

# SPA030 Pixel light

## Description



The SPA030 pixel light is a low power LED string product designed for outdoor landscape lighting. It adopts engineering grade flame-retardant plastic PC shell, which is sealed and waterproof by high thermal conductivity and weather-resistant PU glue; the lamp point is small in size and exquisite in appearance; the light string is connected by the national standard flexible cable, which can be bent and deformed at will, and supports the installation of special-shaped façade; The product spacing and color can be customized; it is suitable for large-area display or lighting of building facades, bridges and skylights.

### Features:

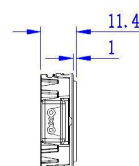
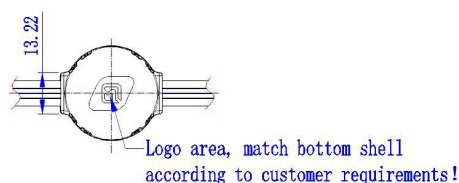
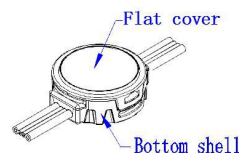
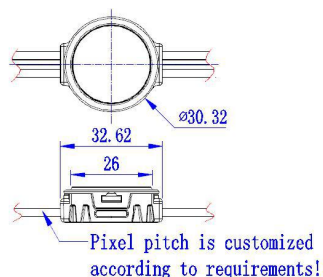


- ★ A new generation of TTL serial technology design
- ★ Standard DMX512 Control Protocol
- ★ Industry-leading wireless button-type anti-smash connection design
- ★ High thermal conductivity glue full potting waterproof design
- ★ Outdoor lightning protection and Electrostatic (ESD) special protection design
- ★ Flexible, flexible application, multiple mounting methods
- ★ Steel cable installation light transmittance up to 90%
- ★ Support RGB/W current separately adjustable (low light and high gray)

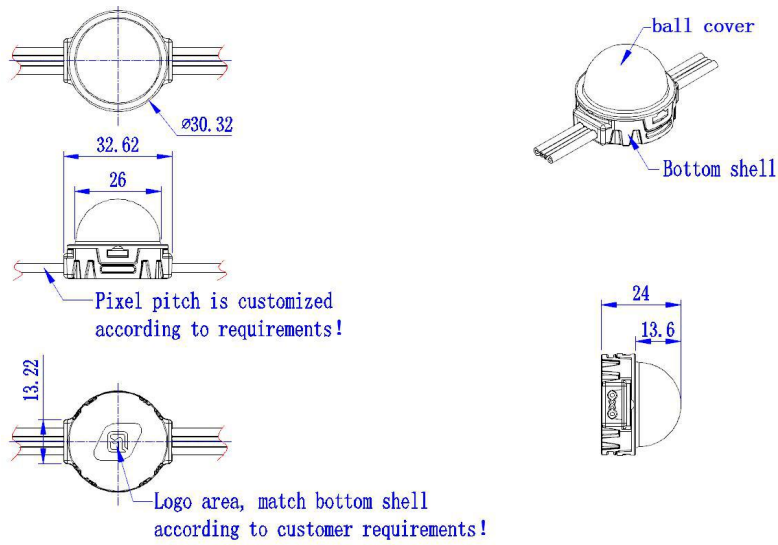
Application environment: indoor, outdoor

## Measurement (Unit:mm)

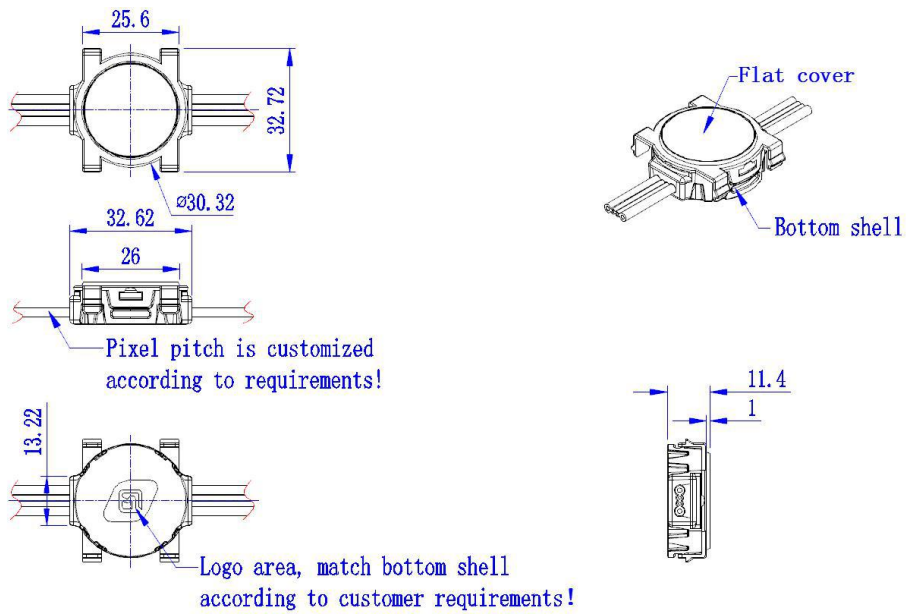
### 1、 Base installation flat cover measurement



