Manuals+

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FCOB WS2812B SPI RGB IC LED Strip with Remote Controller

Product parameters

LEDs Type: FCOB WS2812B IC RGB Flip Chip On Board
View Angle: 180°
Input Voltage: ONLY DC5V

- FPCB Width: 160LED/m-5mm width PCB
- 160LED/m-10mm width PCB
- 180LED/m-10mm width PCB

Total Length: 3.2ft/1m, 6.4ft/2m, 9.8ft/3m, 13.1ft/4m, 16.4ft/5m

IC Chip quantity: (160LED/m)160IC/m, (180LED/m)180IC/m

Recommend Power Supply:

- 3.2ft-DC5V2A 10W; 6.4ft-DC5V4A 20W; 9.8ft-DC5V6A 30W;
- 13.1ft-DC5V8A 40W; 16.4ft-DC5V10A 50W
- The power of the light strip is not fixed. It will vary with the lighting effect and the length of the LED strip.

Waterproof Level: IP30 Non-waterproof

3PIN Connecting:

- +V: +5V~~Red Wire DAT: Data~~Green Wire GND: -V~~White Wire
- DI: Data Input
- DO: Data Output

Precautions

1. Verify the power supply output voltage matches the LED strip's operating voltage (DC5V only). Use of DC12V/DC24V will cause irreparable damage and void warranty.
2. Actual power consumption varies with strip length. Extended lengths may induce voltage drop.
3. LEDs at the distal end may exhibit reduced brightness due to inherent resistance and voltage drop—an unavoidable physical characteristic common to all LED strips.

Factors Affecting Brightness:

1. **Length:** Voltage drop may occur with extended strip lengths.
2. **Power Requirement:** Ensure the power supply's wattage rating meets or exceeds the total power consumption of the LED strip.
3. **Lighting Mode:** Full-white mode (RGB mixed white) consumes significantly more power than single-color modes.
4. **Brightness Level:** Higher brightness settings increase power consumption.

Solution

1. **Voltage Compensation**: Inject additional power every 5 meters (16.4 ft).
2. **Reduce Brightness:** Lower brightness to decrease power demand.
3. **Adequate Power Supply:** Use a power source with sufficient wattage.
4. **Avoid Full-White Mode:** Minimize RGB-mixed white to reduce energy usage.
5. **Refer to Manual:** Follow the "Series Connection & Voltage Supplementation" guide for optimal setup.
6. **Other Measures:** Additional adjustments may be required based on installation conditions.

Recommend Controllers (Controller Sold Separately)

Controller Compatibility Notice

Controller Capacity Requirement:

- The controller must support an equal or greater number of IC chips than the LED strip. Insufficient controller capacity will result in partial illumination.
- **Note:** Verify the IC chip count on both the LED strip and controller before purchase.

Power Supply Specification:
Use only a DC5V high-current power supply to prevent:

- Signal interruption
- Unstable operation
- System freezing

(Controllers sold separately.

