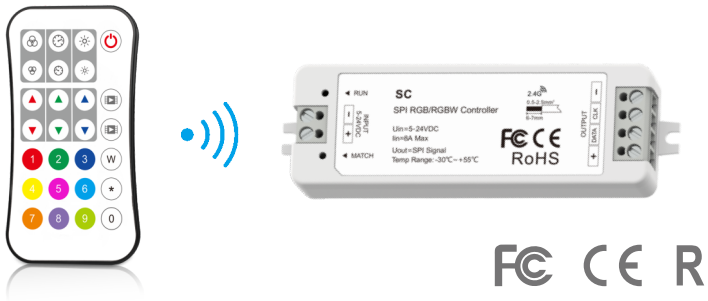
SC+R9

SPI

RF 2.4G RGB/RGBW LED SPI Controller Set



FC CE RoHS

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.

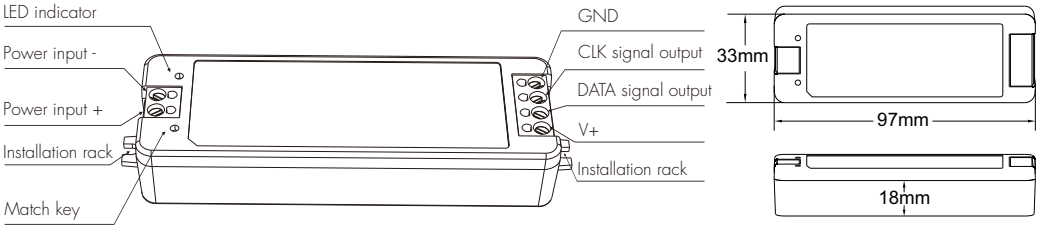
Features

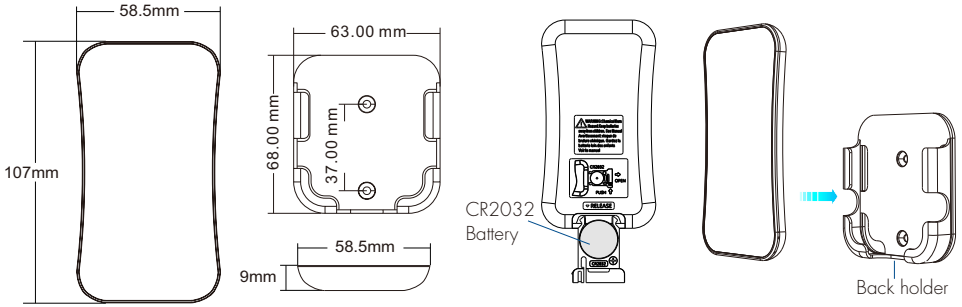
- Mini-style RF 2.4G multi-pixel RGB/RGBW controller with SPI signal output.
- Output SPI signal to control a variety of digital LED lights with the compatible ICs listed above. IC type and R/G/B/W order can be set through the Remote.
- Adopt 2.4GHz wireless technology, remote distance up to 30m.
- Built 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 ETSI EN 301 489-1/-3
Working voltage	3VDC(CR2032)	Input current	8A	Safety standard	EN 61347-1/-2 EN 62493
Standby time	1 years	Output signal	SPI (DATA / CLK)	Radio Equipment	ETSI EN 300 440
Remote distance	30m	Output dots	1024 Max	Certification	CE RoHS FCC
Size	L107xW58.5xH9mm	Size	L97xW33xH18mm		

Mechanical Structures and Installations



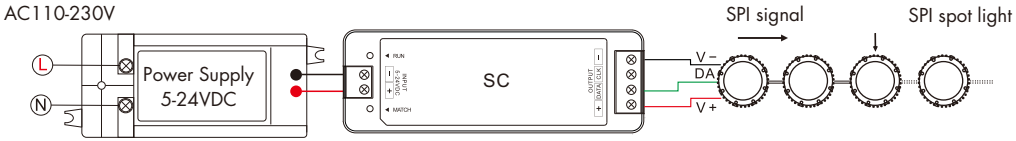


Note:
1. Before the first use, please remove the protective film on the battery.
2. If the LED indicator is not on when press key, it is due to dead battery or bad contact caused by multiple plugging, please replace the battery, or raise the battery shrapnel with a screw driver.

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.

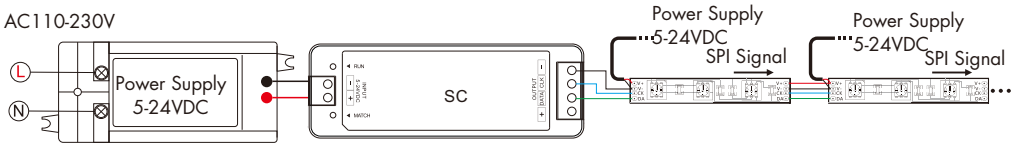
Wiring Diagram

- SC connect with SPI spot light(TM1803)



- SC connect with one SPI pixel strips (WS2801)

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

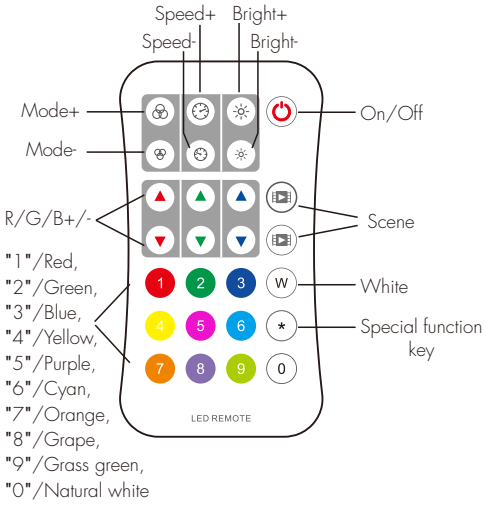


Note:
1. If the SPI LED strip is a single-wire control method, the DATA and CLK signal line outputs of the controller are same, and one controller can connect 2 LED strips.
2. When the load exceeds 8A, the light strip needs to be powered by other power supplies. Only DATA/CLK and GND cables are connected 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.

Dynamic Mode List

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

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℃ 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 wth 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).