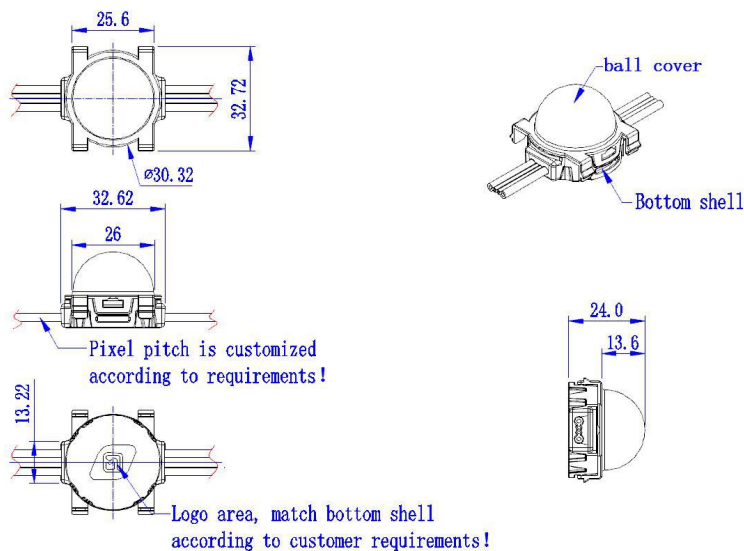
## 2. Base installation ball cover measurement



## 3. Frame installation flat cover measurement



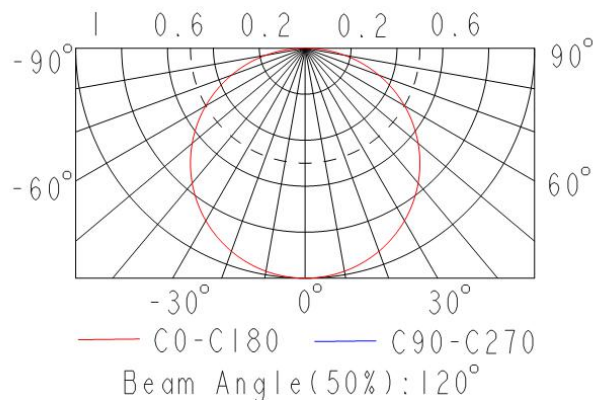
## 4. Frame installation ball cover measurement



## Technical Parameters:

Basic parameters			
Color/gray	RGB/W each 4096 grayscale; RGB/W each 65536 grayscale; RGB/W each 256 grayscale		
Light source	3535 / 5050 / 2835	LED quantities	1pcs /3pcs /4pcs
Material	Flame retardant PC	Cover material	Flame retardant PC
Lifespan	50,000h	Weight	10g
Optical parameters			
Operating Voltage	DC5V / 12V / 15V	Maximum power	0.3W / 0.4W / 0.72W / 0.9W / 1.0W
RGB Light intensity	10cd	White light	20cd
Beam angle	Flat cover120°/ Ball cover 160°	Electric grade	Class III
Other parameters			
Operating temperature	-20°C to 50°C	Storage temperature	-40°C to 70°C
Protection level	IP66		

