

DESCRIPTION: RX-CK-F4 waterproof LED module, using the new PCB design, exact match top LED, is the world's most efficient LED modules (over 110Lm / W), ultra-thin, low temperature rise, waterproof, long life Characteristics. Backlighting for advertising, advertising plastic characters, Blister words backlit, LED signs. Compared to similar LED modules, at least 50% higher luminous efficiency, saving 50%. Also applies to all places lighting decoration, make your own energy-saving lighting project.



Features:

1. World's highest luminous efficiency of LED modules, light effect more than 110LM / W(white)
2. Match the DC DC converter can achieve 12 ~ 24V wide voltage input.
3. Waterproof IP65
4. Appearance of fine, ultra-thin thickness of 3.5mm
5. Full aluminum heat dissipation, low temperature rise, the strict high and low temperature experiments, higher reliability
6. Long life ≥ 50000 hrs.
7. 3 years warranty

Scope of application:

A variety of advertising signs backlighting; Blister words lightbox;DIY Light source.

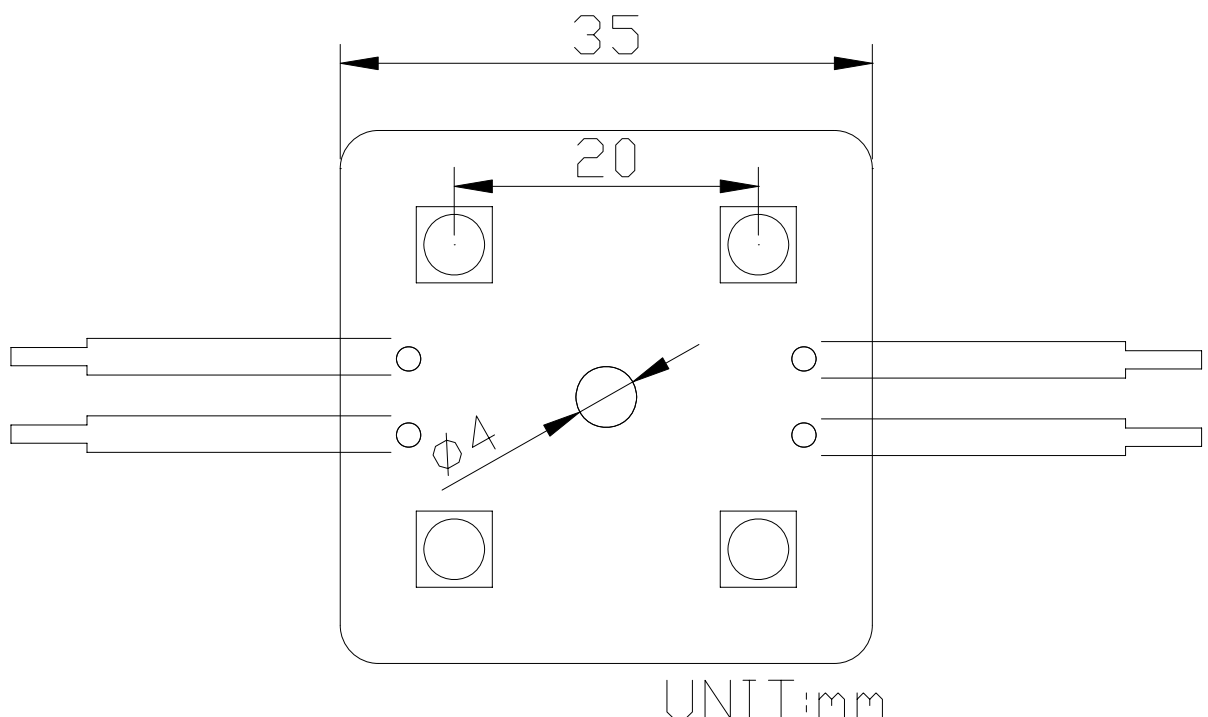
Electronical Specifications:

