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BTF-LIGHTING RGBWW55M505060LW65

BTF-LIGHTING RGBCCT 5-in-1 LED Strip Light User Manual

Brand: BTF-LIGHTING | Model: RGBWW55M505060LW65

1. INTRODUCTION

Thank you for choosing the BTF-LIGHTING RGBCCT 5-in-1 LED Strip Light. This product is designed to provide versatile and vibrant lighting for various indoor applications. This manual will guide you through the installation, operation, and maintenance of your LED strip light.

Please note: This package includes the LED strip light and a 6-PIN connector. A power supply and controller are **not included** and must be purchased separately to operate the strip light.



Image 1.1: BTF-LIGHTING RGBCCT 5-in-1 LED Strip Light

Package

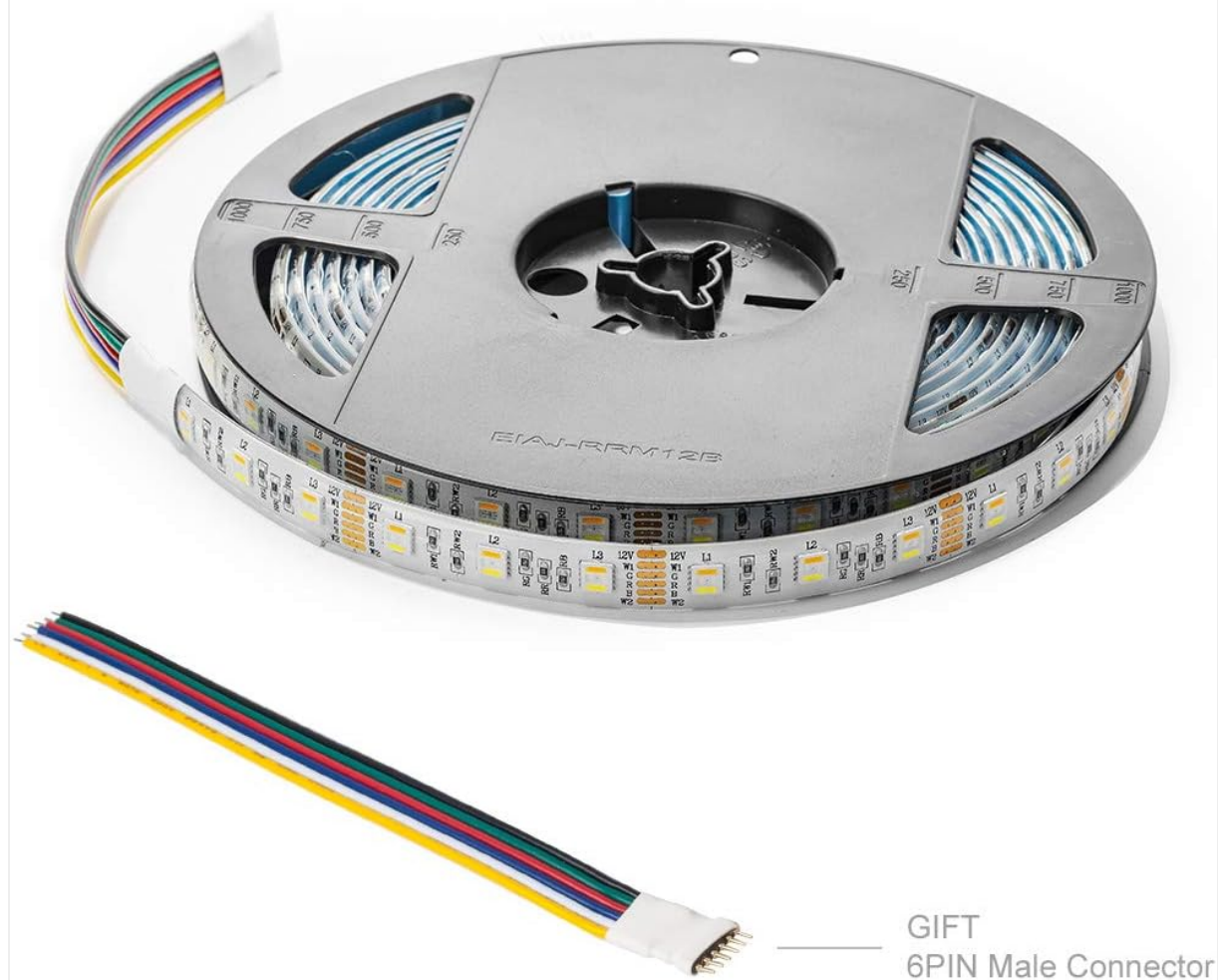


Image 1.2: The LED strip light as packaged, including the 6-PIN connector.