## Light distribution curve



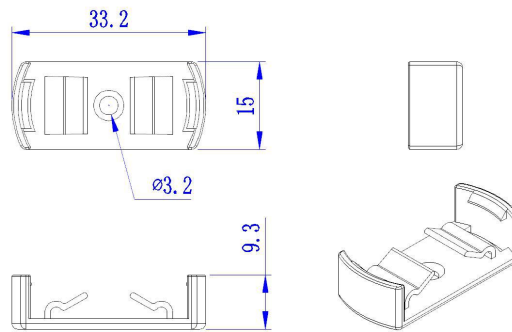
## Product selection table

Model	Light source quantities	Light source	Color	Control	DC Operating Voltage	Power	White light light intensity
SPA030-01AU-01	1PCS	3535	RGB/W	Dual channel Real-time backup TTL	12V	0.3W	2.5cd
SPA030-01AU-02	1PCS	3535	RGB/W	Dual channel Real-time backup TTL	5V	0.3W	2.5cd
SPA030-01AE-01	1PCS	3535	RGB/W	DMX512	12V	0.3W	2.5cd
SPA030-01AE-02	1PCS	3535	RGB/W	DMX512	5V	0.3W	2.5cd
SPA030-01XD	1PCS	5050	RGBW	DMX512	5V	0.4W	4cd
SPA030-01XT	1PCS	5050	RGBW	Single line serial TTL	5V	0.4W	4cd
SPA030-03AU	3PCS	3535	RGB/W	Dual channel Real-time backup TTL	12V	0.72W	7.5cd

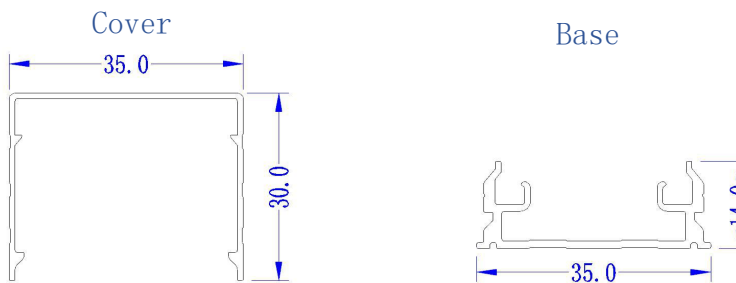
SPA030-03AE	3PCS	3535	RGB/W	DMX512	12V	0.72W	7.5cd
SPA030-03XT	3PCS	5050	RGBW	Single line serial TTL	12V	1.0W	12cd
SPA030-04AU	4PCS	3535	RGB/W	Dual channel Real-time backup TTL	15V	0.9W	10cd
SPA030-04AE	4PCS	3535	RGB/W	DMX512	15V	0.9W	10cd

## Mounting parts dimensions

Support single mounting parts by screw fixing, wire fixing, support frame installation.



PC single mounting base size drawing (unit: mm)  
(two installation methods)



Frame installation measurement drawing (unit:mm)

## Commonly used wire accessories:



Hanging hook



Clip head



Steel wire loop



Hanging head

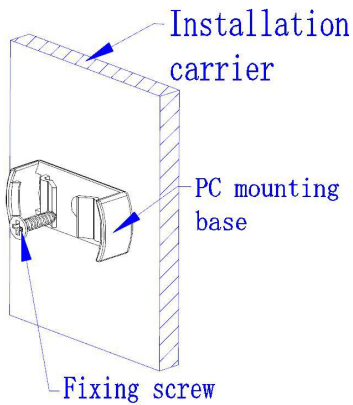


Hanging head 2



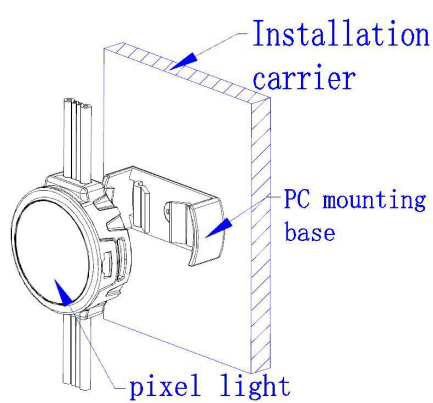
Hanging head 3

## PC single base installation method 1:



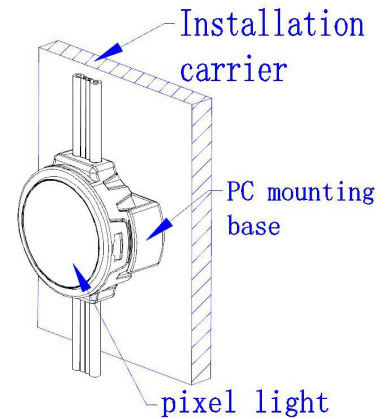
### ① PC installation base installation:

Use a suitable self-tapping screw to secure the PC mounting base to the desired position, with the spacing required by the string spacing of the project order.



