



Rose Lighting

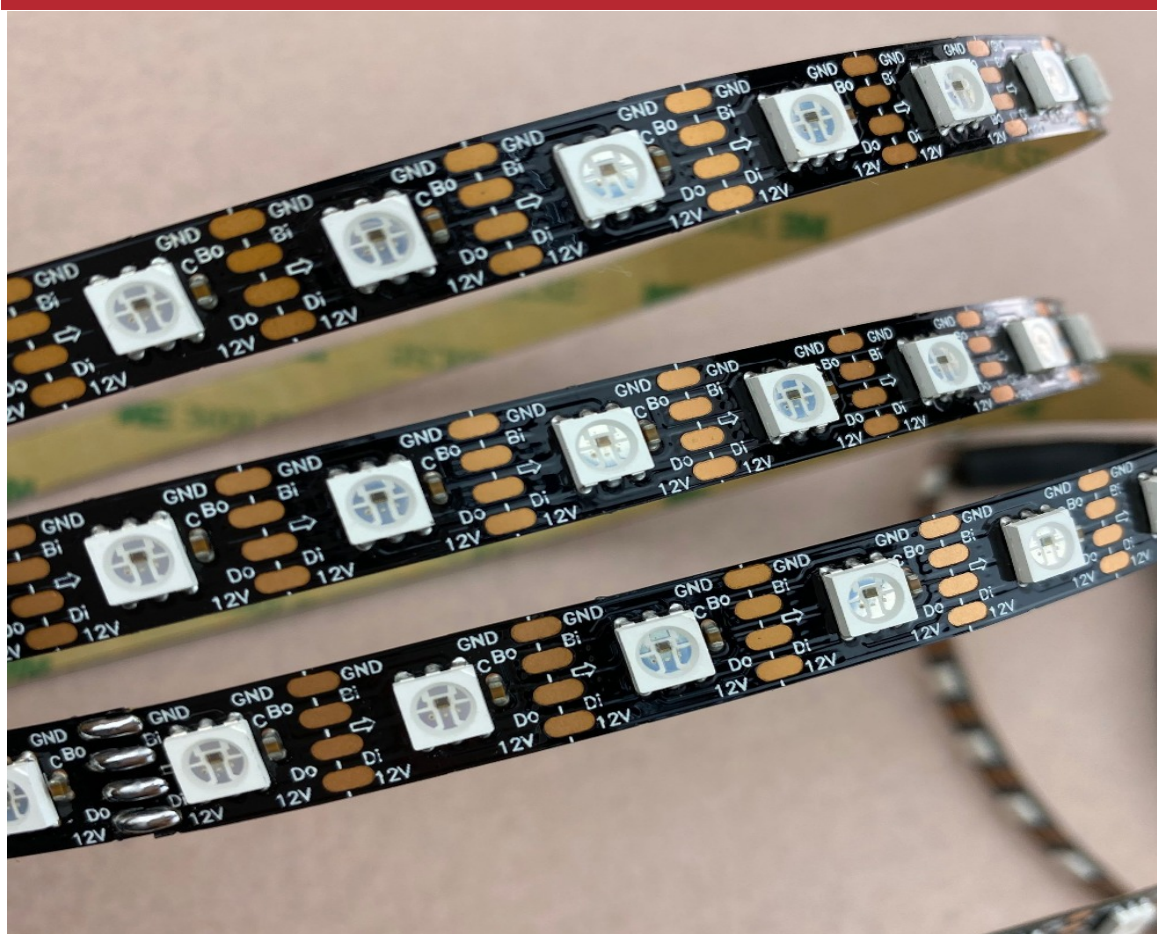
Model: RL-STR-sk6813-5050RGB-60-12V



<https://www.rose-lighting.com> TEL:0755-23763467 Phone:008618675649004 Email:info@rose-lighting.com

