Saved from manuals.plus.
Open the live page for links to other documents and user manuals.

BTF-LIGHTING FCOB5M24VWS2814RGBWW30

BTF-LIGHTING WS2814 Smart IC RGBW COB LED Strip Light Instruction Manual

Model: FCOB5M24VWS2814RGBWW30

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of your BTF-LIGHTING 16.4FT WS2814 Smart IC RGBW 3000K DC24V COB LED Strip Light. This UL Listed LED strip features 784 LEDs/meter, high density, color chasing capabilities, and uniform light output, ideal for various indoor lighting applications. Please read this manual thoroughly before use to ensure proper functionality and safety.

2. Safety Information

Your BTF-LIGHTING LED strip is UL Listed, ensuring high safety standards. Please observe the following precautions:

- Ensure the power supply voltage matches the LED strip's requirements (DC24V).
- Do not connect the LED strip directly to AC power. A compatible DC24V power supply is required (sold separately).
- Cutting the LED strip compromises its waterproofing. If cutting is necessary for damp areas, reseal the cut ends appropriately.
- Install on clean, dry surfaces to ensure proper adhesion of the 3M tape.
- Avoid bending the strip sharply or applying excessive force, which can damage the internal components.

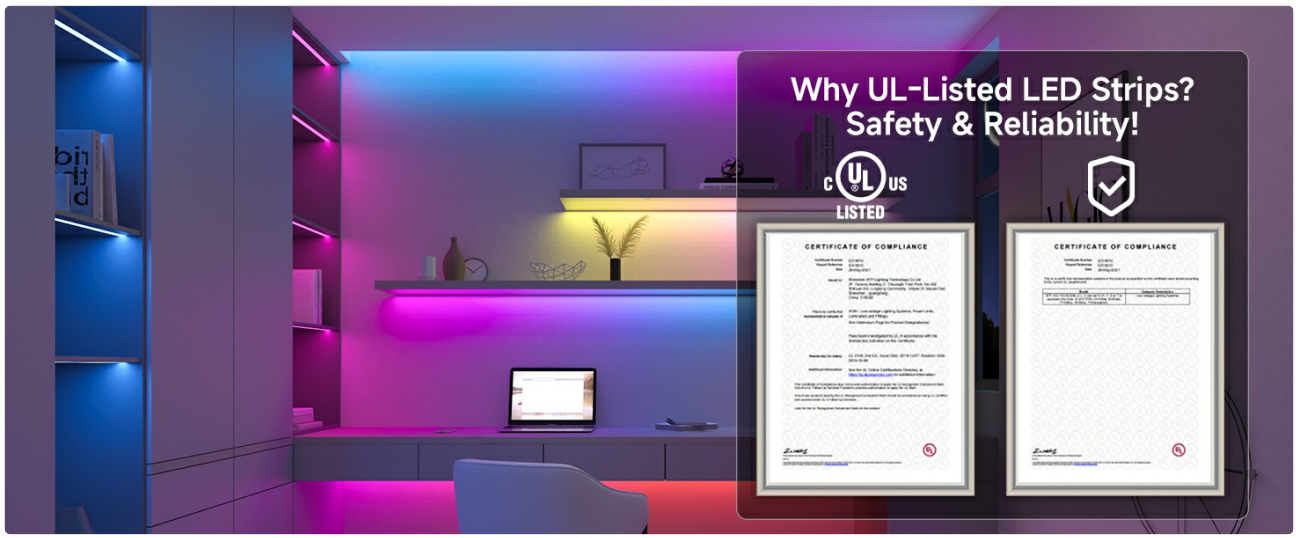


Image: This image highlights the UL Listed certification, emphasizing the safety and reliability of the LED strip. It also shows a certificate of compliance.



Image: This image illustrates the permanent UL Listed mark and UL Recognized Component Mark on the LED strip, indicating compliance with safety standards. It also shows the cuttable segments of the strip.

3. Package Contents

The package includes:

- 1 x 16.4FT FCOB WS2814 RGBW LED Strip Light

Note: A power supply and controller are NOT included and must be purchased separately.

4. Setup and Installation

4.1 Preparation

- Ensure the installation surface is clean, dry, and smooth for optimal adhesion.
- Measure the desired length for your installation.
- Gather necessary accessories: a compatible DC24V power supply, a compatible controller (e.g., Tuya DR04W Wi-Fi, Bluetooth, Alexa, Google Home & RF controllers; BanlanX APP, SP530E, SP630E, SP617E; WLED ESP32 SP803E SP805E), and connectors if extending or reshaping.