### ② pixel light installation:

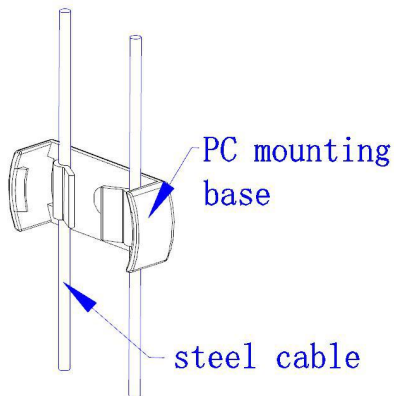
After the PC mounting base is firmly installed, the point light source is stuck into the PC mounting base;



### ③ installation is completed:

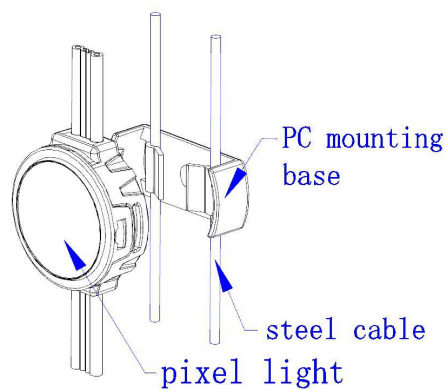
Schematic diagram after installation is complete.

## PC single base + steel cable installation method 2:



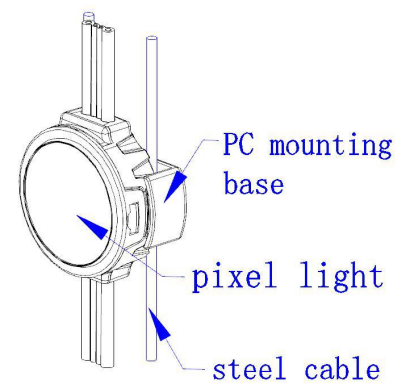
### ① wire fixing and PC base installation:

Fix the two ends of the wire to the mounting base, and then fix the PC mounting base to the wire. The spacing is required according to the order spacing of the project order lights!



### ② Pixel light installation:

After the PC mounting base is fixed, the point light source is stuck into the PC mounting base;

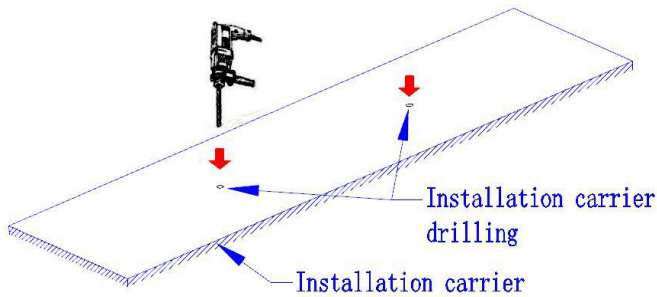


### ③ adjustment pitch :

After the installation is completed, the pixel light pitch can be fine-tuned to ensure that the point source is installed neatly! (schematic diagram after installation)



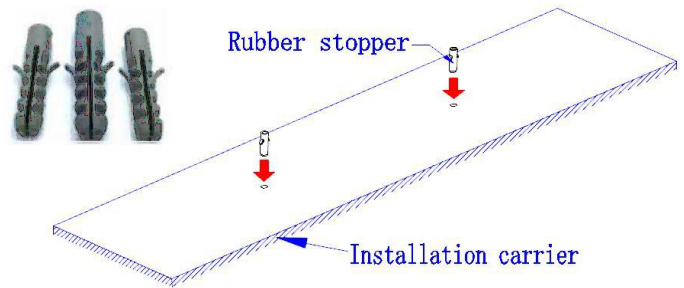
## Frame installation :



