GLEDOPTO GL-C-001P

GLEDOPTO 5 in 1 Zigbee3.0 LED Strip Controller User Manual

Model: GL-C-001P | Brand: GLEDOPTO

1. Introduction

The GLEDOPTO 5 in 1 Zigbee3.0 LED Strip Controller is a versatile device designed to control various types of LED strips, including monochrome, warm white-cold white (CCT), RGB, RGBW, and RGBCCT. It supports 12V, 24V, 36V, 48V, and 54V LED strips with common anode, offering a maximum of 15 amps and 6A per channel. This controller provides flexible control options via app, voice commands, and 2.4G RF remote control, allowing for 16 million colors and adjustable color temperature and brightness. It also features adjustable PWM frequency to prevent flickering and power supply noise.

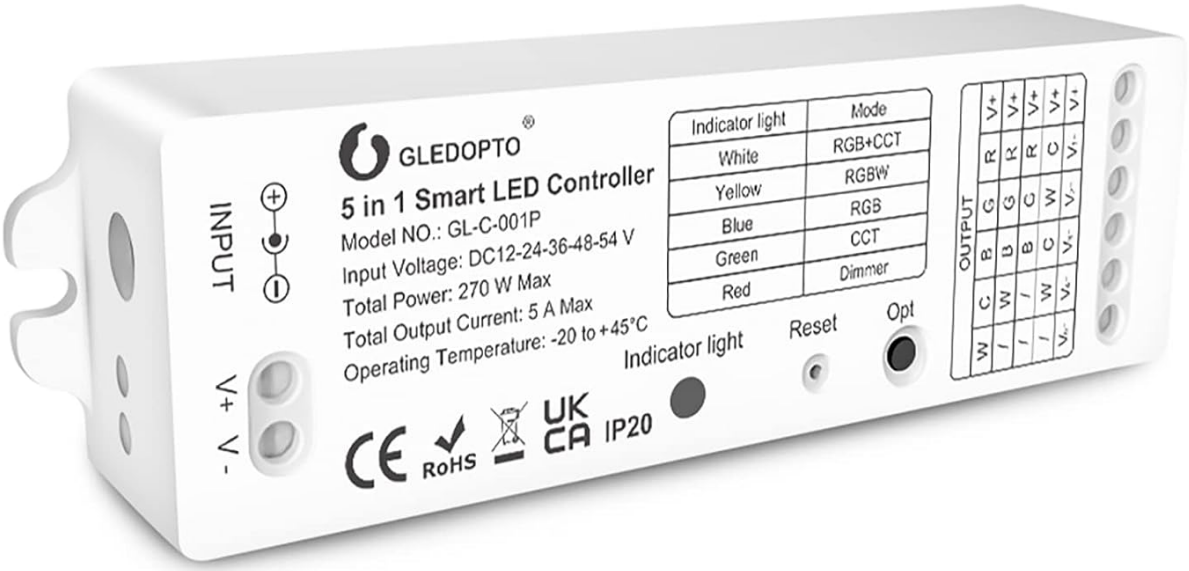


Figure 1: GLEDOPTO 5 in 1 Smart LED Controller (Model: GL-C-001P)

2. Package Contents

Upon opening the package, please verify that all items listed below are present and in good condition:

- 1 x 5 in 1 Smart LED Controller
- 1 x Packing Box
- 1 x User Manual
- 1 x 3cm Sticker



Figure 2: Contents included in the product package.

3. Setup

3.1 Wiring Diagram

The GLEDOPTO 5 in 1 LED Controller supports various LED strip configurations. Ensure correct wiring based on your LED strip type (RGBCCT, RGBW, RGB, CCT, or Dimmer). Use a screwdriver to secure the wires into the appropriate terminals on the controller. Always ensure the power supply is disconnected before wiring.