2. PRODUCT FEATURES

- **RGB CCT 5-in-1 LED Technology:** Each LED chip integrates Red, Green, Blue, Warm White (2700K), and Cool White (6500K) emitters, allowing for a wide spectrum of colors and tunable white light.
- **Tunable Color Temperature:** Adjust white light from warm (2700K) to cool (6500K) to suit various moods and environments.
- **Vibrant Color Options:** Capable of producing millions of colors by mixing RGB components.
- **Cuttable Design:** The strip can be cut every 3 LEDs, providing flexibility for custom lengths.
- **IP65 Water Resistance:** Features silicone coating for dust prevention and protection against water splashes, suitable for indoor use.
- **Adhesive Backing:** Equipped with strong adhesive tape for easy installation on various surfaces.
- **Controller Compatibility:** Works with various smart RGB CCT controllers (not included) for advanced control options, including WiFi, Bluetooth, Zigbee, Alexa, Google Home, and RF remote.

The image compares two LED chip designs side-by-side, separated by a vertical dashed line. The left design is labeled '4 COLORS IN 1' and '5050 SMD'. It features a semi-circular yellow area at the top labeled 'Warm White (3000K)' and a central square area with four sub-pixels labeled 'RGB'. The right design is labeled '5 COLORS IN 1' and '5050 SMD'. It features a rectangular yellow area at the top labeled 'Warm White (3000K)', a central square area with four sub-pixels labeled 'RGB', and a rectangular yellow area at the bottom labeled 'Cool White (6500K)'.

Why Choose Our RGB+CCT LED Strip Light

The image compares two types of LED strip lights. On the left, the BTF-LIGHTING RGB+CCT strip features a single chip that combines RGB and CCT (Warm White 3000K and Cool White 6500K) functionality, with 12V W1, G, B, and W2 pins. On the right, the 'Other' strip uses multiple chips for RGB and separate white light chips (labeled WW, BR, RR, W, WW, GR), with 24V+ pins. A large 'VS' graphic separates the two products.

BTF-LIGHTING

Warm White (3000K)

Cool White (6500K)

RGB

12V W1 G B W2

Other

24V+ R G B W WW BR RR W WW GR

RGB

CE RoHS

E348119

White Light

Image 2.2: Visual representation of the advantages of RGB+CCT LED strip lights, showing integrated warm and cool white LEDs for pure white light.



Image 2.3: Display of the wide range of colors and tunable white light options available from the LED strip.



IP65 Silicone Coating Waterproof

Dust prevention waterproofing. It works indoors only



IP67 Silicone Sheathing Waterproof

Dust prevention waterproofing designs. It can work outside

Image 2.4: Explanation of IP65 silicone coating for dust prevention and splash resistance, suitable for indoor use.

Your browser does not support the video tag.

Video 2.1: This video demonstrates the various color and tunable white light capabilities of the RGB CCT 5050 SMD LED Strip, showcasing its versatility.

3. SAFETY INFORMATION

- **Voltage:** This LED strip operates on 12V DC. Ensure your power supply provides the correct voltage to prevent damage.
- **Power Supply:** Use a compatible DC12V power supply with sufficient wattage for the length of the strip being used. Recommended power supply: DC12V 10A (120W) for the full 5-meter strip.
- **Indoor Use Only:** Despite IP65 rating, this product is designed for indoor use. Avoid direct exposure to harsh outdoor elements.
- **Installation:** Installation should be performed by a qualified individual if you are unsure about electrical wiring.
- **Cutting:** Only cut the LED strip at designated cut marks (every 3 LEDs) to avoid damaging the circuit.
- **Heat:** While LED strips generate less heat than traditional lighting, ensure proper ventilation, especially when installed in enclosed spaces.
- **Children:** The working voltage is 12V, making it touchable and safe for children. However, keep small components and wiring out of reach.

4. SETUP AND INSTALLATION

4.1 Pre-Installation Checklist

- Ensure you have a compatible 12V DC power supply and an RGB CCT controller (not included).
- Clean the installation surface thoroughly to ensure proper adhesion.
- Test the LED strip with your power supply and controller before permanent installation.

4.2 Mounting the LED Strip

1. Peel off the protective backing from the adhesive tape on the back of the LED strip.
2. Carefully press the strip onto the desired clean, dry surface. Apply firm, even pressure along the entire length to ensure good adhesion.

