

3-Button RF White Light LED SPI Controller



CE RoHS

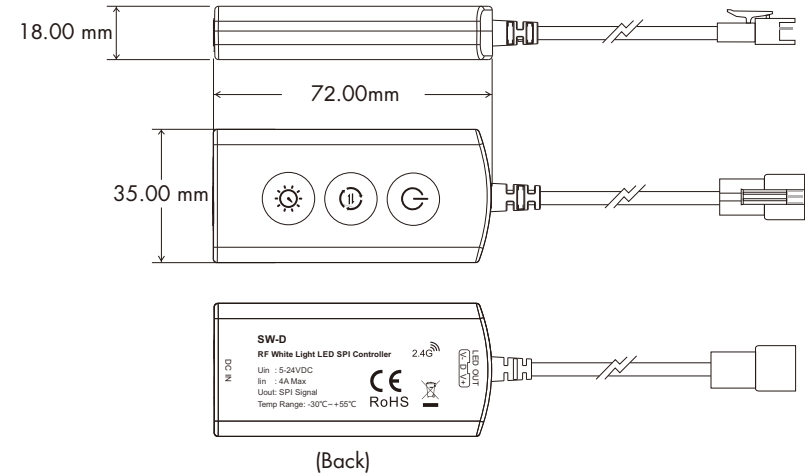
Features

- 3-Button RF white light LED SPI controller with single-wire SPI signal output.
- Compatible with 15 types of pixel light strips.
Compatible IC: TM1809, TM1804, TM1812, UCS1903, UCS1909, UCS1912, SK6813, UCS2903, UCS2909, UCS2912, WS2811, WS2812, WS2813, WS2815, SM16703P.
- 3-Buttons support on/off, adjust brightness, speed, change type and move direction.
- Built-in 5 kinds light change type and 6 kinds move direction, which can be set by button or RF remote control.
- RF 2.4G remote control is available as an option.

Technical Parameters

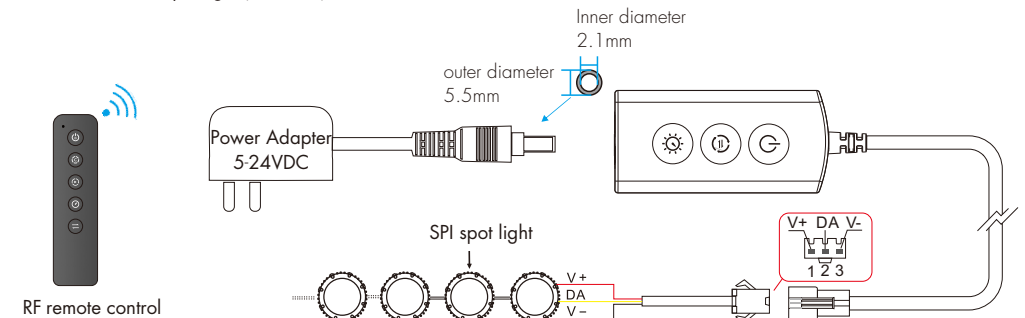
Input and Output		Environment		Safety and EMC	
Input voltage	5-24VDC	Operation temperature	Ta: -30°C ~ +55°C	EMC standard	EN IEC 55015/EN IEC 61547
Input current	Max. 4A	Case temperature (Max.)	Tc: +64°C		ETSI EN 301 489-1/-3
Input signal	3-Button + RF 2.4GHz	IP rating	IP20	Safety standard	EN 61347-1/-2
Output signal	SPI	Package	Size L120 x W50 x H22mm	Radio equipment	ETSI EN 300 440
Remote distance	30m(Barrier-free space)			Certification	CE RoHS
Pixel dots	Max. 1000			Warranty and Protection	
		Gross weight	0.048kg	Warranty	5 years
				Protection	Reverse Polarity