Input Voltage: DC 9.6V (Optional DC 12V)
 Power: the table below
 Brightness: the table below
 Viewing angle: 120
 luminous efficiency: ≥ 110 Lm / W (white)
 Color rendering index: Ra 75 (optional Ra 80) Available
 colors: white, warm white, red, green, blue, yellow
 Lumen Maintenance: $>95\%$ @1,000hrs

Mechanical Specifications:

Size: 35x35x3.5mm
 Weight: 15g/pcs
 Package Size:
 Working Temperature: $-20\text{ }^{\circ}\text{C} \sim 50\text{ }^{\circ}\text{C}$
 Storage temperature $-20\text{ }^{\circ}\text{C} \sim 80\text{ }^{\circ}\text{C}$
 Standard LED Module Lead: 20AWG cable, yellow or gray wire for the positive anode, white wire is negative

※Standard of 20 modules per string, the module spacing of 80mm wire.

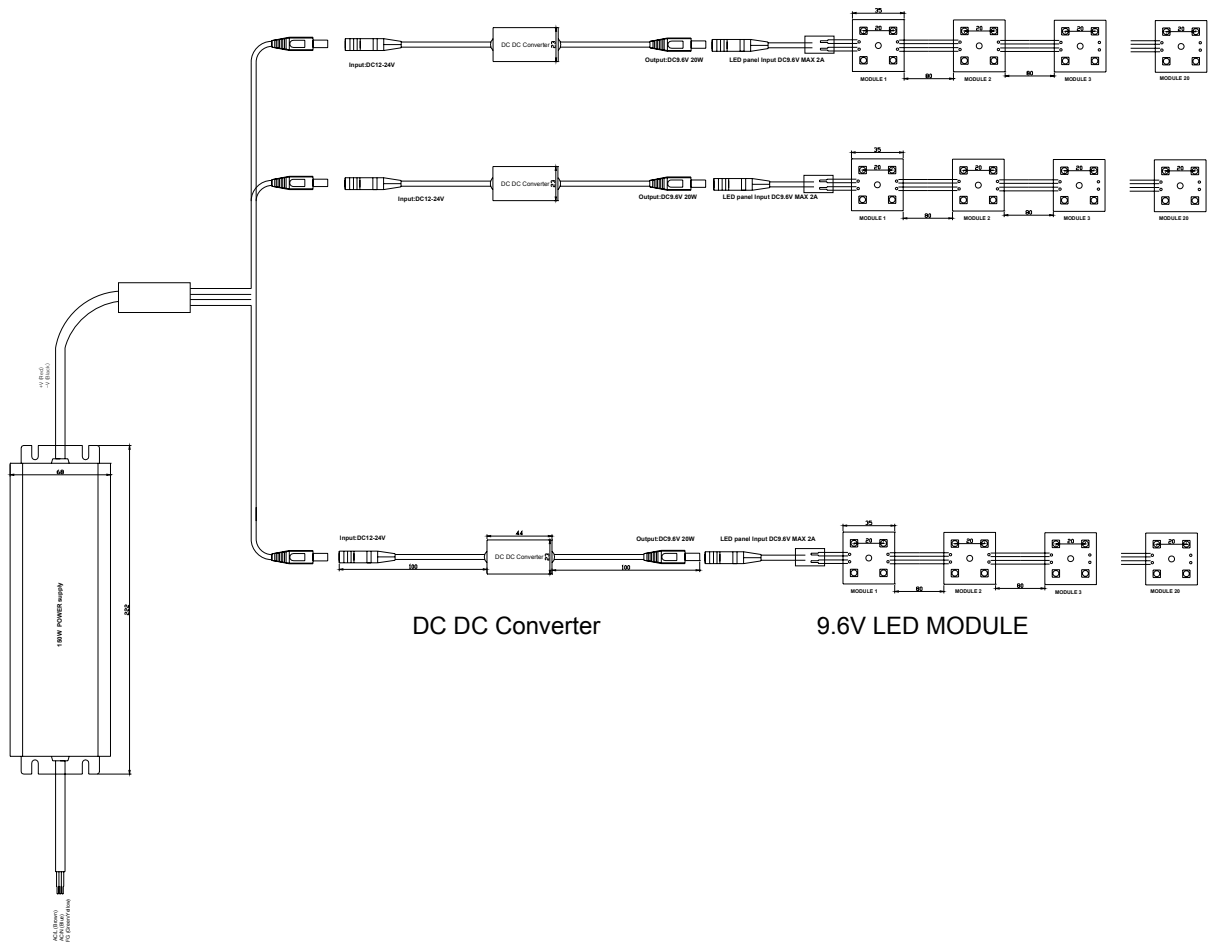


Type data sheet:
9.6V LED Module

MODULE	SIZE (LxWxH)	COLOUR	Luminous flux Lm	Power	Input Voltage	Available to the DC DC Controller	Max series
RX-CK-F4-96W	35x35x3.5mm	6500K	85Lm	0.75W	9.6V	EF-DC-2A Input 12-24V Output 9.6V 2A	20
RX-CK-F4-96WW		3200K	82Lm	0.75W			20
RX-CK-F4-96B		Blue	12.8Lm	0.75W			20
RX-CK-F4-96G		Green	45Lm	0.75W		EF-DC-8A Input 12-15V Output 9.6V 8A	20
RX-CK-F4-96R		Red	25.6Lm	0.58W			25
RX-CK-F4-96Y		Yellow	15Lm	0.58W			25
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Note: 9.6V LED compared to 12V LED, 24% higher luminous efficiency, increase the DC DC converter power, luminous efficiency is still higher than 20%.

Please use our high-precision long life high efficiency DC DC Converter, less than 20W, please use the [EF-DC-2A](#), is less than 100W, please use the [EF-DC-8A](#)