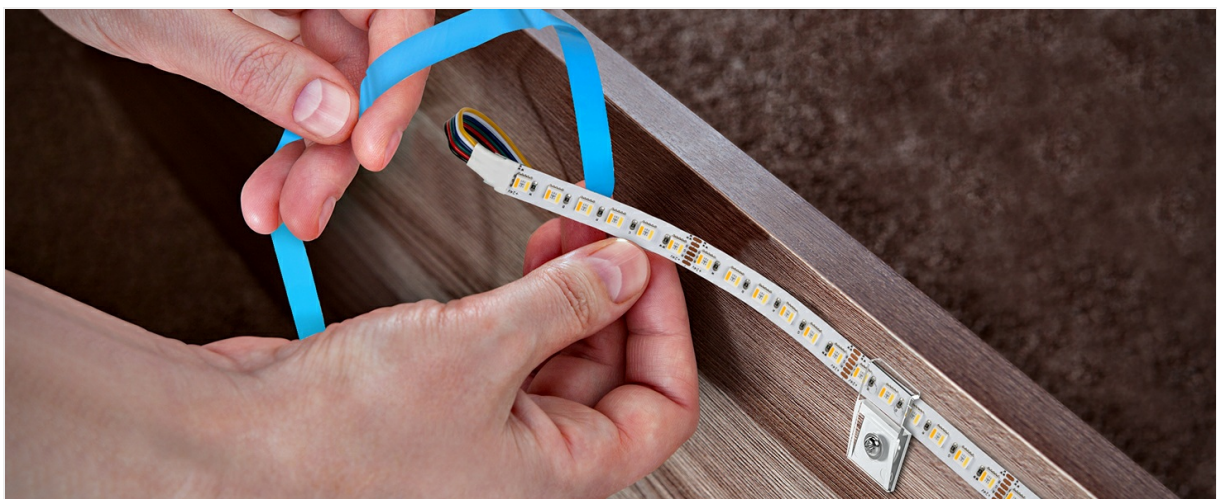


Image 4.1: Demonstrating the application of the LED strip's adhesive backing for mounting.

4.3 Connecting to Power and Controller

1. Connect the 6-PIN connector from the LED strip to your compatible RGB CCT controller. Ensure the pins align correctly (V+, W1, G, R, B, W2).
2. Connect the controller to your 12V DC power supply.

3. Plug the power supply into a suitable power outlet.

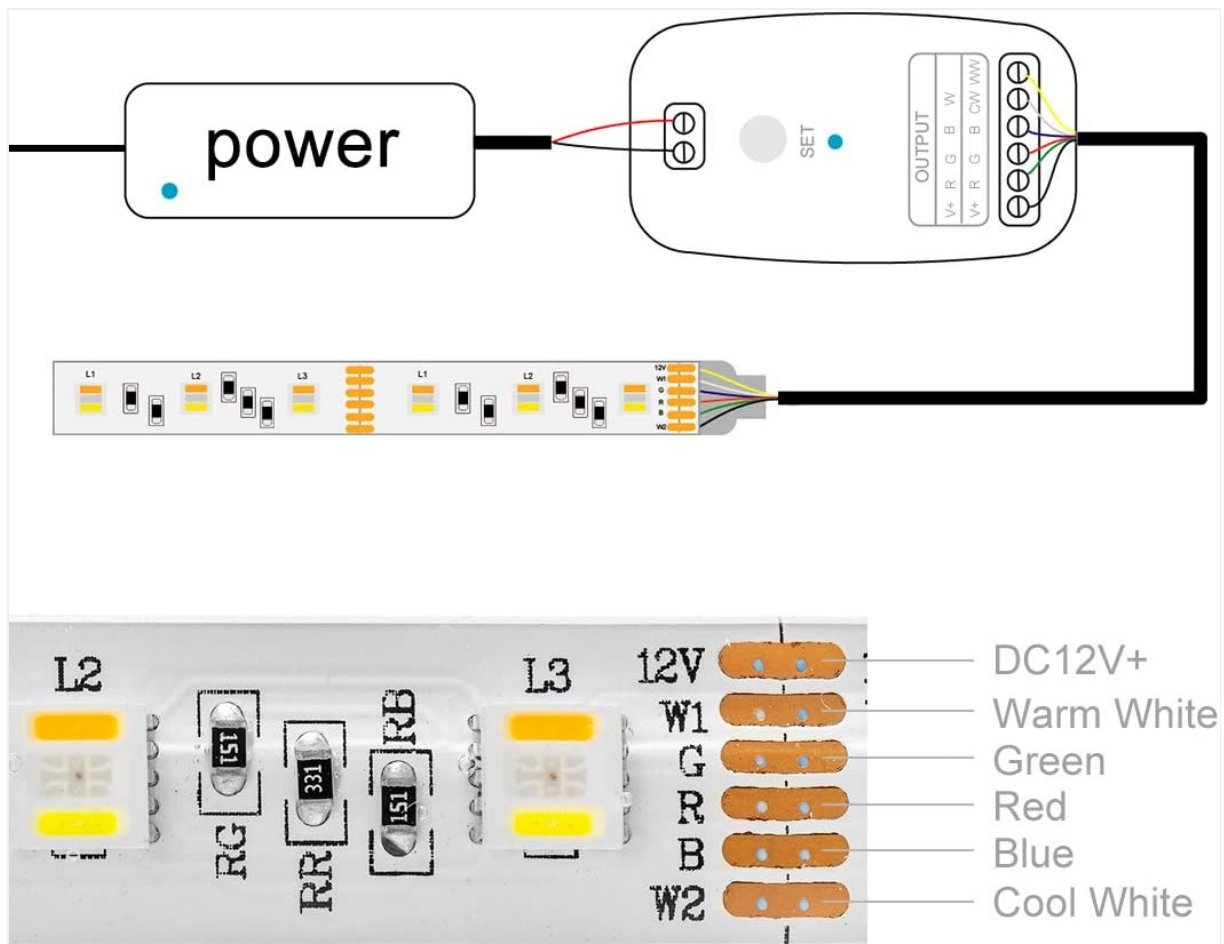


Image 4.2: Basic wiring diagram showing connections between the power supply, controller, and LED strip.