Add: No.53 Yuexing Rd, Guanlan Street ,Longhua District,Shenzhen, China 518110

Model: RL-STR-sk6813-5050RGB-60-12V



Advantages

1. PWM refresh rate: 1.2kHz, transfer speed 800k bps
2. It comes in 1 meters per reel with 3Pin female/male JST SM connector on both end and separated Power / Ground Wires . Customized length is workable .
3. 12V (1leds one IC with 12V)
4. 2unce PCB boardwith double cooper layer(hongqi brand 3535 copper)
- 5.double sides membrane cover the pcb board. make sure the copper no drop from the pcb board
6. Flexible PCB material . ever 1 LEDcan be cut with 12V,
7. 60 leds per meter . 12V low voltage inputted , don't over 13V , otherwise you will destroy the entire strip .
8. Controller SystemSD controller , DMX controller , Artnet and so on .(SPI protocol)
9. Installing : screw+silicon clip and 3M adhesive on back side for sticky

Technical Parameters

Part NO	RL-STR-sk6813-5050RGB-60-12V
Lighting Source	Sk6813 5050 RGB Pixel led
Beam Angel	120 degree
SPI control	Sk6813 SPI control(same as ws2812B)
Operate Voltage Consumption Watt/M	DC 12V14.4/m per meter (max)
FPCB quality	Double layer 3535 Copper with 20ounce
LED quantity /M	60 leds per meter
Luminance (mcd)	1500MCD for one RGB 5050 led
Feature	dual signal,one pixel broken,no affect next one working
Cable	AWG20 with 10cm long
Plug	3pin SM JST Female and male connector
Waterproof Grade	IP20/65/67/68
Packaging	5m/reel
warranty	2 years

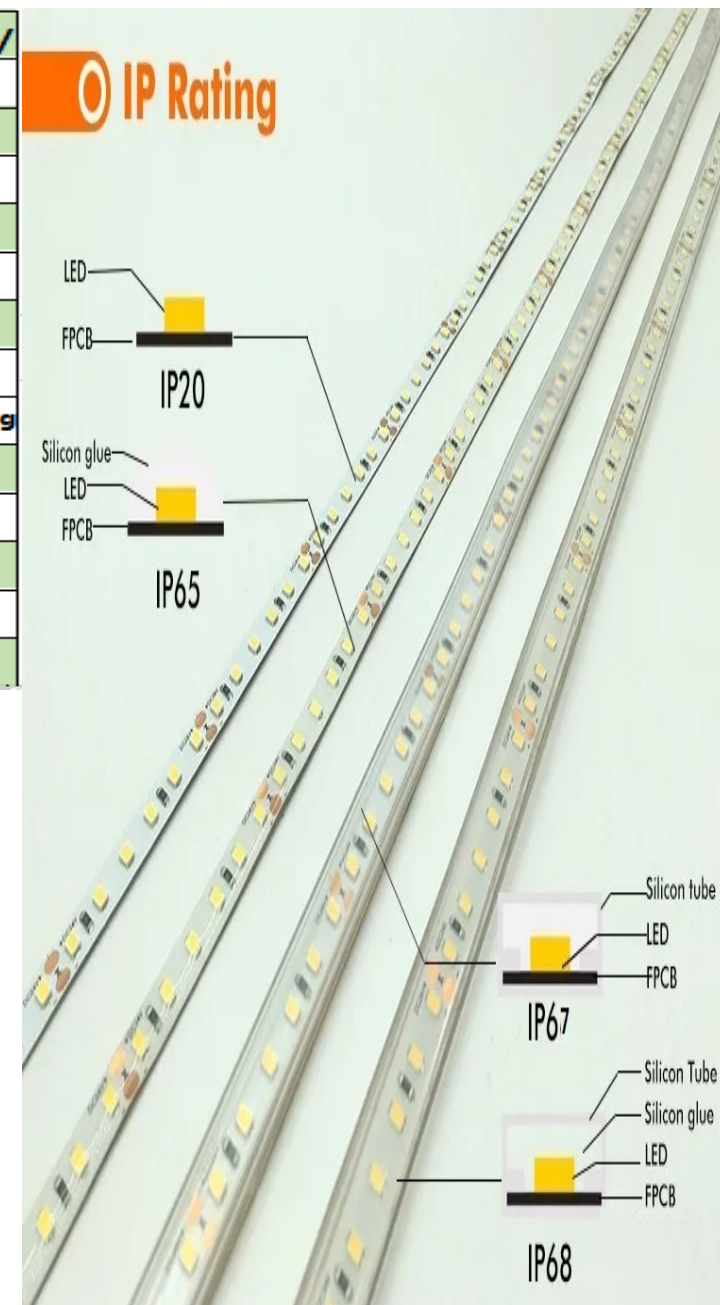
There is 3 Pin JST SM female/male connector on both end for signal input/output
and power inputs at ends

