BTF-LIGHTING C04Z

BTF-LIGHTING Tuya Zigbee 3.0 C04Z RGBW LED Controller User Manual

Model: C04Z

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your BTF-LIGHTING Tuya Zigbee 3.0 C04Z RGBW LED Controller. This device is designed to control PWM RGBW 5-wire LED strips, offering smart home integration and versatile lighting control. Please read this manual thoroughly before use to ensure proper functionality and safety.

2. PRODUCT FEATURES

- **RGBW 5-Wire LED Strip Control:** Compatible with PWM RGBW 5-wire LED strips such as FCOB, COB, 5630, 5730, 5050SMD, and 3528SMD.

- **Wide Voltage Compatibility:** Supports DC5V, DC12V, and DC24V power inputs.

- **High Output Capacity:** Provides 6A per channel with a total maximum output of 15A. Max wattage: 75W (DC5V), 180W (DC12V), 360W (DC24V).

- **Zigbee 3.0 Connectivity:** Seamless integration with Zigbee 3.0 compatible gateways.

- **Smart Home Compatibility:** Supports Echo Plus, Echo (4th Gen), and Home-Kit Gateway. Works with general Zigbee bridges.

- **Voice Control:** When connected via a Tuya Bluetooth/WiFi Dual-Mode Gateway, supports third-party voice control platforms like Amazon Alexa and Google Home.

- **Auto-Transmitting Function:** Extends the App control range by transmitting signals to other controllers within 99 feet (30 meters), allowing for unlimited control distance with proper placement.

- **Auto-Synchronization Function:** Enables multiple controllers to operate synchronously under the same App, dynamic mode, and speed, even if activated at different times.

- **Advanced App Functions:** Includes Group Control, Device Sharing, Tap-to-Run automation, Dual White color temperature adjustment (Warm White and Cool White), and a Memory function that retains settings after power loss.

3. SAFETY INFORMATION

- Ensure the input voltage of the controller matches the power supply and the LED strip (e.g., use a DC12V power supply for a DC12V LED strip). Mismatched voltages can damage the device and LED

strip.

- This device is designed for indoor use only. Avoid exposure to moisture, extreme temperatures, or direct sunlight.
- Disconnect power before making any electrical connections or performing maintenance.
- Do not exceed the maximum current or wattage ratings of the controller.
- Keep the device away from children.
- If you experience any unusual operation, disconnect power immediately and contact support.

4. PACKAGE CONTENTS

- 1x BTF-LIGHTING Tuya Zigbee 3.0 C04Z RGBW LED Controller
- 1x User Manual

5. SPECIFICATIONS

Parameter	Value
Model Number	C04Z
Input Voltage	DC5V / DC12V / DC24V
Output Current	6A/Channel
Total Output Current	Max 15A
Max Wattage (DC5V)	75W
Max Wattage (DC12V)	180W
Max Wattage (DC24V)	360W
Working Temperature	-25°C to 45°C
Dimensions	3 x 1.4 x 0.7 inches
Weight	1.13 ounces
Control Method	App Control, Voice Control
Special Features	Support Home-Kit, PWM RGBW LED Strip, Zigbee 3.0 gateway
Usage Environment	Indoor use only

6. SETUP AND INSTALLATION

Follow these steps to set up your BTF-LIGHTING C04Z RGBW LED Controller. Ensure all power is disconnected before making any connections.

6.1. Wiring Diagram

The C04Z controller features screw terminals for input power and output to the RGBW LED strip. A small straight-slot screwdriver is required for secure connections.

Input Terminals: Connect your DC power supply to the 'INPUT' terminals. Ensure correct polarity: '+' to '+'

and '-' to '-'.

Output Terminals: Connect your RGBW 5-wire LED strip to the 'OUTPUT' terminals. Match the wires from your LED strip to the corresponding terminals on the controller:

- **V+:** Common positive wire from the LED strip.
- **R:** Red channel wire.
- **G:** Green channel wire.
- **B:** Blue channel wire.
- **W:** White channel wire.

Image: BTF-LIGHTING C04Z RGBW LED Controller. This image displays the controller with its input and output screw terminals clearly labeled for power and LED strip connections.

