repeat 5 times for the above Step1 to Step 3, the led lights flash 3 time then turn bright fully. Reset successfully.

5.DIY solution

5.1 Mode command

Use the "identify" command for mode change, switch into 1 mode per 1 "identify" command sending.

Cluster ID: 0x0003 identify

Command ID: 0x00 identify

5.2 Speed command

Use the "move to color temperature" command, the value of CCT is on behalf of the Speed, the value of CCT is going higher, the speed is going up.

Cluster ID: 0x0300 Color control

Command ID: 0x0A move to color temperature

Colortemperature：from 153-500（speed from 10-1）

6.Compability Chart

Item \ Gateways	Philips Hue ①	Amazon Echo Plus ②	Smart Things ③	Conbee ④	Homey ⑤	Homee ⑥
RGB	Yes	Yes	Yes	Yes	Yes	Yes
Switch Mode	Yes	No	No	No	No	No

✱✱✱

①②③④⑤ are already tested by GLEDOPTO, ⑥are from our customers, just for your information,not verified by GLEDOPTO.