4.2 Cutting and Linking

The LED strip is flexible and features cut marks every 2.8 inches (71mm). You can cut the strip at these designated marks to adjust its length. Use connectors (sold separately) to link multiple strips or reshape your layout. Remember to reseal cut ends if the strip is to be used in damp environments to maintain waterproofing.

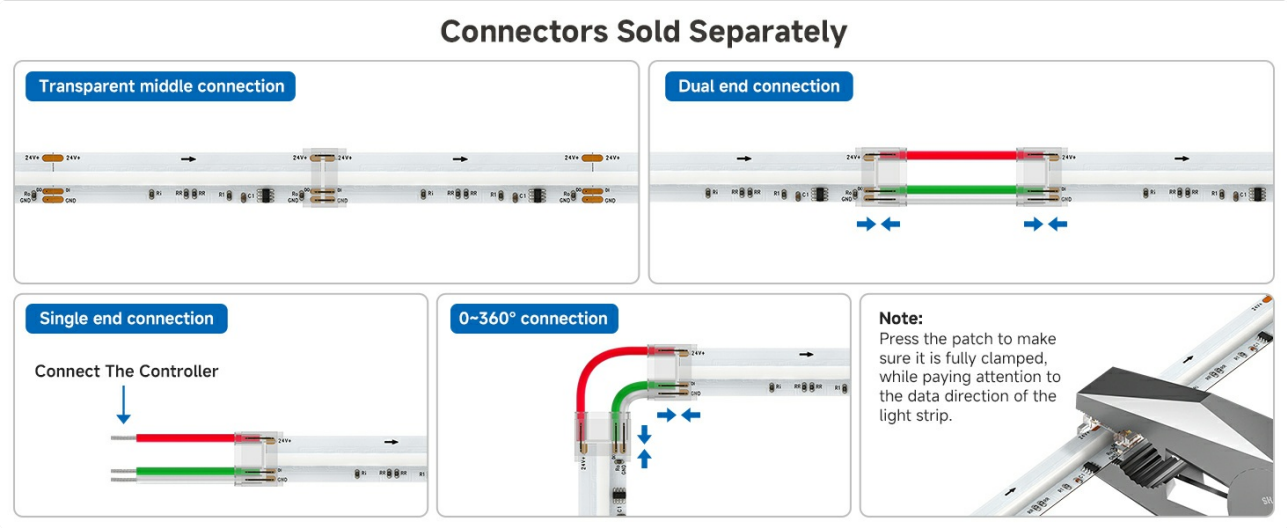


Image: This image shows the LED strip with measurement markings, indicating where it can be cut. It also illustrates the flexibility and double-sided tape for installation.