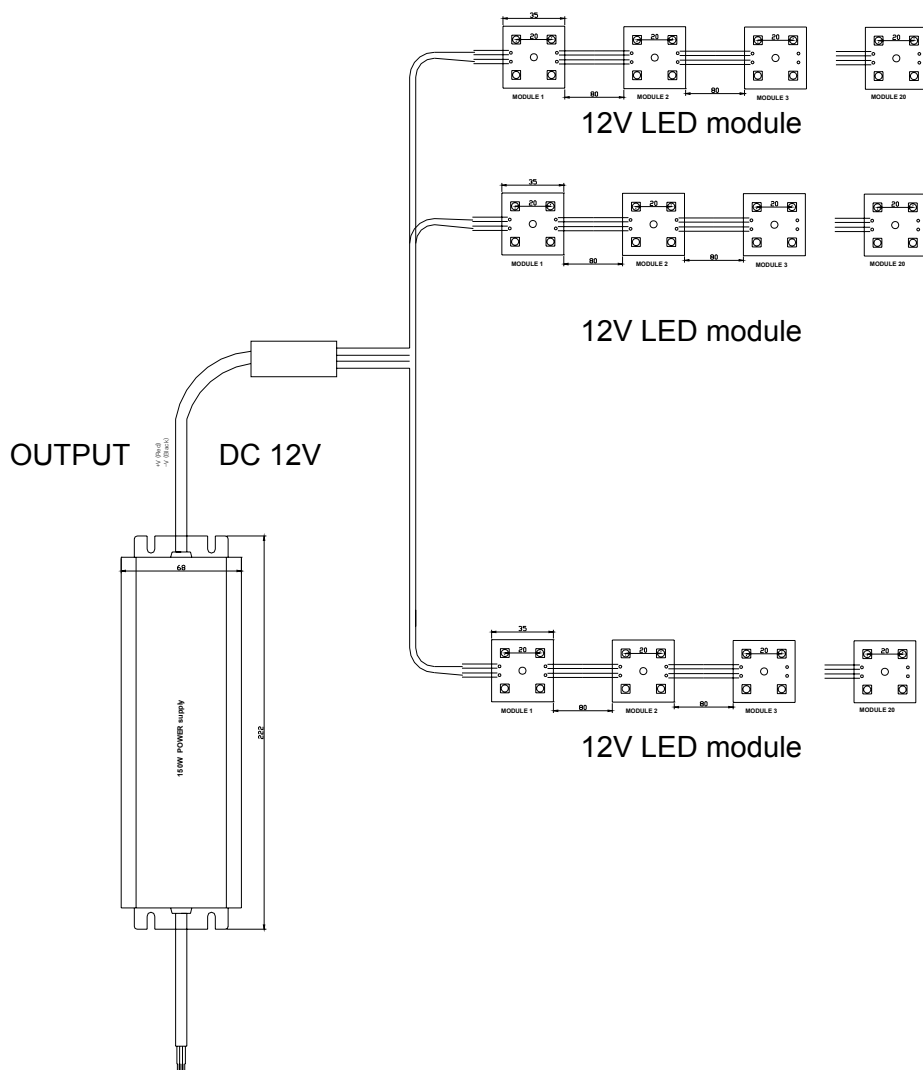


Power supply input 100-240v AC

CAUTION: This product is installed by a professional engineering staff

12V LED module

MODULE	SIZE (LxWxH)	COLOUR	Luminous flux Lm	Power	Input Voltage	Available to the DC DC Controller	Max series
RX-CK-F4-12W	35x35x3.5mm	6500K	85Lm	0.96W	12V		20
RX-CK-F4-12WW		3200K	82Lm	0.96W			20
RX-CK-F4-12B		Blue	12.8Lm	0.96W			20
RX-CK-F4-12G		Green	45Lm	0.96W			20
RX-CK-F4-12R		Red	25.6Lm	0.72W			25
RX-CK-F4-12Y		Yellow	15Lm	0.72W			25
--		--	RGB	--			--



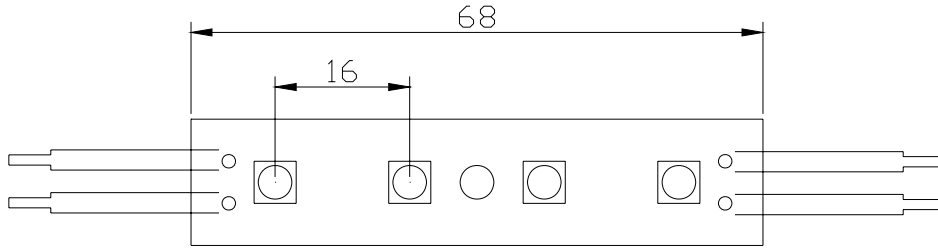
Power supply AC input



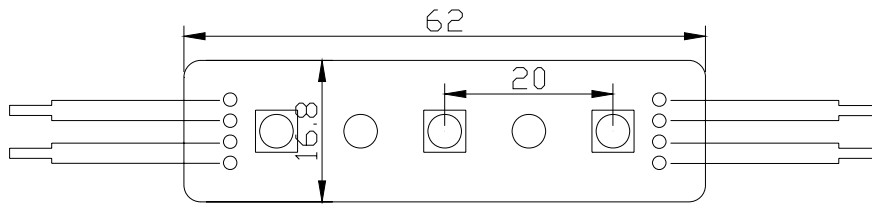
Note:

- 1, The thickness of wire decided by the max actual current, power, the wiring length (Less than 5M is recommended) and the low voltage wire.
- 2, Max 20pcs in a series.
- 3, Mind waterproof at wire output port.
- 4, Static touch and hotline work strictly prohibited.
- 5, Qualified switch power supply is recommended (with short circuit, overvoltage and overload protection, certificated).
- 6, No crash and crush, avoiding over buckled.
- 7, Mounting surface need to be even, clean and dry.
- 8, Preventing from drench and vibration.
- 9, Switch power supply must work in ventilation and dry environment.
- 10, Normally 80% power is used for switch power supply.
- 11, Wire connection please follow the sign on module, yellow wire for anode, red / green / blue / white for cathode.