Image 4.3: Close-up of connecting the LED strip to a 6-PIN connector.

4.4 Cutting and Connecting Multiple Strips

- The LED strip can be cut at designated marks, typically every 3 LEDs. Use sharp scissors to ensure a clean cut.
- For IP65 strips, you may need to carefully clean the silicone coating from the surface at the connection points before using connectors.
- Use appropriate 6-PIN connectors (not included) to join cut sections or extend the strip. Ensure secure connections for reliable operation.

5050 RGBCT 5 in 1 60LED/m LED Strip 12mm Width

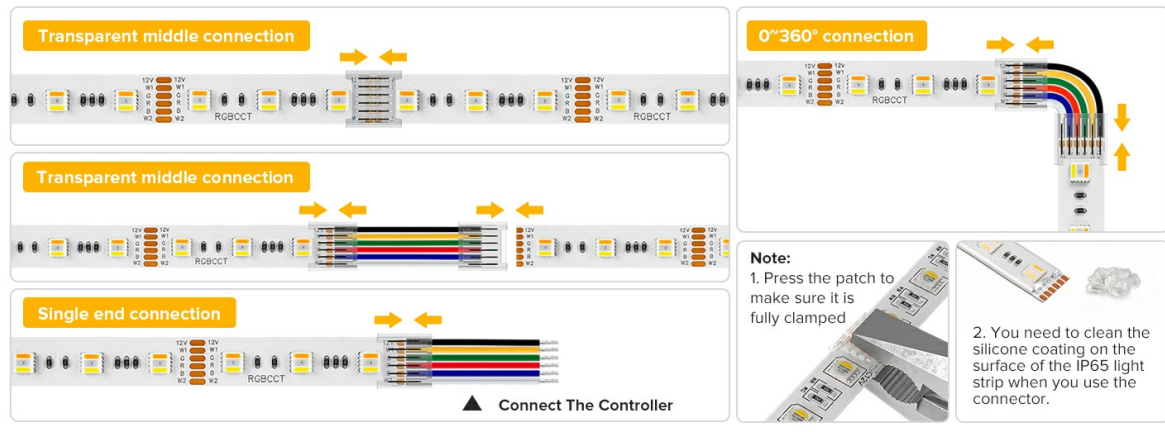


Image 4.4: Illustration of different connection methods for 5050 RGBCT LED strips, including notes on cleaning silicone for IP65 strips.

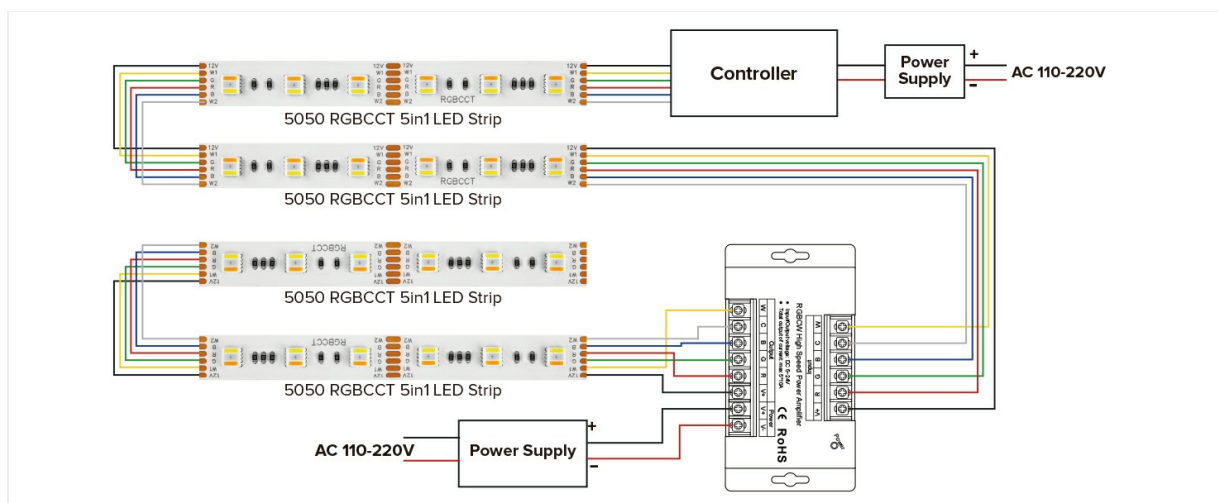


Image 4.5: Advanced wiring diagram for connecting multiple LED strips to a single controller and power supply.

