

SC+R9

RF 2.4G RGB/RGBW LED SPI Controller Set



SC control LED lights with the following 49 kinds of compatible ICs: TM1803, TM1804, TM1809, TM1812, UCS1903, UCS1909, UCS1912, SK6813, UCS2903, UCS2909, UCS2912, WS2811, WS2812, WS2813, WS2815, TM1829, TLS3001, TLS3002, GW6205, MBI6120, TM1814B(RGBW), SK6812(RGBW), WS2813(RGBW), WS2814(RGBW), UCS8904B(RGBW), LPD6803, LPD1101, D705, UCS6909, UCS6912, LPD8803, LPD8806, WS2801, WS2803, P9813, SK9822, TM1914A, GS8206, GS8208, UCS2904, SM16804, SM16825, SM16714(RGBW), UCS2603, UCS5603, SM16714D, SM16703P, UCS7604(RGBW), UCS7804(RGBW).

By RF remote controls you can select from a variety of dynamic lighting effects, adjust changing speed and brightness, set control pixels quantity, adjust R/G/B/W sequence, select IC type etc. you can also customize two kinds of scene modes to bring you fantastic color.

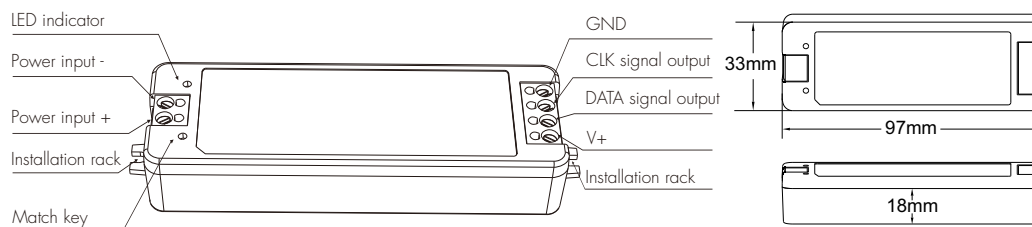
Features

- Mini-style RF 2.4G multi-pixel RGB/RGBW controller with SPI signal output.
- Output SPI signal to control a variety of digital LED lights with the compatible ICs listed above. IC type and R/G/B/W order can be set through the Remote.
- Adopt 2.4GHz wireless technology, remote distance up to 30m.
- Built in 40 dynamic mode, include horse-race, chase, flow, trail, gradual change style.

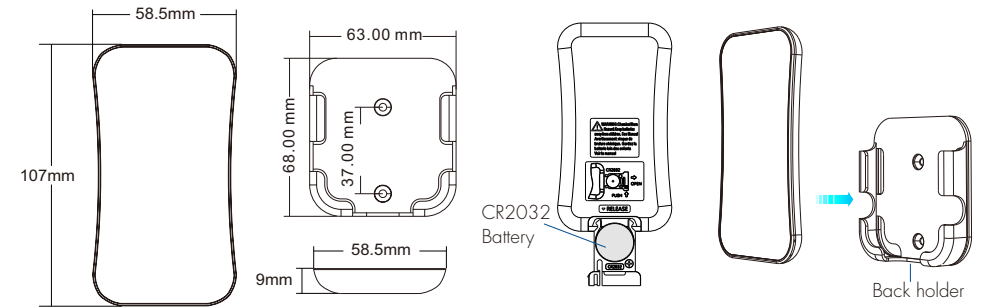
Technical Parameters

RF Remote		LED Receiver		Safety and EMC	
Output signal	RF 2.4GHz	Input voltage	5-24VDC	EMC standard	EN IEC 55015/ EN IEC 61547
Working voltage	3VDC(CR2032)	Input current	8A		ETSI EN 301 489-1/-3
Standby time	1 years	Output signal	SPI (DATA / CLK)	Safety standard	EN 61347-1/-2 EN 62493
Remote distance	30m	Output dots	1024 Max	Radio Equipment	ETSI EN 300 440
Size	L107xW58.5xH9mm	Size	L97xW33xH18mm	Certification	CE RoHS FCC