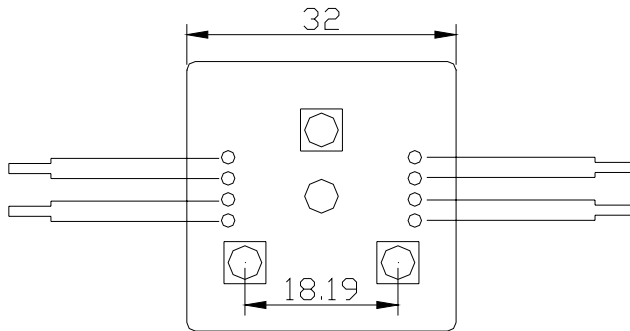
Related Products



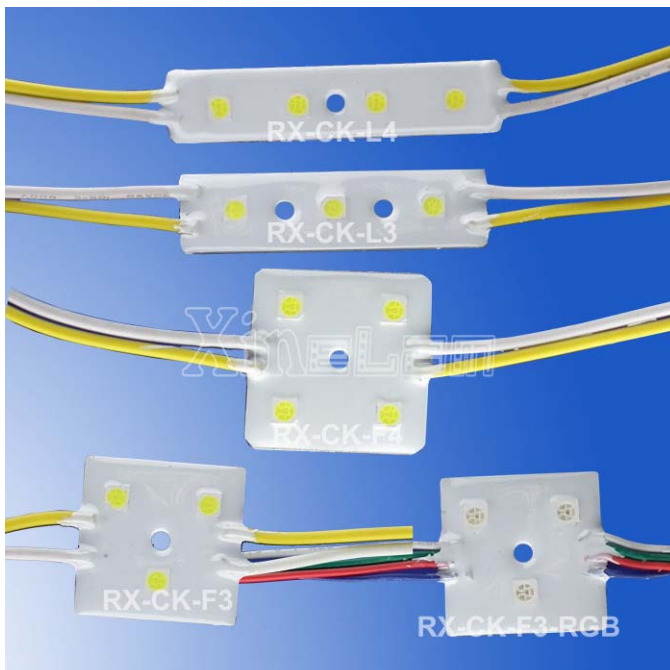
RX-CK-L4



RX-CK-L3



RX-CK-F3



Attachment:

Why are our LED modules are the world's most energy-efficient modules, than other similar products in more than energy saving 50%.

Answer:

1. Our LED modules with the top LED, light effect over 110Lm / W, General Product 70Lm / W or less, saving 57%
2. Filter pressure drop precision 3.2V LED, 9.6v power supply, ballast resistors to reduce losses, see the drawings shows; saving 20%.
3. The most reasonable circuit design, such as red and yellow module we use a set of 4 LED design, LED modules so that the whole has a higher luminous efficiency, compared to a group of two LED's LED modules, energy saving 53%

Why not use constant current power supply

Answer:

We know the best drive LED light is constant current power supply, but the LED modules are generally used for advertising projects, each of the number of occasions, there may be 3, 5 may be 20, if you use constant current power supply To require the constant current power supply with a different, very complex, and, when one module open, it will have serious repercussions. Constant voltage power supply can be very simple to use, as long as the same voltage module can be used in parallel, the total power rating of not more than drive it. Years of practice, proved constant drive LED module is safe to use and reliable.