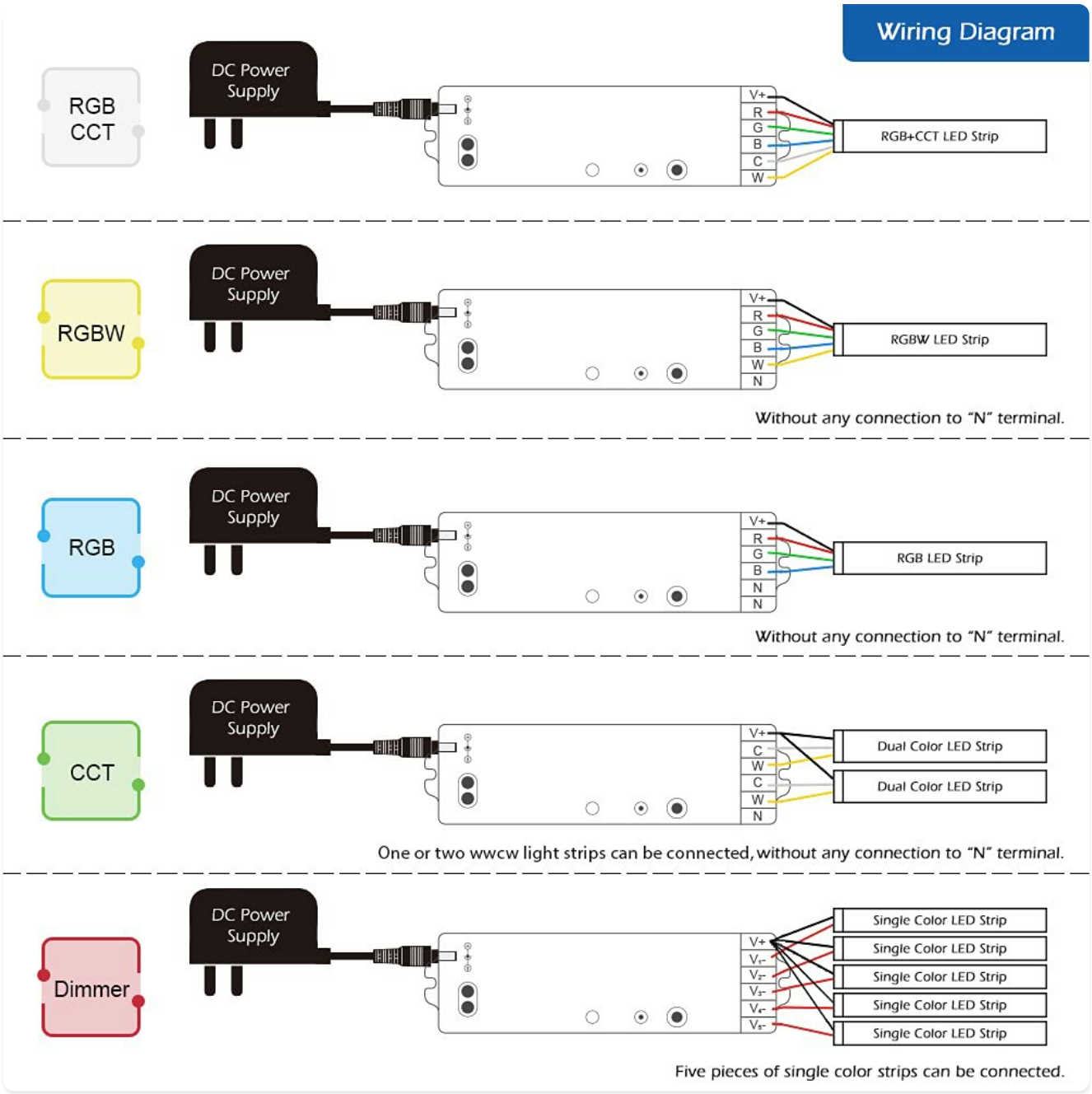


Figure 3: Detailed wiring diagrams for RGBCCT, RGBW, RGB, CCT, and Dimmer LED strips.

3.2 Network Pairing (Zigbee)

To integrate your GLEDOPTO controller with a Zigbee gateway (e.g., Philips Hue, SmartThings), follow these general steps:

1. **Power Your Light Sources:** Connect the LED strip to the controller and the controller to a compatible power adapter. Ensure the correct mode is selected on the controller (see Section 4.1).
2. **Set Up Your Bridge:** Plug in your Zigbee bridge/gateway and ensure it is powered up and connected to your Wi-Fi router.
3. **Download the Gateway App:** Install the official app for your Zigbee gateway (e.g., Philips Hue app) on your smartphone.
4. **Complete the Setup and Control the Lights:** Open the app, navigate to the 'Add lights' or 'Search for lights' section. The app will search for new devices. Once found, you can configure and control the light's color, color temperature, and brightness. If the device is not found, try power cycling the controller or performing a reset.