SP602E 4 ouputs
Bluetooth Controller

Each port control 600 IC

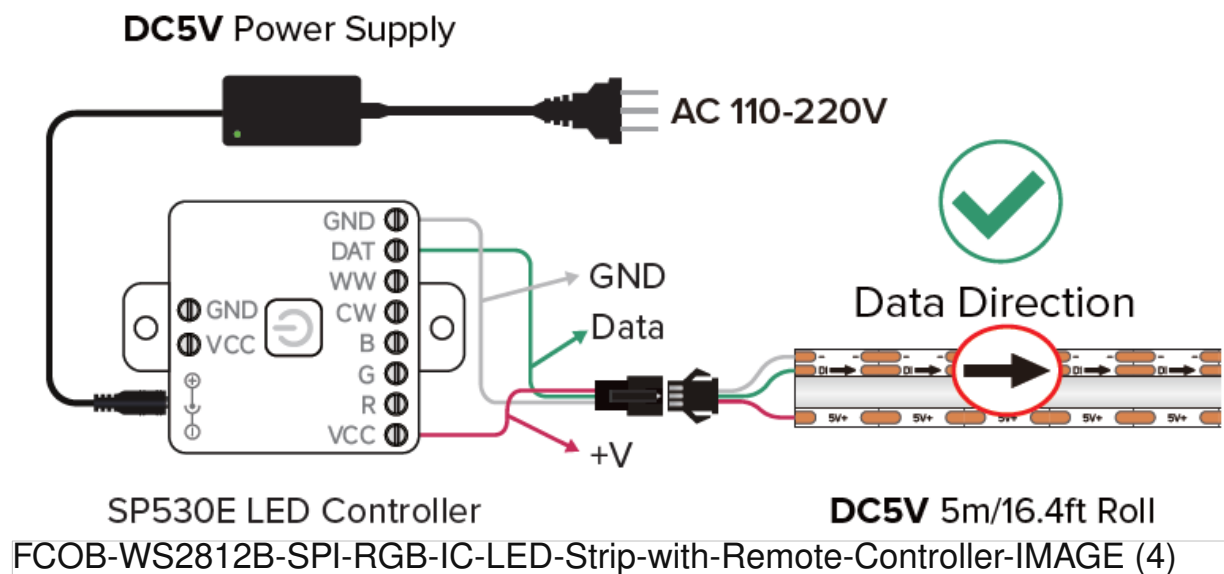SP611E Bluetooth
Music Controller

Each port control 600 IC

WLED
(ESP32/ ESP8266)

Recommended Power Supply

(Power Supply Sold Separately)

- DC5V10A Power Supply
- DC5V20A Power Supply

FCOB-WS2812B-SPI-RGB-IC-LED-Strip-with-Remote-Controller-IMAGE (4)

Data Direction:

The black arrow on the FPCB indicates the data flow direction. Connect wiring strictly according to the arrow direction to ensure proper illumination.

- Power supply output voltage matches strip specifications
- **Warning:** Incorrect voltage may cause strip burnout.

Series Connection & Voltage Supplementation
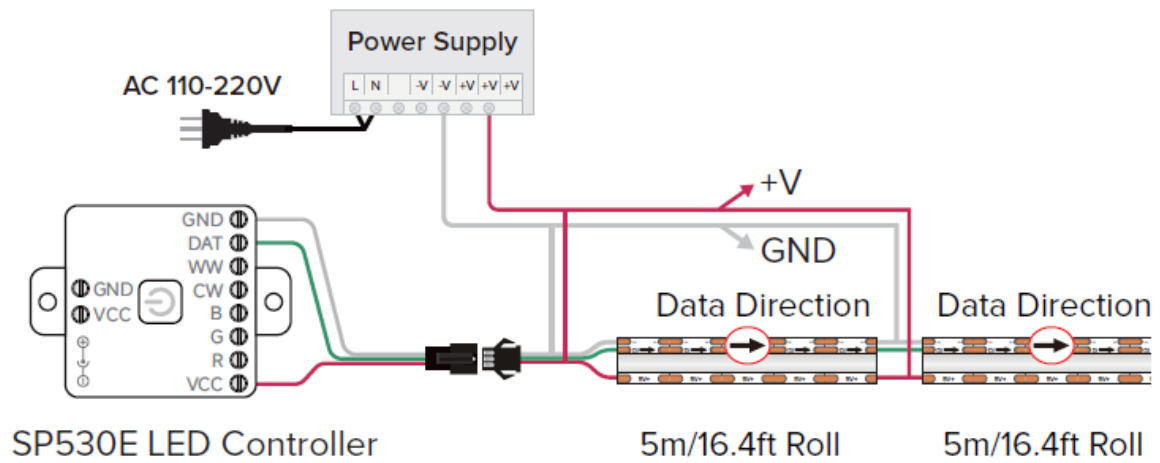
FCOB-WS2812B-SPI-RGB-IC-LED-Strip-with-Remote-Controller-IMAGE (6)