Mechanical Structures and Installations



SPI



Note:

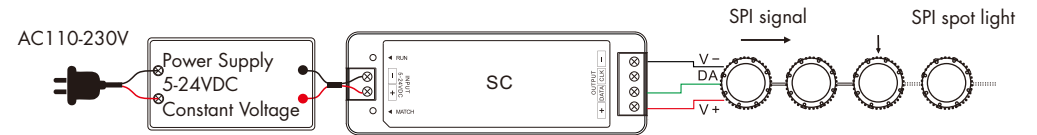
1. Before the first use, please remove the protective film on the battery.
2. If the LED indicator is not on when press key, it is due to dead battery or bad contact caused by multiple plugging, please replace the battery, or raise the battery shrapnel with a screw driver.

To fix the remote, two options are offered for selection:

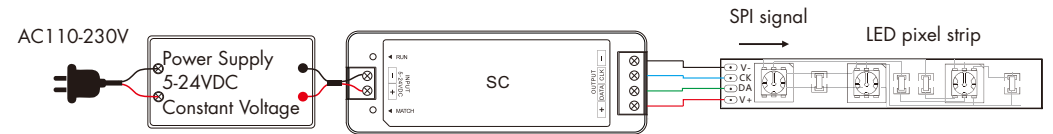
- Option 1:
fix the remote' back holder on the wall with two screws.
- Option 2:
adhere the remote' back holder to the wall with paster.

Wiring Diagram

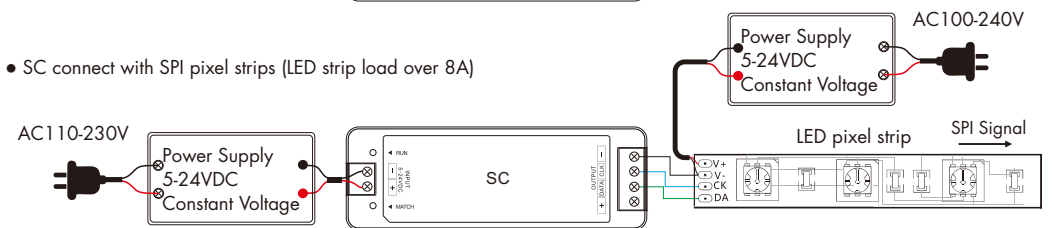
- SC connect with SPI spot light(TM1803)



- SC connect with one SPI pixel strips (WS2801)



- SC connect with SPI pixel strips (LED strip load over 8A)



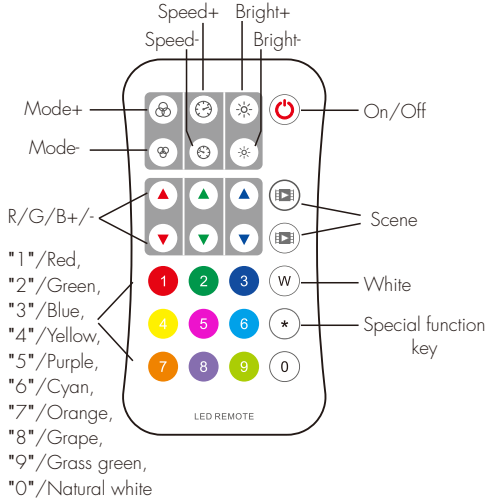
Note:

1. If the SPI LED strip is a single-wire control method, the DATA and CLK signal line outputs of the controller are same, and one controller can connect 2 LED strips.
2. When the load exceeds 8A, the light strip needs to be powered by other power supplies. Only DATA/CLK and GND cables are connected between the controller and the light strip.
3. The output power of the constant voltage power supply is at least 1.2 times that of the output load (light strip), otherwise the full power output of the load will easily cause the lights to flicker or shake automatically.

Match RF Remote

1. Match: Short press match key of the receiver, within 5s, press on/off key of the remote.
2. Delete: Long press match key of the receiver for 5s, delete all matched remote.