Figure 4: Visual guide for the four-step setup process.

Video 1: This video demonstrates the unpacking, wiring, and network pairing process for the GLEDOPTO 5 in 1 LED Controller with a Zigbee hub. It shows how to connect the LED strip, power the device, and then use a smartphone app to search for and configure the new light, including changing colors and brightness.

4. Operating the Controller

4.1 5-in-1 Mode Switching

The controller features five distinct modes: RGBCCT, RGBW, RGB, CCT, and Dimmer. Each mode is indicated by a different color on the controller's indicator light. To switch between modes, short press the "Opt" button once. Ensure the correct mode is selected to match your LED strip type for optimal performance.



Figure 5: The controller's indicator light colors correspond to different functions (RGBCCT, RGBW, RGB, CCT, Dimmer).

4.2 App Control

Once paired with your Zigbee gateway, you can control the LED strip using the corresponding smartphone application. This allows for comprehensive control over color (16 million options), color temperature, and brightness. Simply open the app, select your light, and use the intuitive interface to adjust settings.



Figure 6: Example of smartphone app control for color and brightness adjustment.

4.3 Voice Control (Amazon Alexa)

The controller is compatible with Amazon Alexa, allowing for convenient voice control. After successful pairing with your Zigbee hub and linking it to your Alexa account, you can use voice commands to turn lights on/off, adjust brightness, and change colors or color temperature.



Figure 7: Voice control functionality with Amazon Echo Plus.

4.4 2.4G RF Remote Control

In addition to Zigbee control, the Pro series controllers include two radio modules, enabling control via a simple 2.4G RF remote control (GLEDOPTO or MiLight/MiBoxer compatible). This provides an alternative control method, including saturation control functionality.



Figure 8: Remote control options for the LED controller, including saturation control.

4.5 Frequency Settings

The controller allows you to adjust the PWM frequency to match different power supplies and reduce potential noise or flickering. Available frequencies include 600Hz, 800Hz, 1000Hz (default), 2000Hz, 4000Hz, and 8000Hz. To switch the frequency, short press the "Reset" key once. The indicator will flash white and then return to its previous color after 2 seconds, confirming the change.