5. OPERATING INSTRUCTIONS

Once properly installed and connected to a compatible RGBCT controller (e.g., WiFi, Bluetooth, Zigbee, RF remote), you can control your LED strip light. The specific operation will depend on your chosen controller and its associated application.

5.1 General Control Functions

- **Power On/Off:** Use the controller or app to turn the lights on or off.
- **Color Selection:** Choose from a wide range of RGB colors.
- **Tunable White Adjustment:** Adjust the white light temperature from warm (2700K) to cool (6500K).
- **Brightness Control:** Dim or brighten the lights to your preferred level.
- **Scene Modes:** Many controllers offer pre-set scene modes for various occasions.
- **Voice Control:** If using a smart controller compatible with Amazon Alexa or Google Home, you can control the lights with voice commands.

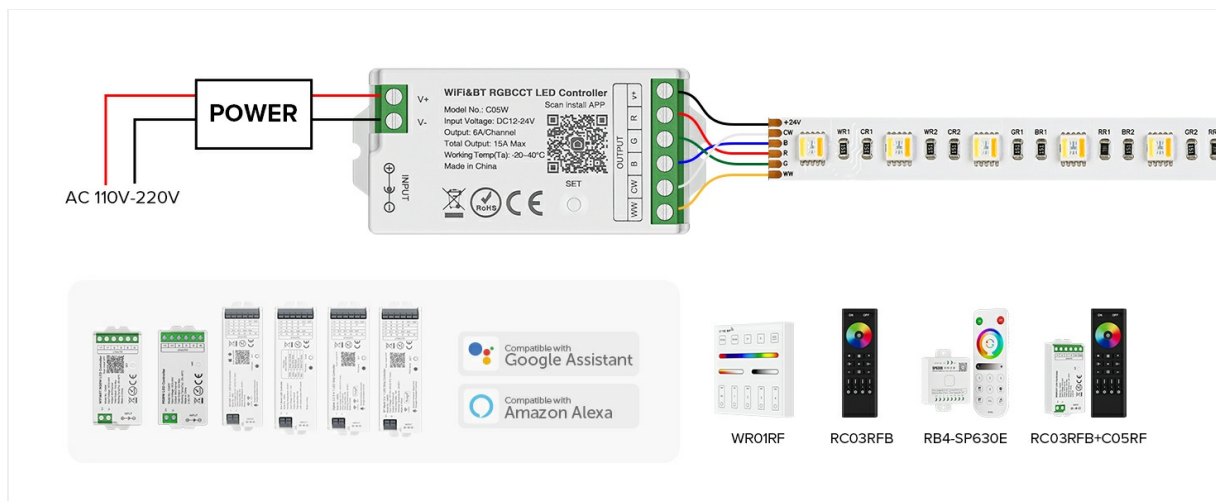


Image 5.1: Examples of compatible controllers (WB5, LM052, LM053) and integration with Google Assistant and Amazon Alexa. For smart control, download the Smart Life app: <https://smartapp.tuya.com/smartlife>

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Video 5.1: This video demonstrates the functionality of the WR01RF Wireless 2.4G RF 4 Zones RGB CCT Wall Mounted Smart Panel Remote in controlling the LED strip's colors and brightness.