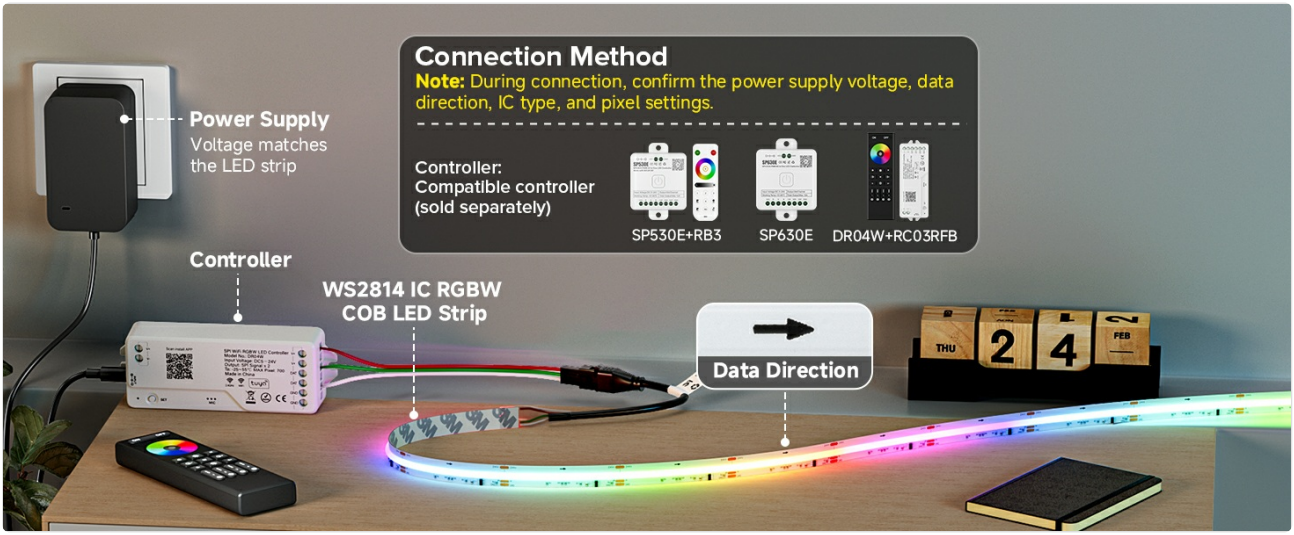


Image: This image displays various types of connectors available for the LED strip, including transparent middle connection, dual end connection, single end connection, and 0-360 degree connection, along with instructions for secure connection.

4.3 Electrical Connection

Connect the LED strip to a compatible controller and a DC24V power supply. Ensure the data direction is correctly aligned. The controller allows for various lighting effects and color adjustments.



Image: This diagram illustrates the connection method for the WS2814 IC RGBW COB LED Strip, showing how to connect the power supply, controller, and LED strip, emphasizing data direction and compatible controllers.

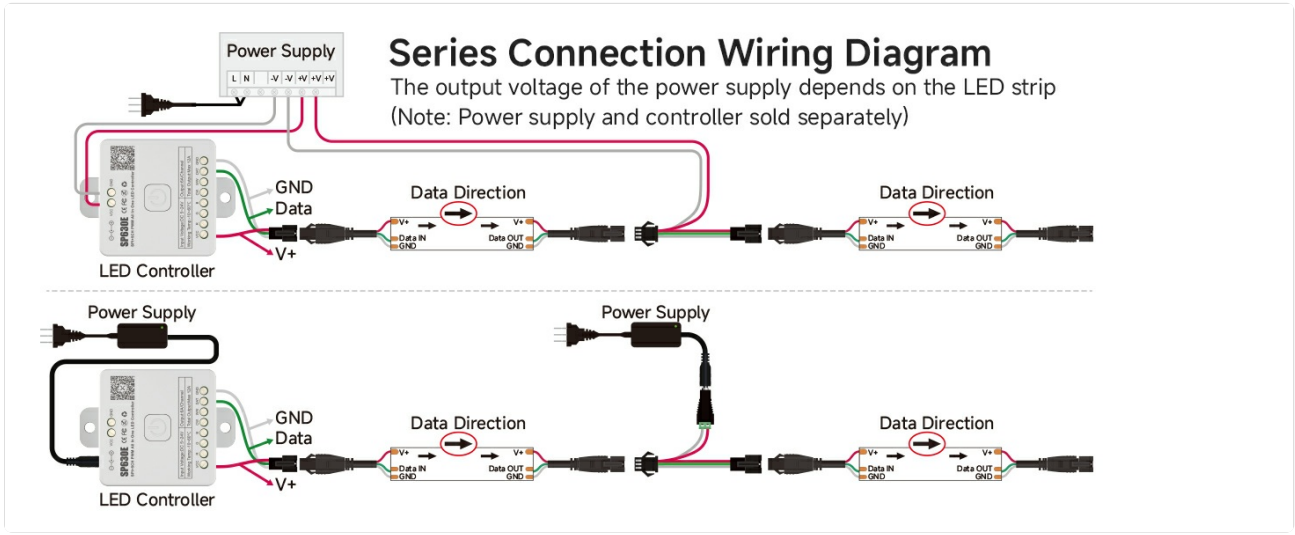


Image: This diagram shows a parallel connection setup for multiple FCOB WS2814 RGBW+IC LED strips, connected to a power supply, controller, and signal amplifier. Power supply and controller are sold separately.