**Parallel Connection & Voltage Supplementation**

Note: The LED strip is constructed with 50cm (1.6ft) FPCB segments, resulting in solder joints at 50cm intervals.
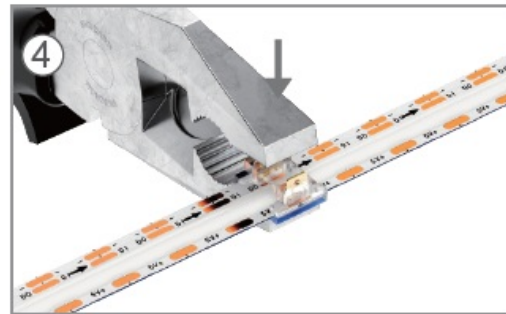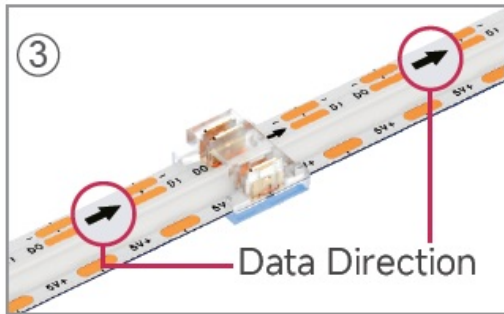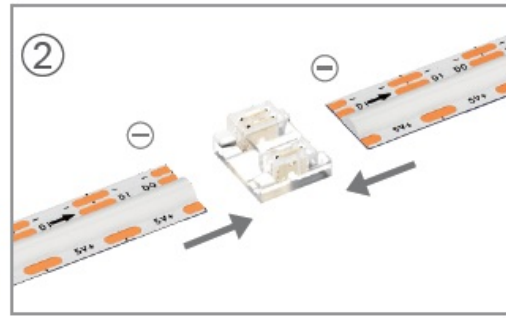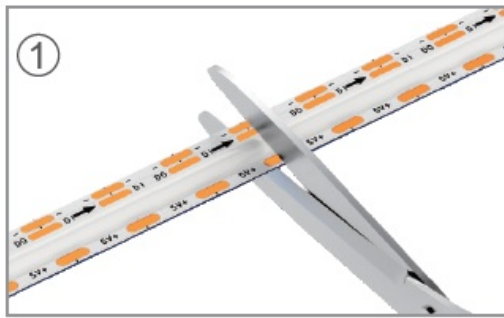
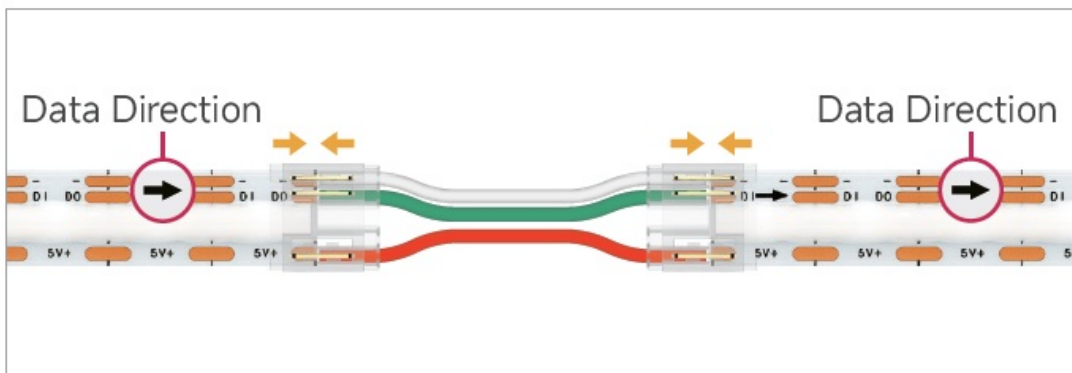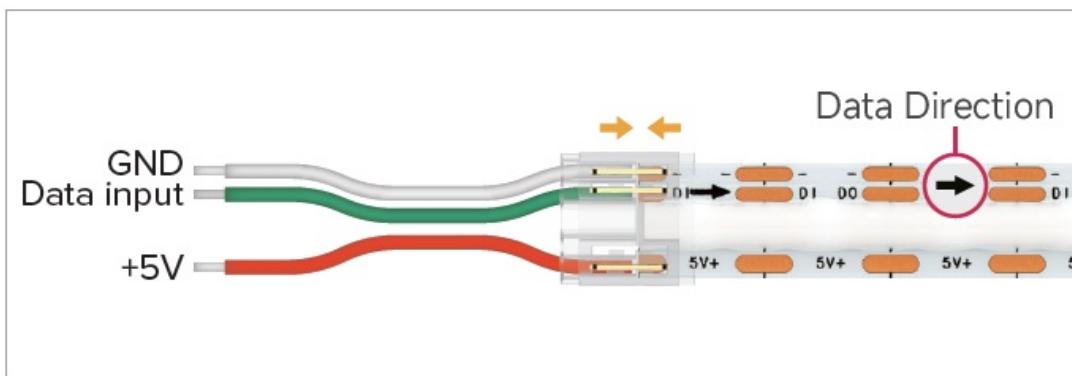## DIY Connectors (Sold Separately) Installation Note:

Data Direction:

- Ensure correct alignment of the data input direction during connection to prevent malfunction.
- 10mm FCOB WS2812B IC RGB LED strip (160LED/m or 180LED/m density)
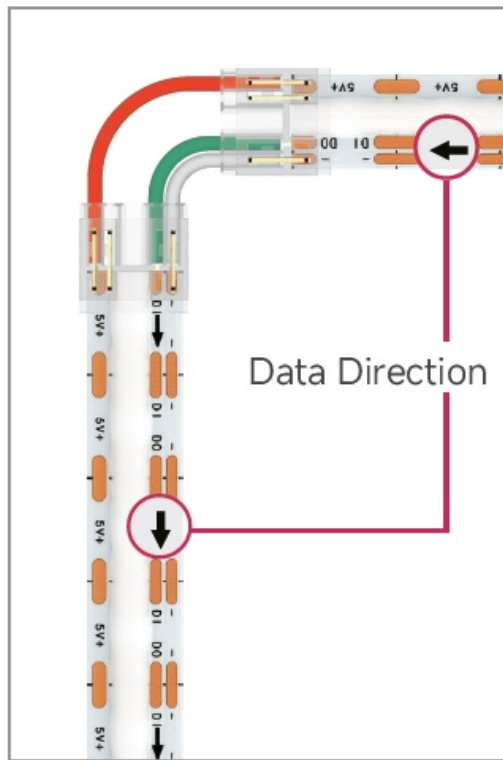

Strip to Strip

Data Direction

Wires to Strip

GND
Data input
+5V
Data Direction

Data Direction
Data Direction
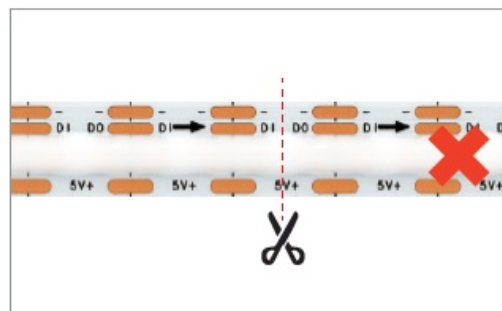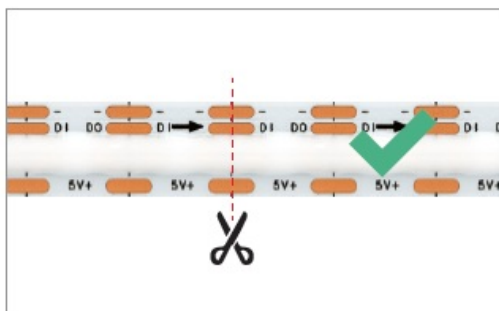
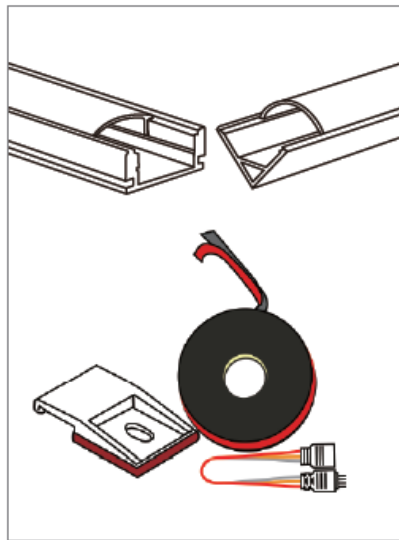**L Shaped Left Connectors**