Input: Female Connector output : male Connector



+Dc12V: Red
Data1: Green
Data2: Blue
GND: White

GND DI BI VCC



sk6813 LED lamp parameter

8. Absolute Maximum Ratings (Ta=25°C,VSS=0V) :

Parameter	Symbol	Range	Unit
Power supply voltage	VDD	+0.4~+13	V
Logic input voltage	V _{IN}	-0.5~VDD+0.5	V
Working temperature	T _{opt}	-40~+80	°C
Storage temperature	T _{stg}	-40~+80	°C
ESD pressure(HBM)	V _{ESD}	2K	V
ESD pressure(DM)	V _{ESD}	200	V

9. Electrical/Optical Characteristics:

Color	SK6813HV-09-6P 9mA		
	Dominant wavelength(nm)	Luminance(mcd)	Luminous flux(lm)
Red	620-630	300-500	1.0-2.0
Green	515-530	1000-1500	3.0-4.0
Blue	460-475	200-400	0.5-1.0

10. The IC electrical parameters (unless otherwise specified, TA=-20 ~ +70 °C):

Parameter	Symbol	Min	Typical	Max	Unit	Test conditions
The chip supply voltage	V _{DD}	10.8	12	13.2	V	---
The signal input flip threshold	V _{IH}	4.0	---	---	V	---
	V _{IL}	---	---	1.0	V	
The frequency of PWM	F _{PWM}	---	1.2	---	KHZ	---
Static power consumption	I _{DD}	---	2	---	mA	---