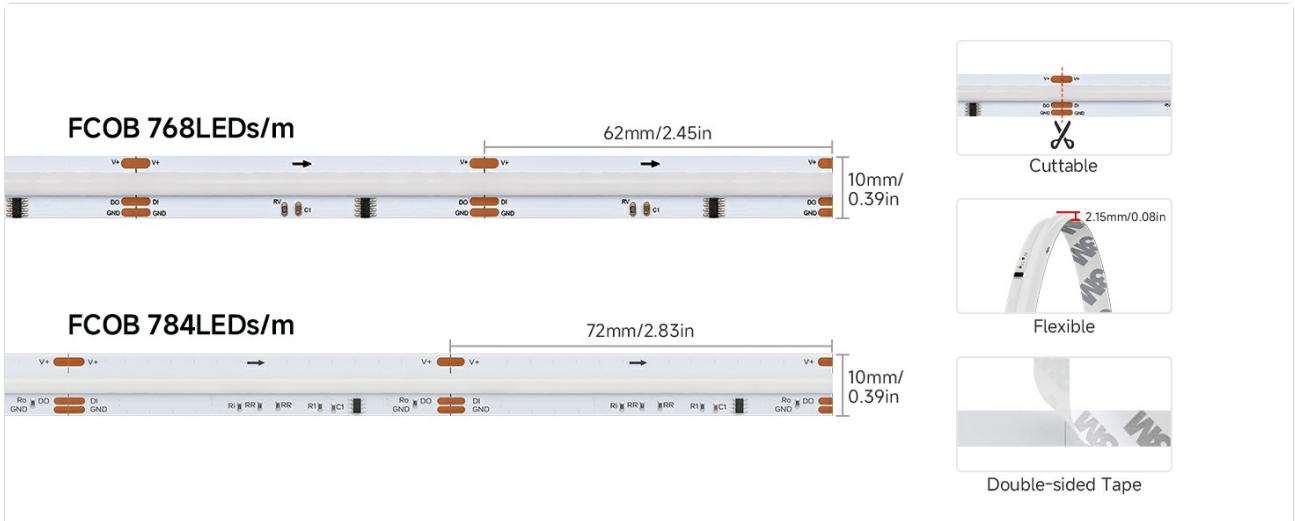


Image: This diagram illustrates two methods for series connection wiring of LED strips, showing how to connect the power supply and LED controller to multiple strips in sequence, highlighting data direction.