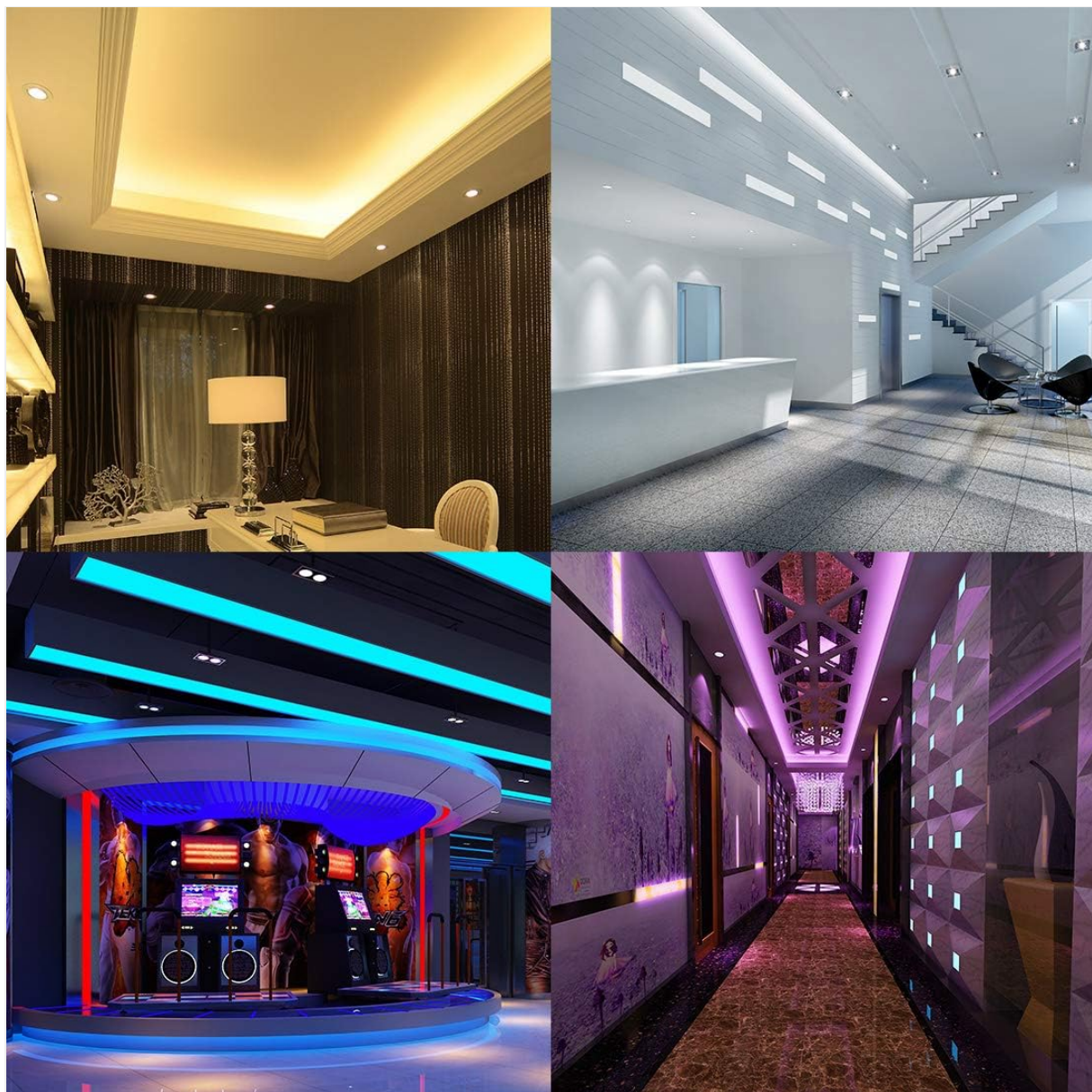


Image 5.2: Examples of the LED strip used in architectural lighting, bars, and home decoration.

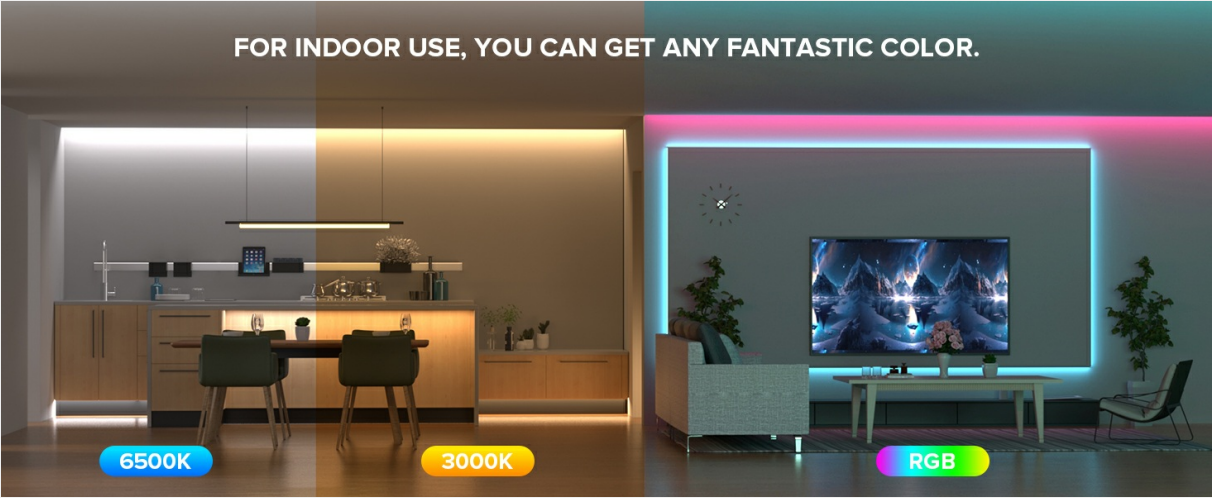


Image 5.3: Demonstrating the ability to achieve various colors and white temperatures (6500K, 3000K, RGB) for indoor use.