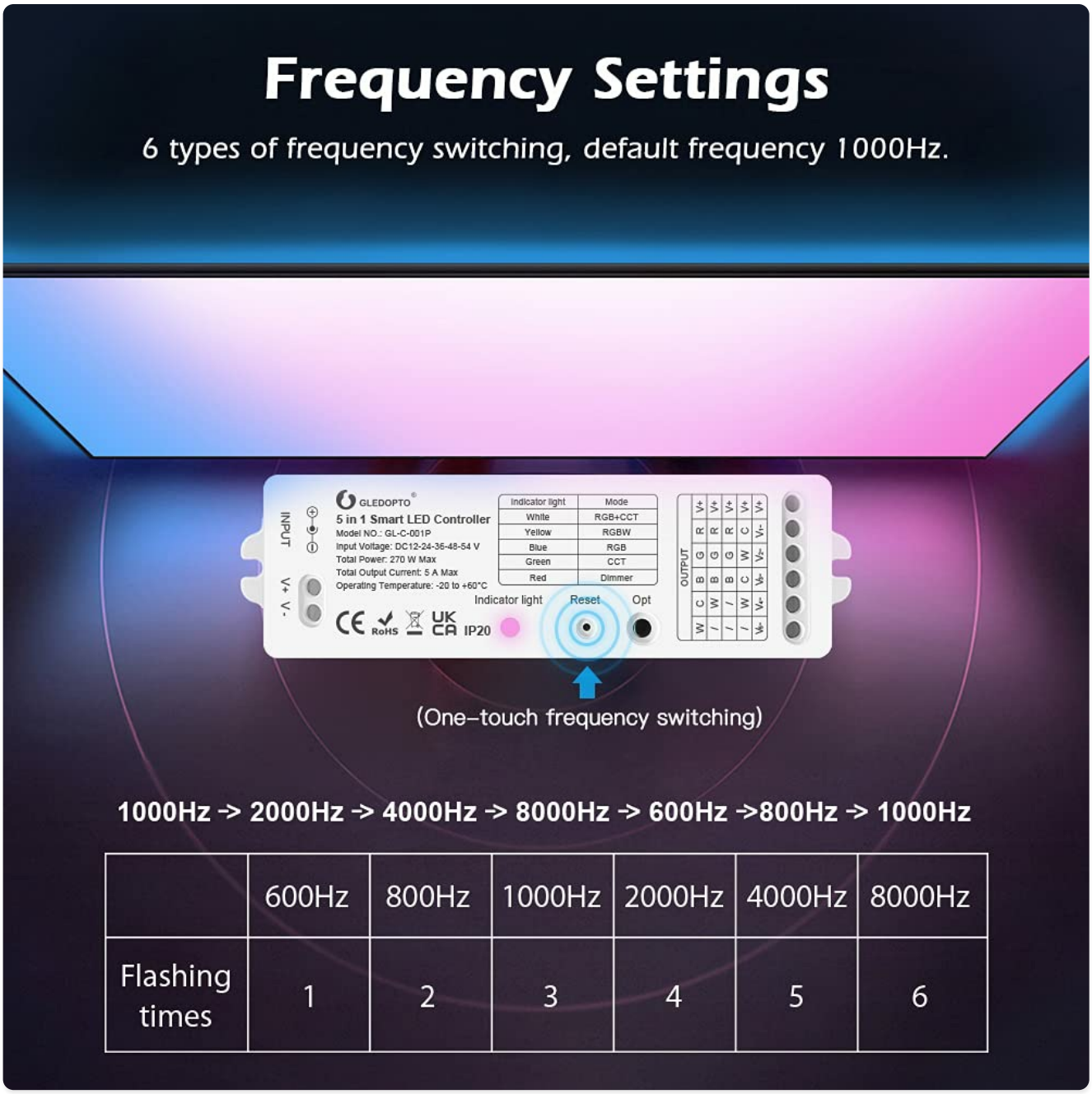


Figure 9: Adjustable PWM frequency settings to optimize performance and reduce noise.

4.6 Power-on Status Settings

You can configure the controller's behavior after a power outage. The device can be set to either turn "ON" or remain "OFF" when power is restored. To adjust this setting, long press the "Opt" key for more than 5 seconds. The indicator light will flash either 3 times (for "ON" status) or 4 times (for "OFF" status) to confirm the setting.