Image: RGBW Color 5 Pin LED Parameters. This diagram illustrates the typical wiring configuration for RGBW LED strips, showing the common positive (V+) and individual color channels (R, G, B, W).

6.2. Step-by-Step Connection Guide

Please connect the LED product to the power supply after installing it near your Zigbee Gateway.

1. **Power Your Light Sources:** Connect the LED strip to the controller's output terminals as described in the wiring diagram. Then, connect the power supply to the controller's input terminals.

2. **Set Up Your Bridge/Gateway:** Plug in your Zigbee bridge or Tuya Bluetooth/WiFi Dual-Mode Gateway. It will automatically power up. Connect it to your WiFi router using the network cable provided (if applicable).

3. **Download and Connect to the App:** Download the appropriate smart home app (e.g., Tuya Smart Life). Start the device searching function on your Zigbee Light Link Gateway or within the app.

4. **Search Lights in the App:** It may take some time for the device to be discovered. If the gateway does not find the device, power the controller off/on five times to reset it and re-initiate the pairing process.

Image: Four Easy Steps. This graphic visually guides users through the process of powering the LED strip, setting up the gateway, downloading the app, and searching for lights within the app.

6.3. Pairing Instructions

To pair the controller with your Zigbee network:

- Ensure your Zigbee gateway is powered on and in pairing mode.

- Short press the **SET** button on the C04Z controller four (4) times in quick succession. The LED strip connected to the controller may flash to indicate it has entered pairing mode.

- Follow the instructions in your Zigbee hub's application to complete the device discovery and pairing process.

Your browser does not support the video tag.

Video: Zigbee LED strip controller setup. This video demonstrates the physical connection of the LED strip and power supply to the controller, followed by the pairing process with a Zigbee gateway and control via a smartphone application, showcasing color and brightness adjustments for various LED strip types.

7. OPERATING INSTRUCTIONS

Once paired, you can control your LED strip using the compatible smart home application (e.g., Tuya Smart Life) or voice commands through integrated platforms.

7.1. App Control

The smart home application provides comprehensive control over your LED lighting:

- **Color Selection:** Adjust the color of your RGBW LED strip using a color wheel or predefined color palettes.

- **Brightness Adjustment:** Dim or brighten the LED strip to your desired level.

- **Dual White Control:** For RGBW strips, adjust the white light from warm white to cool white.

- **Group Control:** Group multiple BTF-LIGHTING controllers together to control them simultaneously.

- **Device Sharing:** Share control of your lighting with family members or other authorized users.

- **Tap-to-Run & Automation:** Create custom scenes and automated routines based on schedules, environmental conditions, or other smart devices.