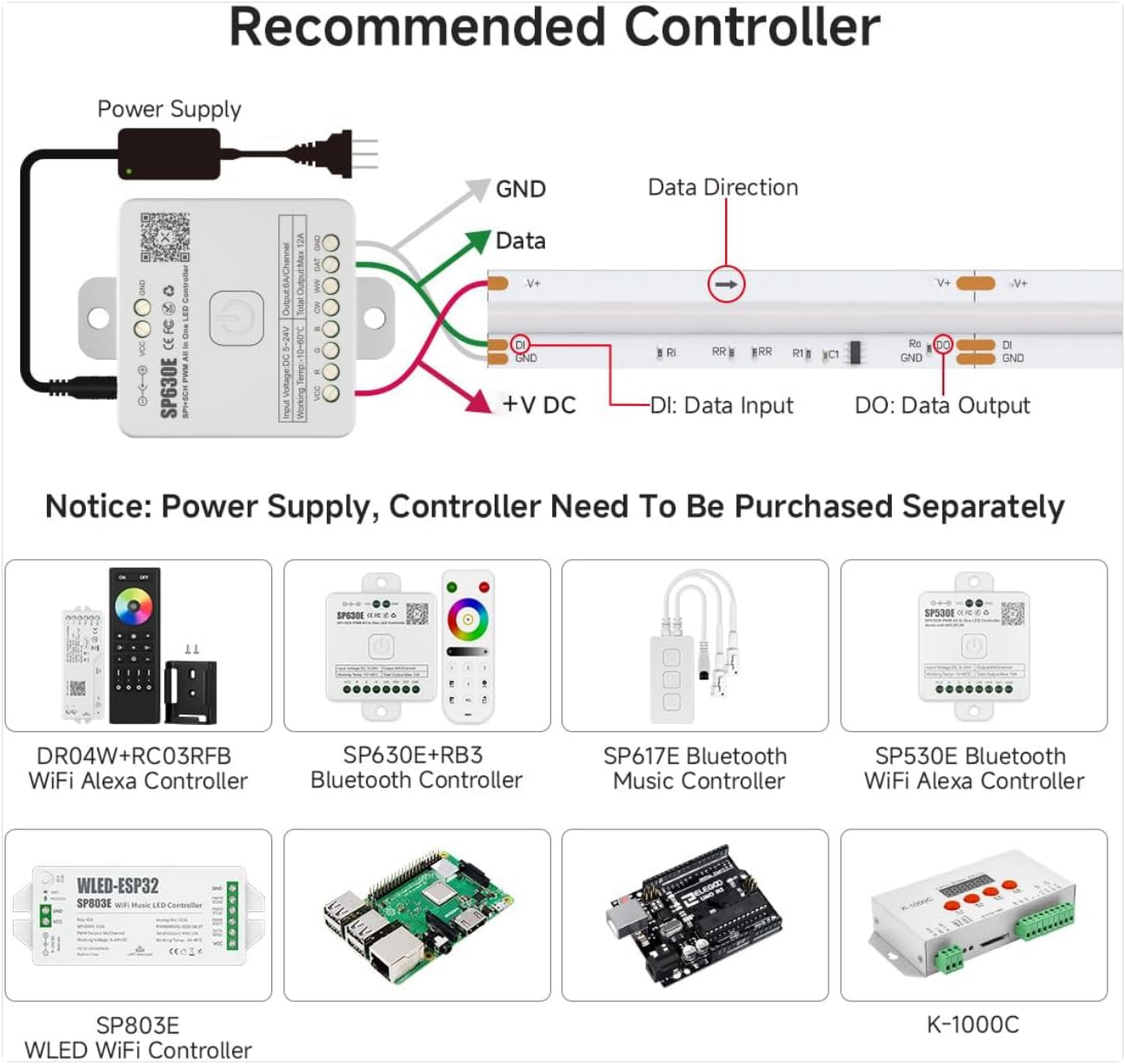


Image: This image displays various recommended controllers for the LED strip, including WiFi, Bluetooth, and RF options, along with development boards like WLED-ESP32, Raspberry Pi, and UNO R3.



Image: This image provides a detailed list of recommended controllers for the LED strip, such as DR04W+RC03RFB WiFi Alexa Controller, SP630E+RB3 Bluetooth Controller, SP617E Bluetooth Music Controller, SP530E Bluetooth WiFi Alexa Controller, WLED SP803E, Raspberry Pi 3, UNO R3, and K-1000C.

5. Operating Instructions

5.1 Power On/Off

Once connected to a power supply and controller, use the controller or associated app to power the LED strip on or off.

5.2 Color and Brightness Adjustment

The WS2814 IC RGBW LED strip offers over 16 million colors and adjustable brightness. Use your compatible controller or smartphone application (e.g., BanlanX APP) to select desired colors, adjust brightness levels, and choose from various dynamic effects.



Image: This image demonstrates the brightness adjustment feature and the capability for 16 million color adjustments, showcasing the versatility of the LED strip's lighting options.

5.3 Chasing Effects

The addressable WS2814 IC allows for real-time synchronized chasing sequences, fading, and gradient effects. The white channel is also addressable for enhanced design flexibility. Explore the various chasing modes

available through your controller or app.



Image: This image illustrates the multi-color chasing effect of the LED strip, along with options for Cool White, Natural White, and Warm White light, demonstrating its dynamic lighting capabilities.

▶ **Watch video online**
FCOB RGBWIC LED Strip

Video: This video demonstrates the dynamic color chasing effects and various lighting patterns achievable with the FCOB RGBWIC LED Strip. It showcases the strip's ability to produce vibrant and synchronized light sequences.

▶ **Watch video online**
FCOB COB WS2814 RGBW LED Strip

Video: This video highlights the features of the FCOB COB WS2814 RGBW LED Strip, including its uniform light output and various color options. It demonstrates the strip's performance in different lighting scenarios.

6. Maintenance

6.1 Cleaning

Gently wipe the LED strip with a dry, soft cloth to remove dust. Do not use harsh chemicals or abrasive cleaners.

6.2 Waterproofing

The LED strip has an IP30 rating, meaning it is not water resistant. Avoid exposure to water or high humidity unless cut ends have been properly resealed for damp area use.

6.3 Longevity

The LED strip is designed for a lifespan of over 65,000 hours, ensuring long-term performance with proper care.

7. Troubleshooting

7.1 No Light Output

- Check if the power supply is correctly connected and providing the correct DC24V output.
- Verify that the controller is properly connected to both the power supply and the LED strip.
- Ensure the data direction on the LED strip is correctly aligned with the controller's output.
- Confirm that the controller is powered on and set to an active lighting mode.