### ① installation carrier drilling:

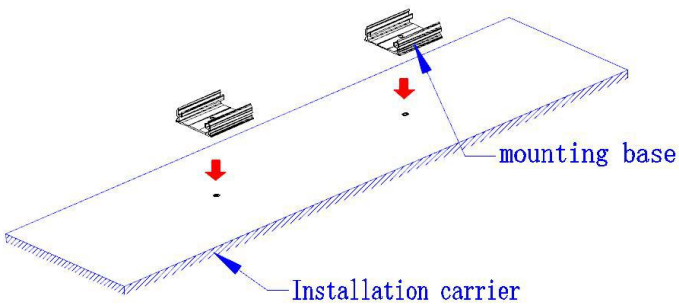
Drill a hole in the position where the carrier is required to be drilled by selecting a suitable drill bit;

### Rubber stopper



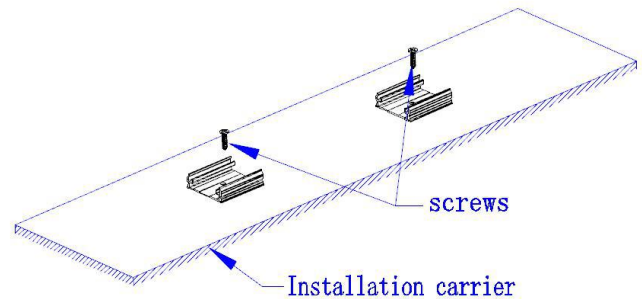
### ② Install the expansion screw:

Use a suitable expansion screw to knock the expansion screw into the hole drilled in the mounting carrier;



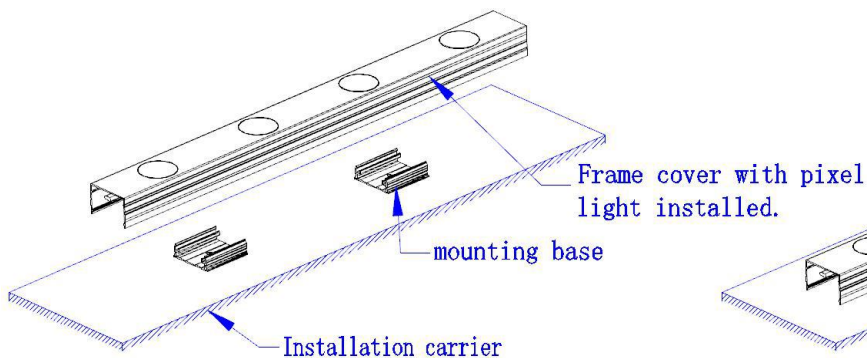
### ③ mounting frame mounting base:

Remove the nut and gasket of the installed expansion screw, and align the hole of the frame base with the expansion screw and attach it to the installation carrier;



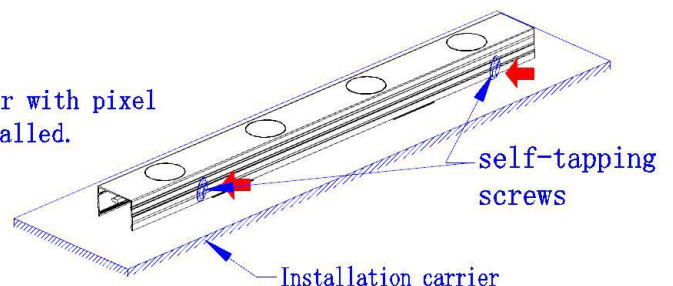
### ④ fixed frame mounting base:

After installing the upper frame base, install and tighten the gasket and nut of the expansion screw, and do not loosen it;



### ⑤ mounting profile cover:

The top cover of the frame with the light source installed is aligned with the mounting base and fastened to the profile mounting base;