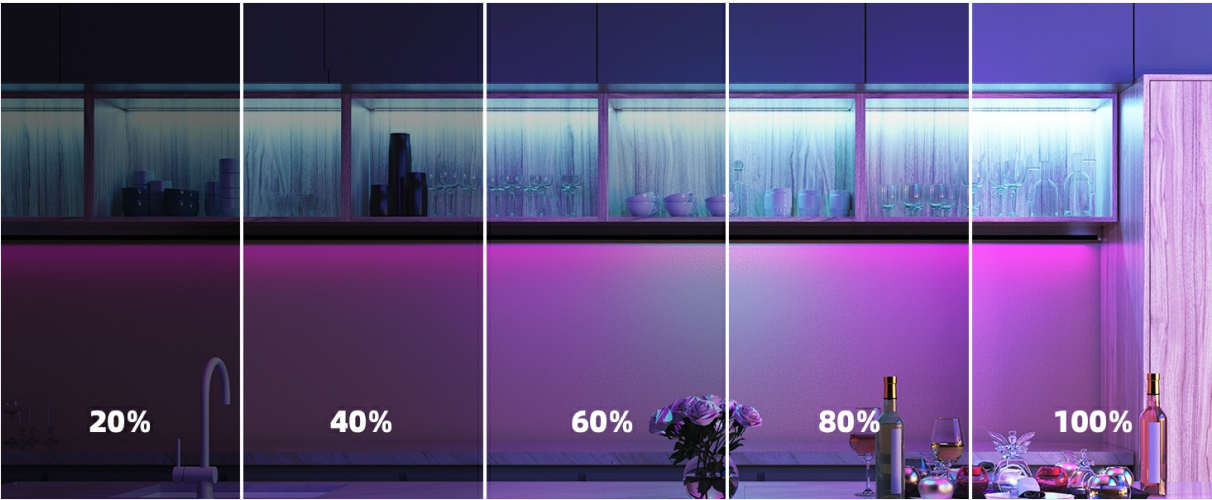


Image 5.4: Visual representation of the LED strip's dimming capabilities, from 20% to 100% brightness.

6. MAINTENANCE

- **Cleaning:** Gently wipe the LED strip with a soft, dry cloth to remove dust. Avoid using harsh chemicals or abrasive materials. Ensure the strip is powered off before cleaning.
- **Inspection:** Periodically check the strip and connections for any signs of wear or damage.
- **Storage:** If storing the strip, ensure it is rolled neatly and kept in a dry, cool place away from direct sunlight.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
LED strip does not light up.	No power, incorrect voltage, faulty connection, faulty controller.	Check power supply connection and output. Ensure controller is correctly wired and functioning. Verify strip is connected securely.
Some LEDs are not lighting up or show incorrect colors.	Damaged section, poor connection, incorrect wiring.	Inspect the strip for physical damage. Check connections for loose wires or improper seating. Ensure correct polarity and pin assignment.

Problem	Possible Cause	Solution
Lights flicker or dim unexpectedly.	Insufficient power supply, loose connection, controller issue.	Ensure power supply wattage is adequate for the strip length. Check all connections. Test with a different controller if possible.
Remote/App control is unresponsive.	Controller not paired, battery low (for remote), Wi-Fi/Bluetooth issue.	Refer to your controller's manual for pairing instructions. Replace remote batteries. Check Wi-Fi network or Bluetooth connection.

8. SPECIFICATIONS

Feature	Detail
Brand	BTF-LIGHTING
Model Number	RGBWW55M505060LW65
LED Type	5050SMD RGB CCT (5 Colors in 1 LED)
Voltage	12 Volts (DC)
Power (per meter)	6W-18W/m (Total: 30W-90W for 5m)
LEDs per Meter	60 LEDs/m
Total LEDs	300 LEDs (for 5m)
Color Temperature	2700K-6500K Tunable White
Light Color	Multicolor (RGB), Warm White, Cool White
Strip Length	16.4 ft (5 Meters)
PCB Color	White PCB
PCB Width	12mm
Water Resistance	IP65 (Silicone Coating)
Indoor/Outdoor Usage	Indoor Use Only
Included Components	6 PIN Connector
Certification	UL Listed
Average Life	10,000 Hours

Image 8.1: Dimensional specifications for 12V and 24V 5050 RGB CCT LED strips.

Supplier's address: SC ENIF PEGASUS SRL, Strada RADOVANU Nr.7 Bloc 42, scara 1, Etaj 5 Ap29, 022882 Bucuresti Sector 2, RO

Model identifier: S050 RGB CCT LED Strip

Type of light source:

Lighting technology used:	LED	Non-directional or directional:	NDLS
Light source cap-type (or other electric interface)	Connecting leads		
Mains or non-mains:	NMLS	Connected source (CLS):	No
Colour-tunable light source:	Yes	Envelope:	-
High luminance light source:	No		
Anti-glare shield:	No	Dimmable:	No