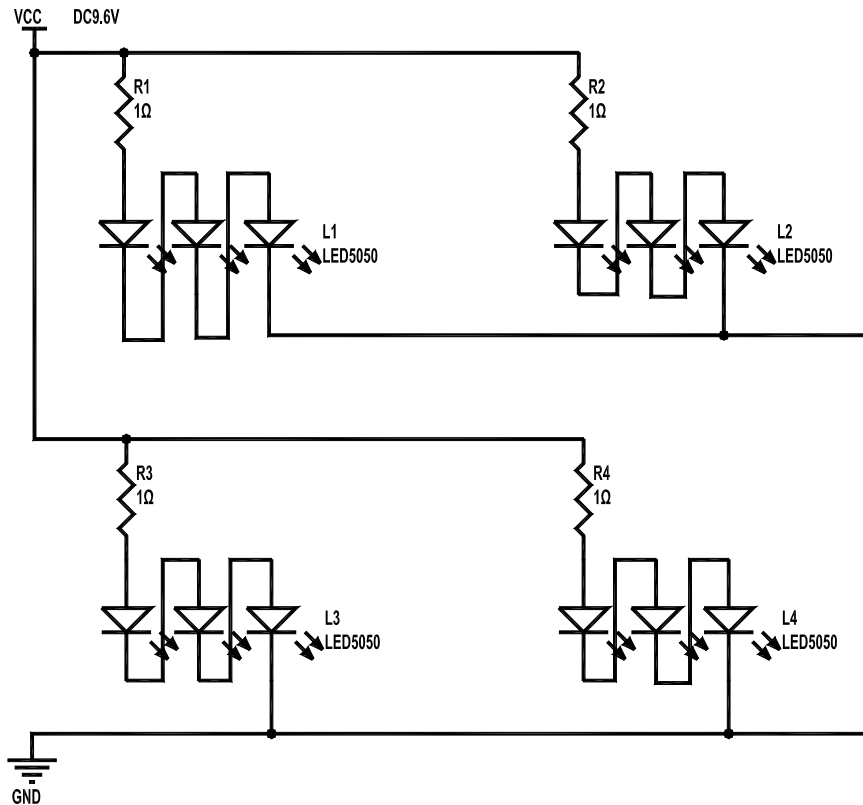
9.6V LED module and 12V LED module advantages and disadvantages

Answer:

9.6V LED module has a higher luminous efficiency compared to 12v LED modules can improve the light efficiency of 25%, but the drive voltage requirements of high accuracy (error of each voltage 0.1V, corresponding to 7% of the current fluctuations), 9.6V Power is difficult to buy, so we developed a DC DC converter, the same input voltage of 12V, using EF-DC-2A DC DC converter and 9.6V LED modules, LED efficiency can be increased by 20% or 20% energy saving.

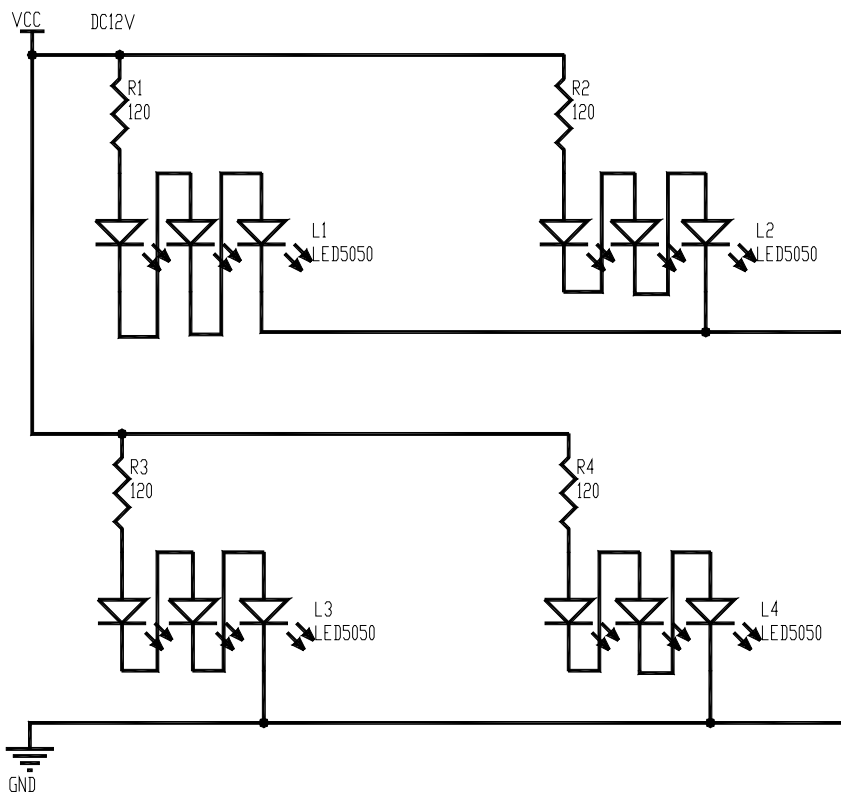
12V LED module is simple and reliable (each 0.1V voltage error, corresponding to 3% of the current fluctuations), the 12v power supply is easy to buy, easy to install, is the most widely used modules.