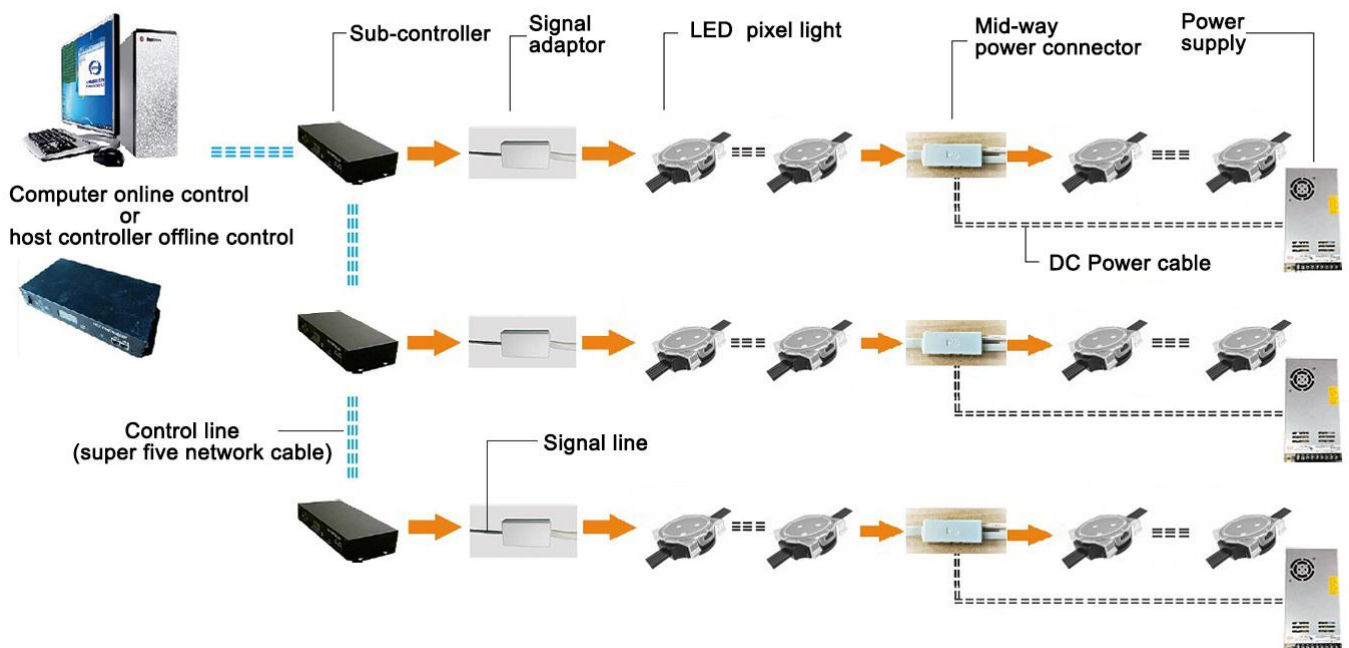
### ⑥ mounting profile reinforcement screws:

After installing the upper cover of the profile, use two self-tapping screws from the lower side to fix the profile upper cover and the profile mounting base to prevent the profile cover from falling.

## System connection

- 1、 The main controller is equipped with sub-controller and signal adaptor. The main control and sub-control working voltage is AC220V. The working voltage of the signal adaptor is the same as the working voltage of the pixel light.
- 2、 Each sub-controller has 8 ports. The TTL sub-controller can carry 512 (RGB) pixels per port. The DMX sub-controller can carry 170 (RGB) pixels per port. It is used with the signal adaptor and supports 200 meters long distance transmission.
- 3、 The main control and sub-control, sub-control and sub-control are connected by CAT5 twisted cables, the maximum distance of each section is less than 120 meters; the maximum transmission distance between the sub-controller and the signal adaptor is less than 120 meters. In this case, the maximum distance from the signal adaptor to the first pixel light is no more than 2 meters.
- 4、 It is recommended that the maximum point spacing should not exceed 2.5 meters, and each intermediate power supply can support the power supply distance of 6 meters left and right (can be adjusted according to the project conditions).

## System schematic



Control system	TTL Dual channel real-time back up	DMX512
Main controller		
Sub controller	MR-218A	MR-218DW
Signal adaptor		
Signal adaptor		
Signal cable	Two-core shielded wire	Two-core shielded wire, Three-core shielded wire



## Notes:

1. Please read the installation manual carefully before using the product.
2. The product is handled gently and gently to avoid damage to the product. Installation, maintenance and maintenance must be handled by professionals;
3. The external power supply must be cut off during wiring to prevent people from getting an electric shock or damaging the lamp;
4. When the external power cord is connected, the corresponding measures of waterproofing and water leakage must be taken;
5. The male and female waterproof protective covers for the products shall not be removed before the products are installed and connected;
6. Quality Assurance: Under normal conditions of use, quality assurance is based on the proper storage, installation, use and maintenance of the product.