Size Drawing

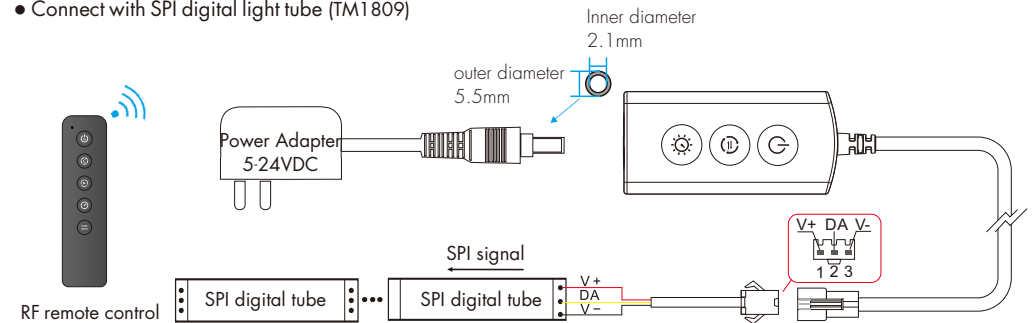


Wiring Diagram

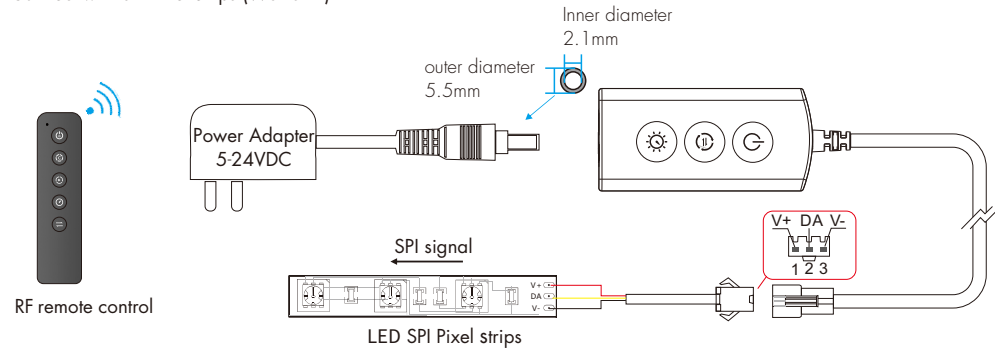
- Connect with SPI spot light (TM1804)



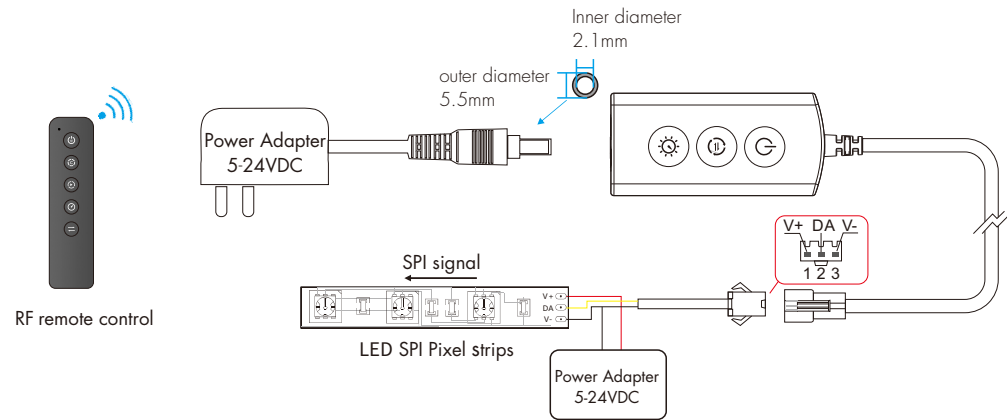
- Connect with SPI digital light tube (TM1809)



- Connect with SPI Pixel strips (WS2811)



- Connect with multiple SPI pixel strips (Load over 4A)



Installation Precautions:

1. When the load of the light strip exceeds 4A, the light strip needs to be powered by other power supplies (the light strip and the power supply must share the same ground), Only DATA and GND cables are connected between the controller and the light strip.
2. The output power of a constant-voltage power supply must be at least 1.2 times that of the output load (light strip). Otherwise, when the load operates at full power, it may cause the lights to flicker or shimmer automatically.
3. The voltage of the power supply needs to be the same as the voltage of the light strip to avoid the phenomenon of the light strip not being lit or slightly lit.
4. When installing, the length of the signal line (DATA) needs to be ≤ 10 meters. And if it exceeds 10 meters, it needs to be connected to an SPI signal amplifier (common ground) for signal amplification to avoid signal interference due to the line being too long.
5. When installing, the SPI signal lines need to be separated from the strong power lines (100~240VAC) at a distance of ≥ 15 cm to avoid the magnetic field generated by the strong power from interfering with the signal transmission.
6. The light strip is always on without control, it may be that the signal line (DATA) is open or the chip of the light strip is damaged, it is recommended to replace the signal line or the light strip.

Button Function

- Short press:** Turn on/off the light.
- Short press:** Switch 5 kinds change type sequentially.
Long press 2s: Switch 6 kinds move direction sequentially.
- Short press:** Adjust 10-level speed of the light changes.
Long press(1-6s): Adjusts light brightness continuously, dimming range 10-100%.

Change types list:

NO.	Name
1	Flow
2	Black+white float
3	Trail
4	Trail+black section
5	Static

Move directions list:

NO.	Name
1	Forward
2	Reverse
3	Center split (center to sides)
4	Close (sides coming together in the center)
5	Forward on + backward off
6	Backward on + forward off

Pixel length settings:

Pixel length setting range: 8-1000.

Short press and button at the same time to enter the light strip pixel settings mode,

short press again to decrease the strip pixel length by 1;

Long press and button at the same time to decrease the LED strip pixel length continuously.

Short press and button at the same time to enter the light strip pixel settings mode,

short press again to increase the LED strip pixel length by 1;

Long press and button at the same time to increase the LED strip pixel length continuously.

The LED strip gradually fades in and out to indicate the current pixel length.

Match remote control:

Match:

Press and hold and button for 2s, output LED will blink 2 times.
immediately press on/off key (single zone remote) or zone key (multiple zone remote) of the remote.
The output LED will blinks 3 times means matching is successful.

Delete:

Press and hold and button for 5s to delete all match, The output light blinks 5 times means all matched remotes were deleted.

Restore factory default settings:

Press and hold and button for 15s to restore factory settings, the output LED will blink 10 times.

Factory default parameters: flow change type, forward move direction, 8th change speed, pixel length 300.

Package Contents