Product parameters

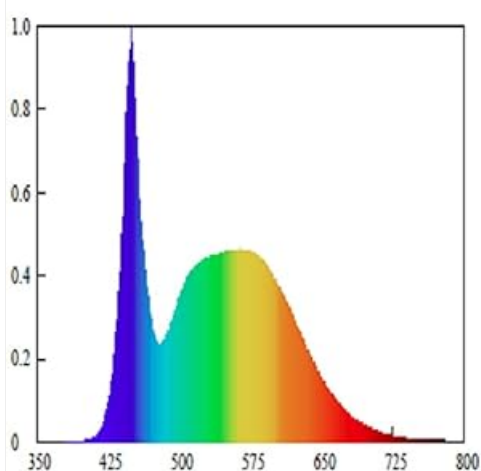
Parameter	Value	Parameter	Value
General product parameters:			
Energy consumption in on-mode (XWh/1000 h), rounded up to the nearest integer	90	Energy efficiency class	F
Useful luminous flux (Φ_{use}), indicating if it refers to the flux in a sphere (360°), in a wide cone (120°) or in a narrow cone (90°)	9 700 lm Sphere (360°)	Correlated colour temperature, rounded to the nearest 100 K, or the range of correlated colour temperatures, rounded to the nearest 100 K, that can be set	6 500
On-mode power (P_{on}), expressed in W	90,0	Standby power (P_{stb}), expressed in W and rounded to the second decimal	0,00
Networked standby power (P_{net}) for CLS, expressed in W and rounded to the second decimal	-	Colour rendering index, rounded to the nearest integer, or the range of CRI-values that can be set	82
Outer dimensions without separate control gear, light-	Height: 3 Width: 12 Depth: 5 000	Spectral power distribution in the range 250 nm to 800 nm, at full-load	See image in last page

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ing control parts and non-lighting control parts, if any (millimetre)			
Claim of equivalent power ^(a)	-	If yes, equivalent power (W)	-
		Chromaticity coordinates (x and y)	0,308 0,329
Parameters for LED and OLED light sources:			
R9 colour rendering index value	1	Survival factor	1,00
the lumen maintenance factor	0,98		

(a): - : not applicable;
(b): - : not applicable;

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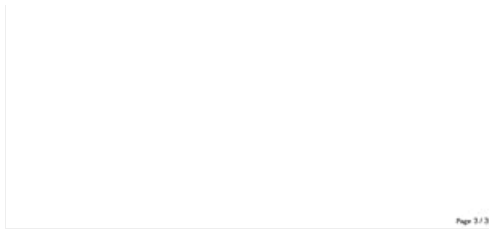


Image 8.2: EPREL energy efficiency label for the BTF-LIGHTING 5050 RGB CCT LED Strip. For more details, visit <https://eprel.ec.europa.eu/qr/1506152>

9. WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the product packaging or contact BTF-LIGHTING customer service directly. Keep your purchase receipt for any warranty claims.

Related Documents - RGBWW55M505060LW65

<div>Multilingual Index</div> <div>English..... P.1</div> <div>Deutsch..... P.12</div> <div>Español..... P.22</div> <div>Français..... P.32</div> <div>Italiano..... P.42</div> <div>Nederlands..... P.52</div>	<div>BTF-LIGHTING 5050 SMD RGBCCT LED Strip User Manual</div> <div>Comprehensive user manual for the BTF-LIGHTING 5050 SMD RGBCCT LED Strip, detailing product specifications, installation instructions, and troubleshooting for this versatile 5-color-in-1 LED strip.</div>
<div>Multilingual Index</div> <div>English..... P.01</div> <div>Deutsch..... P.13</div> <div>Español..... P.24</div> <div>Français..... P.35</div> <div>Italiano..... P.46</div> <div>Nederlands..... P.57</div>	<div>BTF-LIGHTING 5050SMD RGBW LED Strip User Manual</div> <div>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.</div>
<div>Multilingual Index</div> <div>English..... P.01</div> <div>Deutsch..... P.09</div> <div>Español..... P.17</div> <div>Français..... P.25</div> <div>Italiano..... P.33</div> <div>Nederlands..... P.41</div>	<div>BTF-LIGHTING 5050 SMD RGBW LED Strip User Manual</div> <div>User manual for the BTF-LIGHTING 5050 SMD RGBW LED Strip, detailing product parameters, installation, precautions, and troubleshooting for optimal lighting solutions.</div>

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<div><div>Multilingual Index</div><div>English..... P.01 Deutsch..... P.14 Español..... P.26 Français..... P.38 Italiano..... P.50 日本語..... P.62 Nederlands..... P.74</div></div>	<div><div>BTF-LIGHTING FCOB PWM RGBCCT LED Strip User Manual</div><div>User manual for the BTF-LIGHTING FCOB PWM RGBCCT LED Strip, detailing product parameters, installation instructions, precautions, and controller compatibility.</div></div>
<div><div>Multilingual Index</div><div>English..... P.01 Deutsch..... P.14 Español..... P.25 Français..... P.36 Italiano..... P.47 日本語..... P.58 Nederlands..... P.58</div></div>	<div><div>BTF-LIGHTING WS2805 IC RGBCCT LED Strip User Manual</div><div>Comprehensive user manual for the BTF-LIGHTING WS2805 IC RGBCCT Addressable LED Strip, covering specifications, installation, precautions, and controller compatibility.</div></div>