- **Memory Function:** The controller retains the last lighting state after a power cycle.
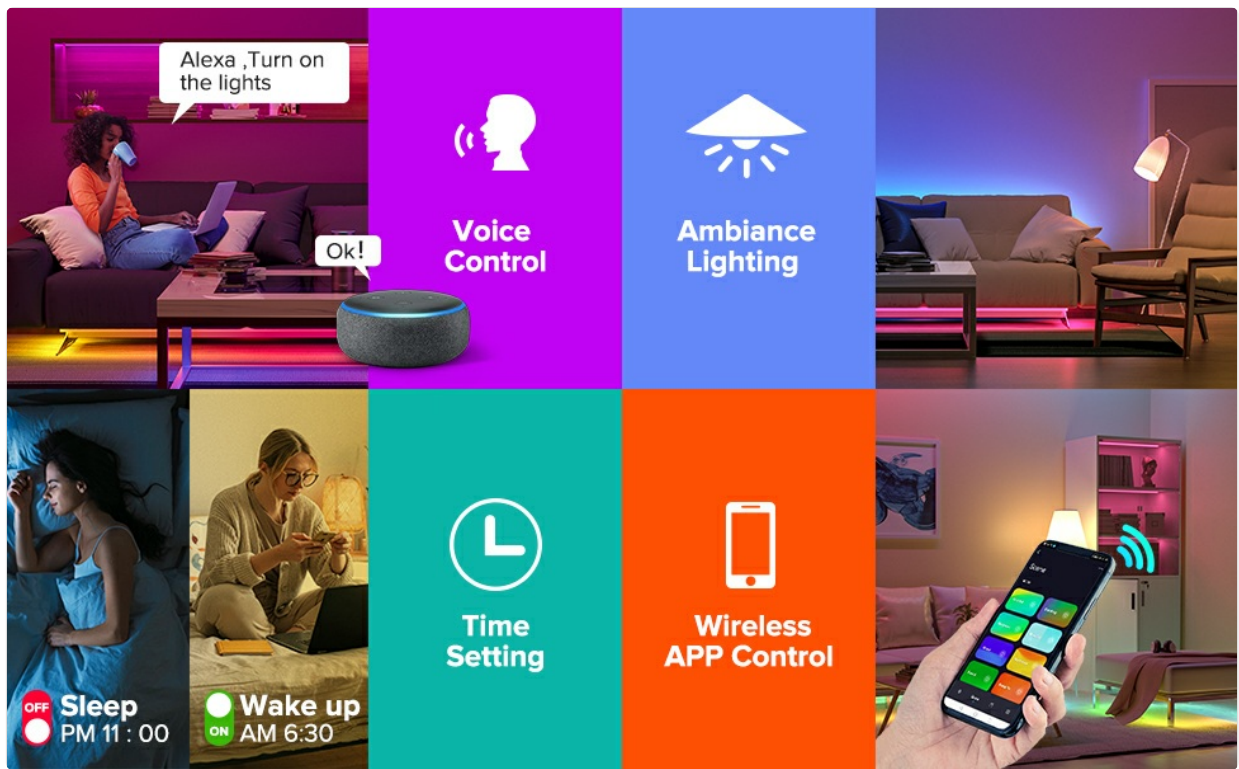
Image: App Interface and Features. This image displays a smartphone app interface showing options for voice control, ambiance lighting, time setting, and wireless app control, illustrating the various functionalities available.

7.2. Voice Control

If connected through a Tuya Bluetooth/WiFi Dual-Mode Gateway, you can use voice commands with Amazon Alexa or Google Home. Ensure your gateway is linked to your voice assistant account.

- **Example Commands:**

  - "Alexa, turn on the [Light Name]."
  - "Hey Google, set [Light Name] to red."
  - "Alexa, dim [Light Name] to 50%."

7.3. Auto-Transmitting and Auto-Synchronization

These features enhance the scalability and coordination of your lighting system:

- **Auto-Transmitting:** The controller can relay App signals to other controllers within a 99-foot (30-meter) radius. This extends the effective control distance of your smart home network.
- **Auto-Synchronization:** When multiple controllers are set to the same dynamic mode and speed within the same App, they will synchronize their operations, providing a unified lighting experience.
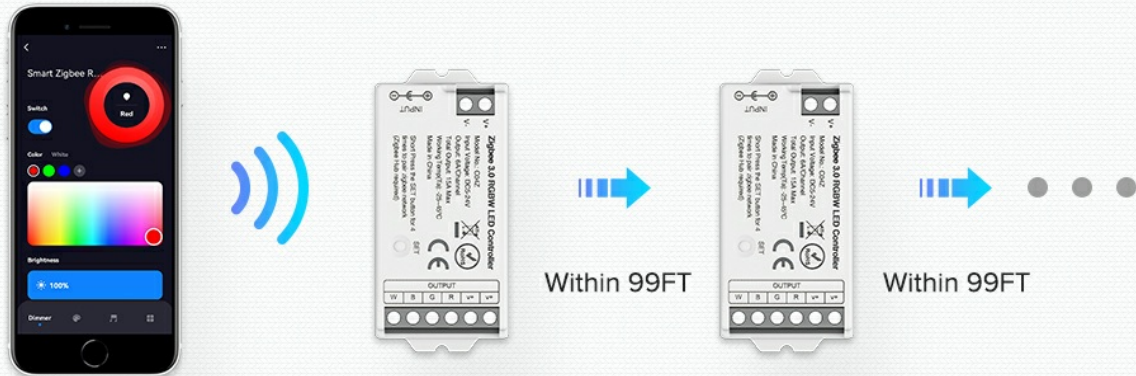
Image: Signal Auto-Transmitting and Mode Auto-Sync Function. This diagram visually explains how the controller can transmit signals to other controllers within 99 feet, enabling extended control distance and synchronized lighting effects.