7.2 Incorrect Colors or Effects

- Check the controller settings and ensure the correct IC type (WS2814) and pixel settings are configured.
- Verify the data connection between the controller and the LED strip.

7.3 Uneven Lighting

The FCOB design provides uniform light. If uneven lighting occurs, check for physical damage to the strip or issues with power distribution. Compare FCOB with SMD LED strips:

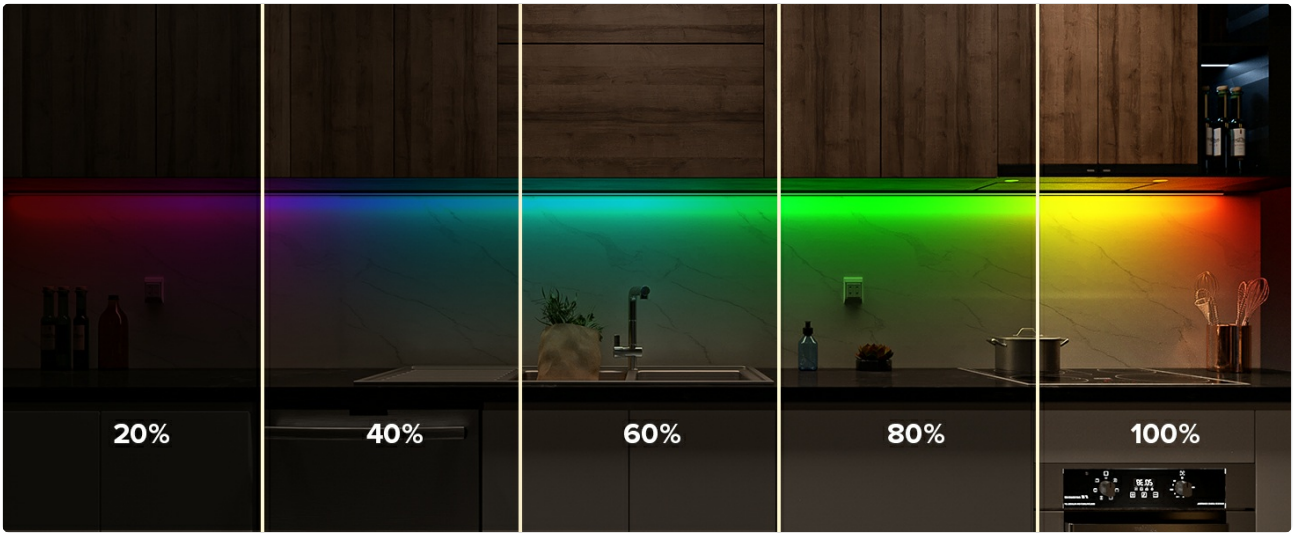


Image: This comparison highlights the advantages of FCOB SPI LED strips over SMD LED strips, noting FCOB's lower energy consumption, brighter and more uniform light, and eye-friendly characteristics, contrasting with SMD's low brightness and obvious dark spots.

8. Specifications

Brand	BTF-LIGHTING

Model Number	FCOB5M24VWS2814RGBWW30
Light Color	RGB+Warm White (3000K)
Length	16.4 feet (5 meters)
Voltage	DC24V
IC Type	WS2814 (External IC, 14 IC/m)
LEDs per Meter	784
Width	10mm
Wattage	76.8 watts
Material	Copper
Ingress Protection (IP) Rating	IP30 (Not Water Resistant)
Lifespan	65,000+ hours
Special Features	Addressable FCOB LED, Chasing Color, RGB+Warm White, Uniform Lights

9. Warranty and Support

BTF-LIGHTING provides dedicated customer support for DIY design assistance, installation help, troubleshooting, and after-sales warranty service. For any inquiries or issues, please contact BTF-LIGHTING customer support through the retailer's platform or the official BTF-LIGHTING website.



Image: This image highlights the availability of DIY design resources and professional technical support for BTF-LIGHTING products, emphasizing UL listing and customer assistance.

© 2023 BTF-LIGHTING. All rights reserved.

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

Open the live page

https://manuals.plus/asin/B0CFY4M89V

More documents and user manuals: **https://manuals.plus/**