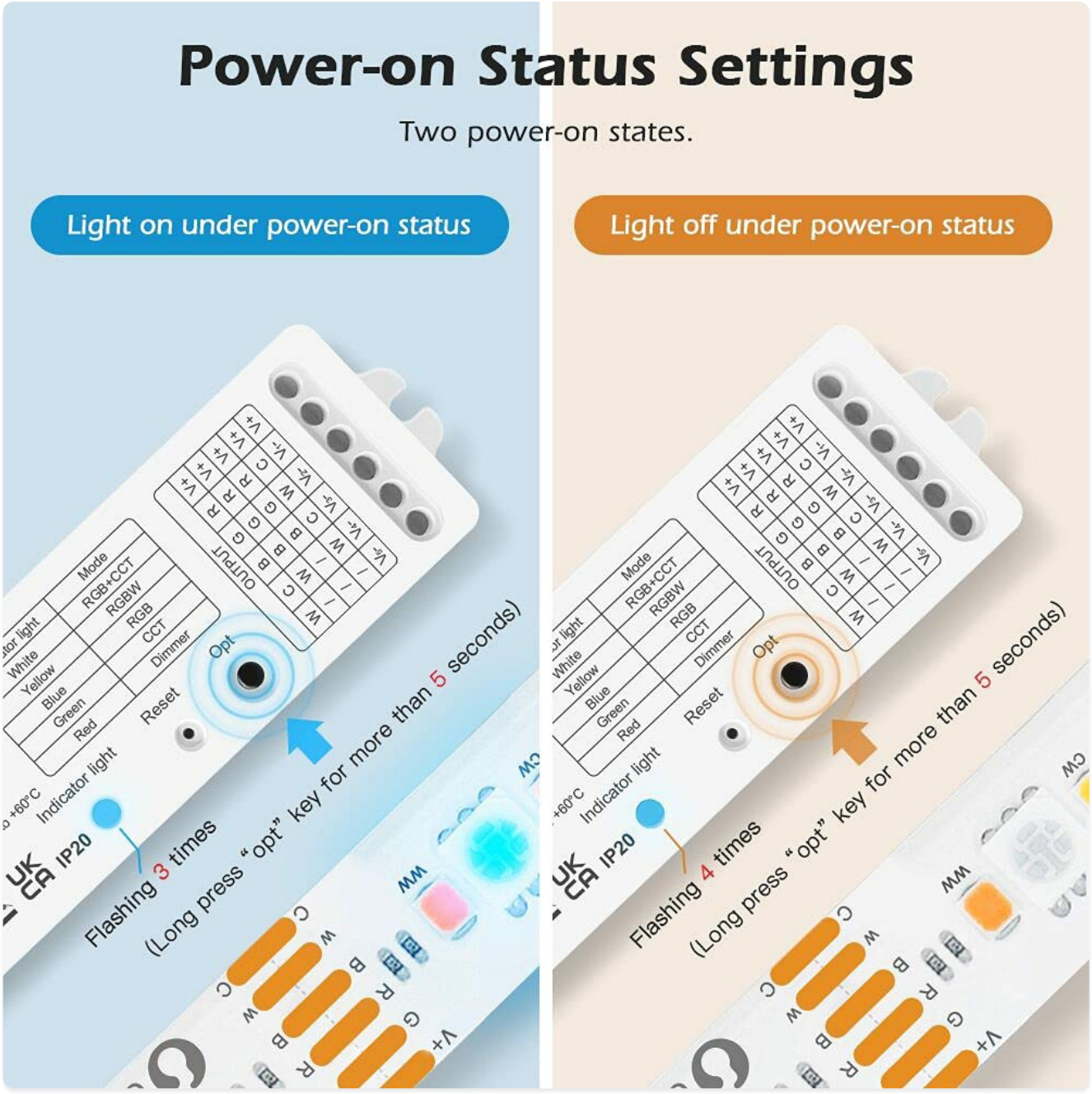


Figure 10: Options for setting the power-on behavior of the LED controller.

5. Maintenance

To ensure the longevity and optimal performance of your GLEDOPTO LED Strip Controller, follow these maintenance guidelines:

- Keep the controller clean and free from dust. Use a soft, dry cloth for cleaning.
- Avoid exposing the device to excessive moisture, extreme temperatures, or direct sunlight.
- Do not attempt to open or modify the controller, as this will void the warranty and may cause damage.
- Ensure proper ventilation around the controller to prevent overheating.

6. Troubleshooting

If you encounter issues with your GLEDOPTO LED Strip Controller, please refer to the following common troubleshooting steps:

- **Light not turning on:** Check all power connections. Ensure the power adapter is functioning and the LED strip is correctly wired to the controller. Verify the controller is receiving power.
- **Not responding to control:** Ensure the controller is properly paired with your Zigbee gateway or RF remote. Try power cycling the controller (disconnect and reconnect power). If using a Zigbee hub, try re-searching for the device in the app.
- **Flickering or noise:** Adjust the PWM frequency setting on the controller (see Section 4.5) to find a frequency that minimizes flickering or noise with your power supply.
- **Incorrect colors or modes:** Verify that the controller's 5-in-1 mode is correctly set to match your LED strip type (see Section 4.1).
- **Limited range:** Ensure the controller is within range of your Zigbee gateway or RF remote. Obstructions can affect signal strength.

If problems persist after attempting these steps, please contact GLEDOPTO customer support for further assistance.

7. Specifications

Feature	Specification
Product Dimensions	4.72 x 1.46 x 0.94 inches; 3.53 ounces
Input Voltage	12V, 24V, 36V, 48V, 54V
Total Power Max	270 W Max
Total Output Current	5 A Max
Current Rating (per channel)	6A (as per feature bullets)
Operating Temperature	-20 to +60°C
Compatibility	Zigbee3.0, SmartThings, Amazon Alexa, 2.4G RF Remote Control
Supported LED Strip Types	RGBCCT, RGBW, RGB, CCT, Dimmer
PWM Frequency Options	600Hz, 800Hz, 1000Hz, 2000Hz, 4000Hz, 8000Hz (Default: 1000Hz)
Common Anode	Yes

8. Warranty and Support

GLEDOPTO products are designed for reliability and performance. For information regarding product warranty, technical support, or service, please refer to the warranty card included in your package or visit the official GLEDOPTO website. Keep your purchase receipt as proof of purchase for warranty claims.
For the latest updates, FAQs, and additional support resources, please visit the GLEDOPTO official support page or contact their customer service directly.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question