8. MAINTENANCE

The BTF-LIGHTING C04Z LED Controller requires minimal maintenance.

- **Cleaning:** Use a soft, dry cloth to clean the surface of the controller. Do not use liquid cleaners or solvents.

- **Environment:** Ensure the controller is kept in a dry environment and within its specified operating temperature range (-25°C to 45°C).

- **Connections:** Periodically check all wiring connections to ensure they are secure.

9. TROUBLESHOOTING

If you encounter issues with your controller, refer to the following troubleshooting guide:

- **LED Strip Not Lighting Up:**

  - Check all power connections to the controller and the LED strip. Ensure the power supply is functioning.
  - Verify that the input voltage of the power supply matches the requirements of both the controller and the LED strip.
  - Confirm that the LED strip is correctly wired to the output terminals with correct polarity and channel assignments (V+, R, G, B, W).

- **Controller Not Pairing with Gateway:**

  - Ensure the Zigbee gateway is powered on and in pairing mode.
  - Perform the 4-press SET button action on the controller to initiate pairing mode.
  - Try power cycling the controller (disconnect and reconnect power) and then attempt pairing again.

- Ensure the controller is within range of the Zigbee gateway.

- **Incorrect Colors or Unresponsive Control:**

  - Check the wiring of the RGBW channels to ensure they are connected to the correct terminals.
  - Verify that the controller is properly paired and recognized by your smart home app.
  - Restart the smart home application or your Zigbee gateway.

- **Flickering or Unstable Lighting:**

  - Ensure the power supply is adequate for the length and type of LED strip being used. Insufficient power can cause flickering.
  - Check for loose connections at the controller terminals or between the LED strip segments.

- **High-Pitched Noise:** If you experience any unusual high-pitched noise, disconnect power and contact BTF-LIGHTING customer support for assistance.

10. WARRANTY AND SUPPORT

For warranty information, technical support, or further assistance, please refer to the official BTF-LIGHTING website or contact their customer service directly. Keep your purchase receipt for warranty claims.

Related Documents - C04Z

Multilingual Index English————————— P.01 Deutsch———————— P.13 Español———————— P.24 Français———————— P.35 Italiano————————— P.46 Nederlands—————— P.57	[BTF-LIGHTING 5050SMD RGBW LED Strip User Manual](#) User manual for BTF-LIGHTING 5050SMD RGBW 4 Colors in 1 LED Strip, covering product specifications, installation guides, precautions, and troubleshooting. Learn to set up and use your LED lighting.
Multilingual Index English——————— P.1 Deutsch——————— P.15 Español——————— P.27 Français——————— P.39 Italiano———————— P.51 日本語——————— P.63 Nederlands————— P.75	[BTF-LIGHTING FCOB PWM Dimming LED Strip User Manual - Installation, Specifications, and Control](#) Comprehensive user manual for the BTF-LIGHTING FCOB PWM Dimming LED Strip. Covers product specifications, installation guides, control methods, safety precautions, and troubleshooting for versatile LED lighting applications.
Multilingual Index English —————————— P.01 Deutsch —————————— P.14 Español —————————— P.25 Français —————————— P.36 Italiano —————————— P.47 Nederlands ———————— P.58	[BTF-LIGHTING WS2814 IC RGBW Addressable LED Strip User Manual](#) This user manual provides comprehensive details on the BTF-LIGHTING WS2814 IC RGBW Addressable LED Strip, including product specifications, installation guides, precautions, and recommended accessories for optimal use.

[BTF-LIGHTING FCOB PWM RGBW LED Strip User's Manual](#)

User's manual for the BTF-LIGHTING FCOB PWM RGBW LED Strip, detailing product parameters, precautions, controller compatibility, and installation instructions for versatile lighting applications.

[BTF-LIGHTING 5050 SMD RGBW LED Strip User Manual](#)

User manual for the BTF-LIGHTING 5050 SMD RGBW LED Strip, detailing product parameters, installation, precautions, and troubleshooting for optimal lighting solutions.

[BTF-LIGHTING FCOB SPI RGBW LED Strip User Manual](#)

User manual for the BTF-LIGHTING FCOB SPI RGBW LED Strip, detailing product parameters, installation, precautions, and recommended accessories for optimal use.