L Shaped Right Connectors

Data Direction

LED Aluminum

- U shaped
- V shaped

LED Accessories

- Mounting clips
- Adhesive tape
- 3PIN JST Connector
- Extension Cable

Installation Notes

- Do not bend, fold or crease the LED strip/tape in a horizontal direction.
- Please peel off the tape gently, otherwise it may tear due to over-stretching.
- Please take proper anti-static measures, gently press the PCB board, not the LEDS surface, otherwise it may cause chemical reaction as time goes by.
- Do not over bend the LED strip to make the circuit break even the strip works fine after over-bending the hot and cold contrast may cause PCB board disfunction either Bending radius>30mm(1.2in)

Precaution for Use

LED Strips do not dissipate heat well when rolled up. This may result in damage to LED Strip.
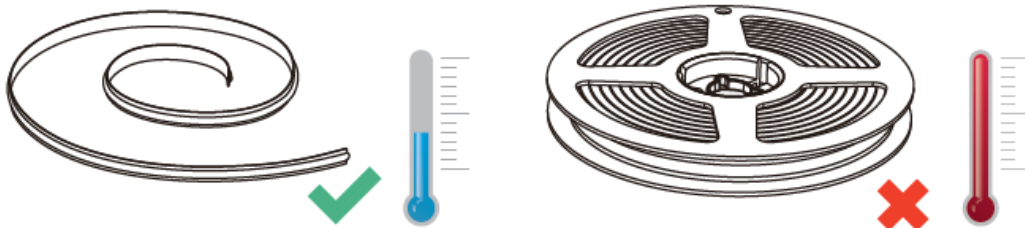
Professional Lighting Solutions:

Our engineering team provides customized design services for your LED strip applications. Contact us for professional project planning regarding:

- Staircase lighting
- Wine cabinet illumination
- Ceiling light integration
- Hallway lighting systems
- Cabinet accent lighting

Our lighting specialists will deliver optimized solutions tailored to your specific requirements.

EC REP

- **Business name:** XDH Tech
- **Business address:** 2 Rue Coysevox Bureau 3, Lyon, 69001, France
- **Email:** axdh.tech@outlook.com

UK REP

- **Business name:** GSG CONSULTING GROUP LIMITED
- **Business address:** Montague houses unit 3 Matthew street, Manchester, M12 5bb, United Kingdom
- **Email:** GSG–GROUP@outlook.com
- **Global customer service:** support@fcob.com
- **US Amazon customer service:** fcobstrip@outlook.com

Warranty

- 12 months

UL Certification Notice

This LED strip is UL Listed (United States), certifying full compliance with ANSI/UL safety standards for electrical and fire safety.

FAQ

What happens if I use the incorrect power supply voltage?

Using an incorrect power supply voltage can cause irreparable damage to the LED strip and void the warranty.

How do I prevent voltage drop with extended strip lengths?

To prevent voltage drop, inject additional power every 5 meters (16.4 ft) along the strip length.

Documents / Resources

Multilingual Index

[FCOB WS2812B SPI RGB IC LED Strip with Remote Controller](#) [[pdf](#)] User Manual

WS2812B SPI RGB IC LED Strip with Remote Controller, WS2812B SPI RGB IC, LED Strip with Remote Controller, LED Strip with Remote Controller, LED Strip with Remote, Strip with Remote Controller, Remote Controller

References

- [User Manual](#)

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🏷 FCOB, LED Strip with Remote, LED Strip with Remote Controller, Remote Controller, Strip with Remote Controller, WS2812B SPI RGB IC, WS2812B SPI RGB IC LED Strip with Remote Controller

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