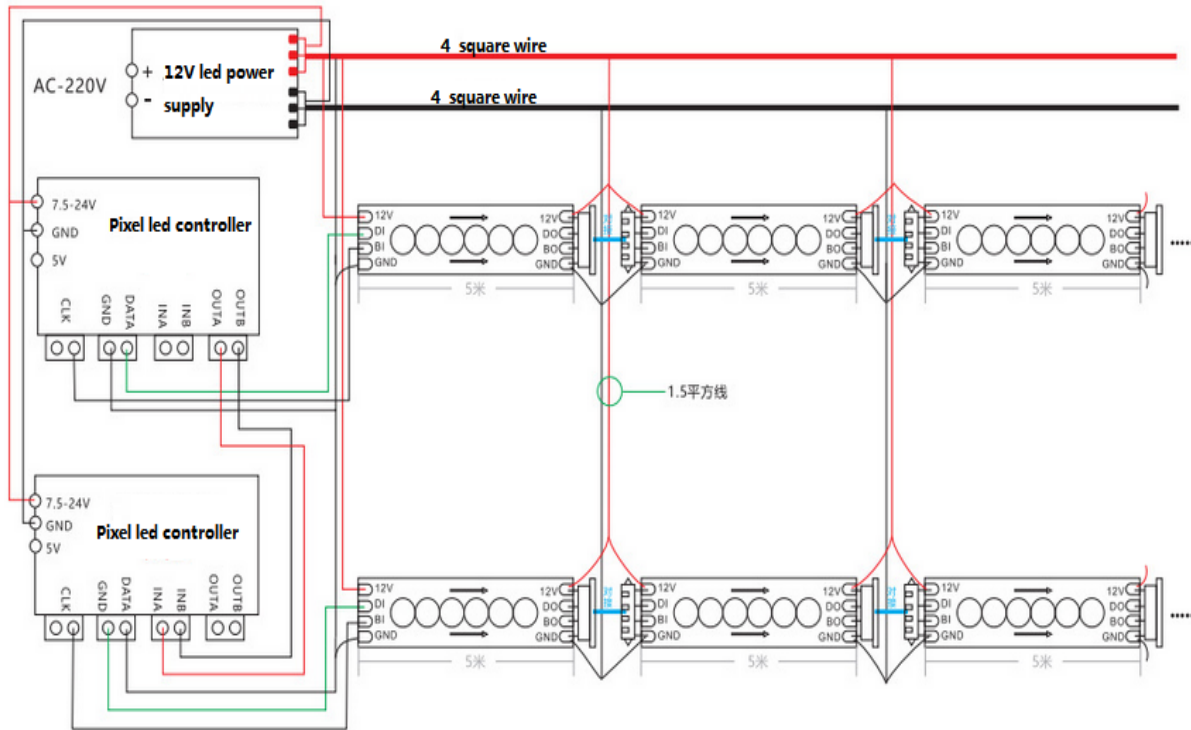
11. Switching characteristics (Ta=25 °C):

Parameter	Symbol	Min	Typical	Max	Unit	Test conditions
The speed of data transmission	f _{DIN}	---	800	---	KHZ	The duty ratio of 67% (data 1)
DOUT transmission delay	T _{PLH}	---	---	500	ns	DIN→DOUT
	T _{PHL}	---	---	500	ns	

Certifications



Wiring Chart

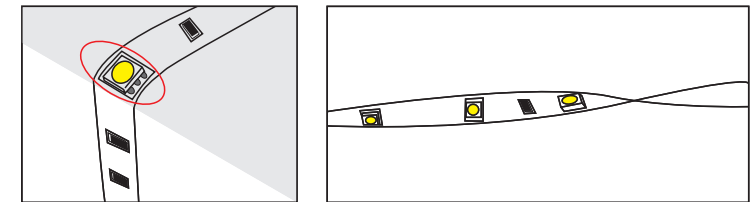
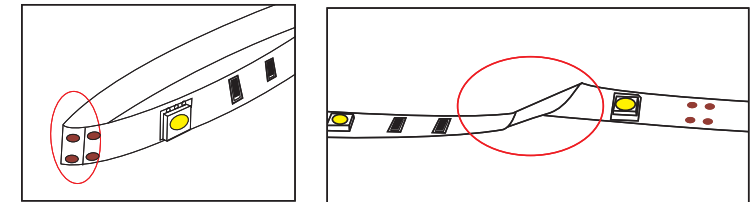


Note:

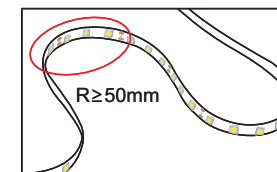
1. One Aluminum Foil Bag for one roll of LED strip, 5M/roll.
2. All the packaging materials are RoHS standard.
3. Heavy stuff are not allow to be loaded above the packaging box.

⚠ Cautions:

- When install the led strip , please note the installation technique. The led strip can be bent, but not distorted, as shown below:



Distortion(Wrong)



Bend(Right)

- LED strips are low voltage products, you must use the power supply(transformer). Please don't connect the led strip directly to the AC110 or AC220V, otherwise it will burn out the LED strips.
- Clean up the installation surface, it will ensure the reliability of the adhesive.
- The electrical connection process must be operated by a professional person.

Package