Remote Function



Mode+/-: Short press switch dynamic mode built in controller, long press 2s Mode+ run mode cycle, long press 2s Mode- run the first mode. Default 32 dynamic modes, long press the Mode+ key for 2s will automatically get the current number of dynamic modes of the controller.

Speed+/-: Adjust dynamic mode speed, short press 10 levels, long press 2s get the fastest / slowest speed.

Bright+/-: Adjust brightness, short press 10 levels, long press 1-5s for continuous 256 levels adjustment.

R/G/B+/-: Adjust R/G/B brightness respectively, short press 10 levels, long press 1-5s for continuous 256 levels adjustment.

White: Adjust white color, short press turn on/off white(RGB mix), long press 1-5s for continuous 256 levels saturation adjustment.

Scene: Two scene memory, short press recall the scene, long press 2s save current color into the scene.

RGB color light +W white light settings:

When the remote control is used for RGBW light control, it can be operated by long pressing key and key for 2s at the same time, to set both RGB color light and VW white light can be turned on at the same time or can not be turned on at the same time two ways.

When the red indicator blinks twice, set the RGB color light and VW white light can not be turned on at the same time, That is, when the RGB color light is on, the white light automatically turn off, and when the white light is on, the RGB color light automatically turn off.

When the red indicator blinks four times, set the RGB color light and VW white light are turned on at the same time(factory default).

Dynamic Mode List

No.	Name	No.	Name	No.	Name
P01	Red horse race white ground, forward	P16	Blue meteor, backward	P31	7 color jump sectionally, forward
P02	Green horse race white ground, forward	P17	Purple meteor, backward	P32	7 color strobe sectionally, forward
P03	Blue horse race white ground, forward	P18	White meteor, backward	P33	White horse race (RGB jump)
P04	Yellow horse race blue ground, forward	P19	7 color meteor, backward	P34	White smooth horse race (RGB smooth)
P05	Cyan horse race blue ground, forward	P20	Red float, forward	P35	White starlight (RGB random jump)
P06	Purple horse race blue ground, forward	P21	Green float, forward	P36	White smooth starlight (RGB random smooth)
P07	7 color multi horse race, forward	P22	Blue float, forward	P37	White flow, forward
P08	7 color horse race close + open	P23	Purple float, forward	P38	White flow, forward on + backward off
P09	7 color multi horse race close + open	P24	RGBW float, forward	P39	White flow, forward on + backward on
P10	7 color scan close + open	P25	Red Yellow float, forward	P40	White float
P11	7 color multi-scan close + open	P26	Green Cyan float, forward		
P12	Blue White chase, forward	P27	Blue Purple float, forward		
P13	Green Cyan chase, forward	P28	Blue White float, forward		
P14	RGB chase, forward	P29	6 color float, forward		
P15	7 color chase, forward	P30	6 color smooth sectionally, forward		

Note:
P33-P40 dynamic modes are applicable to SPI type white light strip.
P33-P36 dynamic modes, if the color SPI strip is connected, the corresponding color effect will appear.

Compatible IC Type

No.	IC type	Output signal	No.	IC type	Output signal
C11	TM1803	DATA	C22	LPD8803,LPD8806	DATA,CLK
C12	TM1809, TM1804, TM1812, UCS1903, UCS1909, UCS1912, SK6813, UCS2903, UCS2909, UCS2912, WS2811, WS2812, WS2813, WS2815, SM16703P	DATA	C23	WS2801,WS2803	DATA,CLK
			C24	P9813	DATA,CLK
			C25	SK9822	DATA,CLK
			C31	TM1914A	DATA
C13	TM1829	DATA	C32	GS8206,GS8208	DATA
C14	TLS3001,TLS3002	DATA	C33	UCS2904	DATA
C15	GW6205	DATA	C34	SM16804	DATA
C16	MBI6120	DATA	C35	SM16825	DATA
C17	TM1814B(RGBW)	DATA	C36	SM16714(RGBW)	DATA
C18	SK6812(RGBW),WS2813(RGBW), WS2814(RGBW)	DATA	C37	UCS5603	DATA
			C38	UCS2603	DATA
C19	UCS8904B(RGBW)	DATA	C39	SM16714D	DATA
C21	LPD6803,LPD1101,D705, UCS6909,UCS6912	DATA,CLK	C41	UCS7604(RGBW)	DATA
			C42	UCS7804(RGBW)	DATA

