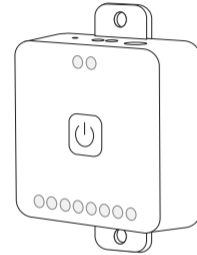# SP530E Instructions

SPI+5CH PWM All In One IoT LED Controller

1.Brief:

SP530E is a versatile IoT LED controller designed specifically for controlling various types of LED. It utilizes a dual-mode (2.4GHz WiFi and Bluetooth LE5.0) chip, enabling Bluetooth, WiFi, local network, or cloud connection via an App. It also supports RF remote control.

Furthermore, the SP530E has integrated with various smart home platforms, including **Alexa**, **Google Home**, **Xiao Ai**, and **Xiao Du**, allowing you to easily control your light through voice commands. SP530E offers limitless potential for lighting and ambiance needs, delivering a more intelligent, convenient, and personalized experience to you.

2.Features:

① Supports multiple control methods, including App control, smart speaker voice command control, and 2.4G RF remote control, providing users with flexible control options.

② All-new upgraded music effects, featuring multi-segment LED strip music effects and Matrix LED music spectrum effects.

● Multi-segment LED strip music effects: Users can configure multiple segments of music effects on the same LED strip, each segment of the strip can feature different music effects, various pixel counts, and can be tailored to correspond with low, mid, or high audio frequency ranges.

● Matrix LED music spectrum effects: Users can flexibly configure the size and wiring layout of a LED matrix, can set parameters for the falling dots and sound columns, such as color palette, saturation, direction, etc. Offering users even more unique music spectrum effects.

● Various music collection methods: Supports various music collection methods including phone microphone, player streaming, and onboard microphone.

③ Compatible with up to 12 different types of LED.

④ Supports power on/off dynamic effects setting, timer settings, playful on/off triggering settings, and default power-on status setting.

⑤ Supports OTA firmware upgrades, keeping the device in its optimal state.

⑥ Integrated with "BanlanX^{IoT}" Cloud for stable IoT smart home cloud connections.

3.LED Type:

NO.	Parameters			LED Type
	RGB	CW	WW	
1	⊘	🔢	🔢	1CH PWM Single Color
2	⊘	🔢	🔢	2CH PWM CCT
3	🔢	⊘	⊘	3CH PWM RGB
4	🔢	🔢	⊘	4CH PWM RGBW
5	🔢	🔢	🔢	5CH PWM RGBCCT
6	⊘	🔢	⊘	SPI Single Color
7	⊘	🔢	⊘	SPI CCT
8	🔢	⊘	⊘	SPI RGB
9	🔢	🔢	⊘	SPI RGBW
10	🔢	🔢	🔢	SPI RGBCCT
11	🔢	🔢	⊘	SPI RGB+1CH PWM Single Color
12	🔢	🔢	🔢	SPI RGB+2CH PWM CCT

4.APP:

1. SP530E supports App control for iOS and Android devices.

2. Apple devices require iOS 10.0 or higher, and Android devices require Android 4.4 or higher.

3. You can search "BanlanX" in App Store or Google Play to find the APP, or scan the QR code to download and install.

Operations

● Open the App, click the ➕ icon in the top right corner of the home page to add device .

● Please set the LED type and calibrate the color order according to the page prompts, you can also change these settings on the settings page.

● Click the ⚙ icon in the upper right corner of the App to enter the settings page, where you can modify the name, modify the type of LED, calibrate the color order, set the timings, set the on/off effect,etc.
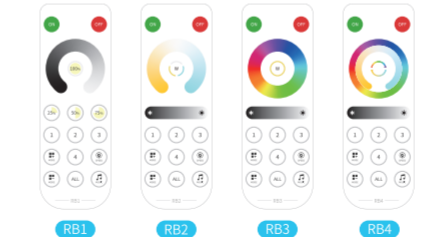
5. 2.4G Touch Remote Control :

SP530E can be used with 2.4G touch remote control and 2.4G touch 86-type panel; There are 4 kinds of remote control, 4 kinds of 86-type panel; different type of LED match different remote control and model:

1CH PWM Single Color	2CH PWM CCT	3CH PWM RGB	4CH PWM RGBW	5CH PWM RGBCCT	SPI Single Color
RB1 RC1	RB2 RC2	RB3 RC3	RB3 RC3	RB4 RC4	RB1 RC1
SPI CCT	SPI RGB	SPI RGBW	SPI RGBCCT	SPI RGB +1CH PWM	SPI RGB +2CH PWM CCT
RB2 RC2	RB3 RC3	RB3 RC3	RB4 RC4	RB3 RC3	RB4 RC4

Remote Models

RB1   RB2   RB3   RB4

86–Type Panel Models

RC1   RC2   RC3   RC4

Touch Functions

ON	OFF	Brightness Level	Warm/Nature/ Cold White	White	Color HUE/ Temperature Ring
Brightness	Brightness	Brightness Ring	Temperature Ring	Color HUE Ring	Color HUE/ Temperature Ring
Speed	Mode+	Mode-	Music effect	1-4 Zones	All Zones

Note: 1.Within 20s after power on, long press the ON key: binding/unbinding the remote/panel; 2.Within 20s after power on, long press Zone1~4/ZoneAll, to set the Zones;

6.Technical Parameters:

SP530E

Working Voltage: DC5V~24V	Working Current: 20mA~85mA
PWM Single Channel Maximum Output Current: 6A	PWM Total Maximum Output Current : 12A
Working Temp: -10℃~60℃	Dimensions:78mm*56mm*20mm

2.4G Remote/Panel

Working Voltage:3V(CR2032)	Quiescent Current: 36uA
RF frequency: 2.4GHz	Remote Range:30M
Remote Dimensions: 135mm*46mm*10mm	Panel Dimensions: 86mm*86mm*12mm

7.Wiring:

Different types of LED correspond to different output ports; The ports should match the selected LED type, and the specific port descriptions are as follows:

	LED Type	Output Port						
		VCC	R	G	B	CW	WW	DAT	GND
1	1CH PWM Single Color	✓				✓	✓		
2	2CH PWM CCT	✓				✓	✓		
3	3CH PWM RGB	✓	✓	✓	✓				
4	4CH PWM RGBW	✓	✓	✓	✓	✓			
5	5CH PWM RGBCCT	✓	✓	✓	✓	✓	✓		
6	SPI Single Color	✓						✓	✓
7	SPI CCT	✓						✓	✓
8	SPI RGB	✓						✓	✓
9	SPI RGBW	✓						✓	✓
10	SPI RGBCCT	✓						✓	✓
11	SPI RGB+1CH PWM Single Color	✓				✓	✓	✓	✓
12	SPI RGB+2CH PWM CCT	✓				✓	✓	✓	✓

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