Since we can be equipped with DC DC converters, it is recommended to use 9.6v LED module plus DC DC converters, In time energy-saving 20%.



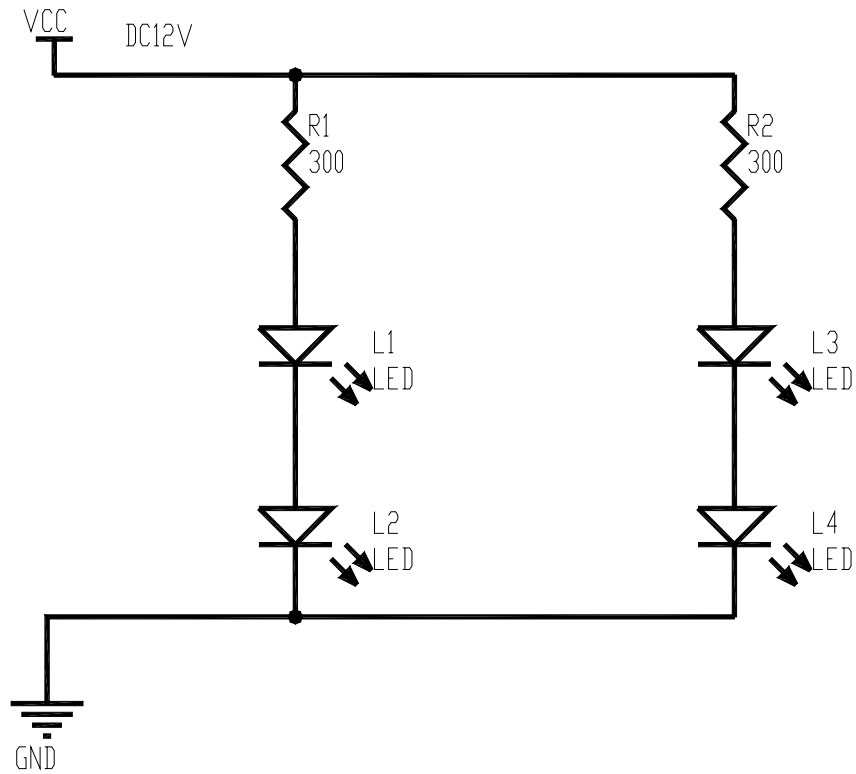
9.6V LED module schematic circuit diagram

Use 1Ω resistors, resistive losses accounted for 0.2% of LED power consumption is almost negligible



12V LED module schematic circuit diagram

Using the 120Ω resistor, the resistance loss accounted for 25% of LED power



LED modules manufacturers are using many of the circuit, is also possible that you are using this LED module; waste 50% of the energy.

Use 300Ω resistors, resistive losses accounted for 93% LED power, almost equal to the LED power consumption, half of the energy wasted