Use Remote Set SPI LED Strip

- Set LED strip length [Pixel number(8~1024)]. * + 3 number + * for example:
 - *032*, set pixel number to 32.
 - *600*, set pixel number to 600.
 - *1024*, set pixel number to 1024.
- Set LED strip chip type. * + 2 number + *
 - *11*: TM1803
 - *12*: TM1809,TM1804,TM1812,UCS1903,UCS1909,UCS1912,SK6813,UCS2903,UCS2909, UCS2912,WS2811,WS2812,WS2813,WS2815, SM16703P
 - *13*: TM1829
 - *14*: TLS3001,TLS3002
 - *15*: GW6205
 - *16*: MBI6120
 - *17*: TM1814B(RGBW)
 - *18*: SK6812(RGBW),WS2813(RGBW),WS2814(RGBW)
 - *19*: UCS8904B(RGBW)
 - *21*: LPD6803,LPD1101,D705,UCS6909,UCS6912
 - *22*: LPD8803,LPD8806
 - *23*: WS2801,WS2803
 - *24*: P9813
 - *25*: SK9822
 - *31*: TM1914A
 - *32*: GS8206,GS8208
 - *33*: UCS2904
 - *34*: SM16804

- *35*: SM16825
 - *36*: SM16714(RGBW)
 - *37*: UCS5603
 - *38*: UCS2603
 - *39*: SM16714D
 - *41*: UCS7604(RGBW)
 - *42*: UCS7804(RGBW)
 - Set LED strip RGB order. * + 1 number + *
 - *1*: RGB, *2*: RBG, *3*: GRB, *4*: GBR, *5*: BRG, *6*: BGR.
 - Set RGBW LED strip RGB and W order.
 - *7*:W after RGB
 - *9*:W before RGB
- Example: *1* + *7* set RGBW order, *1* + *9* set WRGB order.

Restore Factory Default Settings

Factory default parameters: RGB light type, pixel length 300, C12 chip type.

1. Long press the match key for 10s, restore the factory default parameter settings, and set RGB color light and W white light can be turned on at the same time (When changing the chip type to RGBW lighting).
2. Long press the match key for 15s, restore the factory default parameter settings, and set RGB color light and W white light can not be turned on at the same time (When changing the chip type to RGBW lighting).

Safety Information

1. Read all instructions carefully before you begin this installation.
2. When installing battery, pay attention to the battery positive and negative polarity.
 - A long time without the remote control, remove the battery.
 - When remote distance becomes smaller and insensitive, replace the battery.
3. If no response from the receiver, please re-match the remote.
4. Gently handle remote, beware of falling.
5. For indoor and dry location use only.
6. Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children.
 - Do NOT dispose of batteries in household trash or incinerate.
7. Even used batteries may cause severe injury or death.
8. Call a local poison control center for treatment information.
9. Compatible battery type is CR2032 and the nominal battery voltage is 3V.
10. Non-rechargeable batteries are not to be recharged.
11. Do not force discharge, recharge, disassemble, heat above 55°C or incinerate.
 - Doing so may result in injury due to venting, leakage or explosion resulting in chemical burns.
12. Ensure the batteries are installed correctly according to polarity (+ and -).
13. Do not mix old and new batteries, different brands or types of batteries, such as alkaline, carbon-zinc, or rechargeable batteries.
14. Remove and immediately recycle or dispose of batteries from equipment not used for an extended period of time according to local regulations.
15. Always completely secure the battery compartment. If the battery compartment does not close securely, stop using the product, remove the batteries, and keep them away from children.

Statement

FCC ID Statement:

Mobile

RF Exposure Information

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

FCC Statement:

This device complies with Part 15 of the FCC Rules. operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

IC Statement:

This Class B digital apparatus complies with Canadian ICES-003.

(Cet appareil numérique de la Classe B conforme à la norme NMB-003 du Canada).