Shenzhen Elisa LED Co., Ltd

Shenzhen Xuanan Lighting Co., Ltd

ADD: B807, Shiyan Micro Enterprise Science and Technology Innovation Center, Guanghui Road, Longteng Community, Shiyan Street, Baoan District, Shenzhen, 518108

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PRODUCT SPECIFICATION

35mm/50mm RGB Pixel LED Ball Chain Lights

Model No.: XXA-35B/50B

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1. PRODUCT OVERVIEW

This series of 50mm RGB Pixel LED Ball Lights is designed for outdoor decorative and landscape lighting applications. Each ball features individually addressable pixels with 360° beam angle, IP67 waterproof rating, and DC24V operation. Available in two configurations – SJ-504 (4 LEDs per ball) and SJ-506 (6 LEDs per ball) – offering flexibility for various brightness requirements. Ideal for music festivals, nightclubs, amusement parks, shopping malls, and architectural lighting.

2. MODEL COMPARISON

Part No.	XXA-354/504	XXA-356/506
Bulb Diameter	35mm/50mm	35mm/50mm
Light Source	4× SMD5050RGB LEDs	6× SMD3555 RGB LEDs
Power Consumption	1.2W max per ball	1.44W max per ball
Beam Angle	360°	360°
Protocol	SPI/DMX	SPI/DMX
Control	Individual pixel control	Individual pixel control
Operating Voltage	DC24V	DC24V
Waterproof Rating	IP67	IP67
Standard Quantity	50,000 hourg	20 balls/string
Standard Pitch	20 cm (customizable)	20 cm (customizable)
Housing Options	Milky white / Clear	Milky white / Clear
Lifetime	50,000 hours	50,000 hours
Working Temperature	-20°C ~ +50°C	-20°C ~ +50°C
Storage Temperature	-20°C ~ +70°C	-30°C ~ + 70°c

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3. DIMENSIONS

Parameter	Value
Bulb Diameter	35mm/ 50 mm
Standard Pitch (center-to-center)	20 cm (200 mm)
Custom Pitch	Available upon request

Refer to dimension diagram for complete measurements.

5. ELECTRICAL & CONTROL

Parameter	Specification
Control Protocol	SPI (UCS1903/GS8206) / DMX512
Control Features	One pixel per ball – individually addressable
Connector Type	3pin /4pin waterproof connectors
Optional Connector	5-pin XLR cable
Connector Polarity	Male with pin = INPUT
Controller Compatibility	SD controller, DMX controller, Artnet,etc.
Power Supply	DC24V (required)
Pin Configuration (3-pin UCS1903):	DAT / DC24V+ / GND
Pin Configuration (4-pin GS8206):	DAT 1 / DAT 2 / DC24V+ / GND
Pin Configuration (4-pin DMX512):	DAT+ / DAT- / DC24V+ / GND

6. FEATURES

◆ 6.1 Individual Pixel Control

Each ball contains one pixel with 4 or 6 super-bright SMD3535 RGB LEDs, controlled by UCS1903 or DMX512 IC – allowing independent color and effect control per ball.

◆ 6.2 360° Full Beam Angle

The diffused spherical design provides uniform illumination from all angles, eliminating dark spots.

◆ 6.3 Dual Housing Options

Available in milky white (soft diffused glow) or clear transparent (brighter output) PC shells.

◆ 6.4 IP67 Waterproof

Fully sealed with silicone waterproof protection – suitable for outdoor use in rain,

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snow, and temporary immersion.

◆ 6.5 Flexible Configuration

Standard 20 balls per string with 20cm pitch. Both string length and pitch are customizable.

◆ 6.6 Robust Connector System

Equipped with waterproof male/female connectors (3-pin or 4-pin). Optional 5-pin XLR or M12 connectors available.

◆ 6.7 Wide Application Compatibility

Compatible with SD controllers, DMX controllers, and Artnet systems for seamless integration.

◆ 6.8 High Performance

High brightness, low power consumption, long lifespan (50,000+ hours), low voltage operation, and low lumen depreciation.

7. APPLICATIONS

- Landscape lighting decoration
- Music festivals and concerts
- Night bars, clubs, and KTV
- Shopping malls and retail displays
- Amusement parks and theme parks
- Street decorations and window displays
- Wedding and event decor
- Architectural accent lighting

8. PACKAGING & ACCESSORIES

Accessory	Description
Shell & Nut	PC diffuser with mounting hardware
T-Type Cable	Extension cable (1M / 2M / customized)
PCB Board	Front + back LED layout (2+2 for SJ-504, 3+3 for SJ-506)
Connector Cables	3-pin/4-pin waterproof (black/white), 5-pin XLR optional

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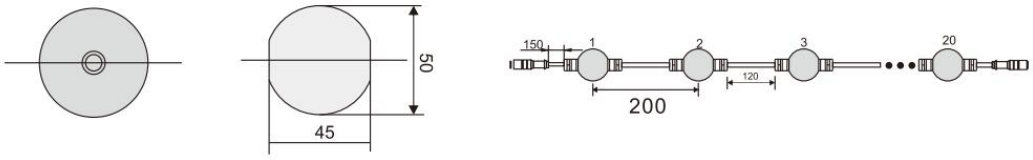
9. DIMENSION DIAGRAM(mm):



10. CUSTOMIZATION OPITONS:

- Pitch spacing (center-to-center distance)
- String length (balls per string)
- Housing color (milky white / clear)
- Connector type (3-pin/4-pin/5-pin XLR)
- Wire color and length
- Extension cable length

11. CERTIFICATIONS & COMPLIANCE

Parameter	Specification
Lifetime	50,000 hours
Waterproof Rating	IP67
Operating Temperature	-20°C ~ +50°C
Storage Temperature	-30°C ~ +70°C
Certifications	Contact manufacturer for CE, RoHS, etc.

12. SYSTEM SCHEMATIC

Controller (SD/DMX/Artnet) → Power Supply (DC24V) → Pixel Ball String (XXA-35B/50B-S)

Maximum run length dependent on power supply capacity – consult technical support