Shenzhen Elisa LED Co., Ltd

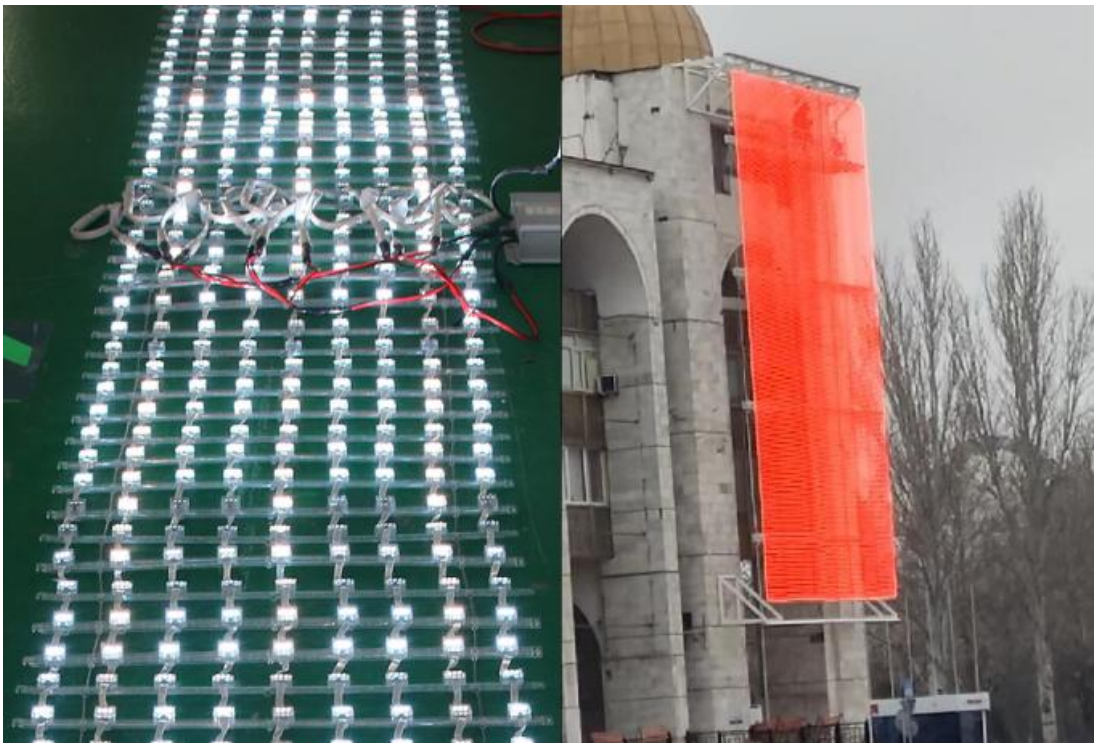
ADD: B807, Shiyan Micro Enterprise Science and Technology Innovation Center, Guanghui Road, Longteng Community, Shiyan Street, Baoan District, Shenzhen, 518108

Email: xuanan@elisaled.com Mob: 86 158 2078 1375

PRODUCT SPECIFICATION

WGP1818 12V LED pixel mesh

Model No.: XXA-WGP1818



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PRODUCT OVERVIEW

This series of 18mm square digital LED pixel strings is designed for outdoor decorative and mesh screen applications. Each square module features 3 super-bright SMD3535 RGB LEDs and is individually addressable via the UCS5603 IC, allowing numerous color-changing effects. The dual-data-line design ensures that a single pixel failure will not affect data transmission. Ideal for creating large-scale LED grid screens, building facades, and architectural lighting. It is IP67 waterproof, operates on low voltage DC12V, and is compatible with SD, DMX, and Artnet controllers.

MODEL COMPARISON

Parameter	Standard Specification
Part No.	XXA-WGP1818
Module Size	18mm x 18mm (L x W)
Light Source	3 PCS SMD3535 RGB LED per module
Beam Angle	140°
IC Chip	UCSS603 (Full color 4096 grey level)
Control	Individual pixel control (1 pixel per module)
Operating Voltage	DC12V
Power Consumption	0.72W max per pc (0.6W/pc at 13mA)
Waterproof Rating	IP67
Standard Quantity	72 pcs / string (customizable)
Standard Pixel Pitch	50mm / 55mm / 62.5mm / 71mm / 83mm / 100mm (customizable)
Cover Type	Clear cover
Working Temperature	-20°C ~ +60°C
Storage Temperature	-30°C ~ +80°C

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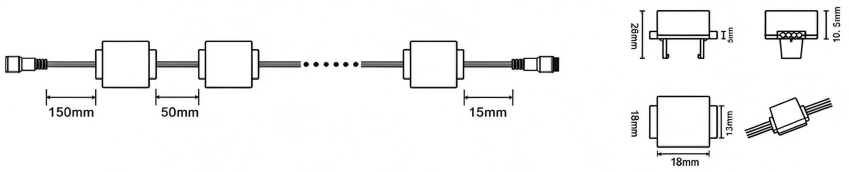
DIMENSIONS

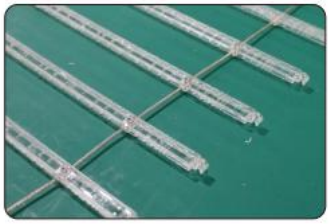
Dimension Details: Unit : mm (millimeter)



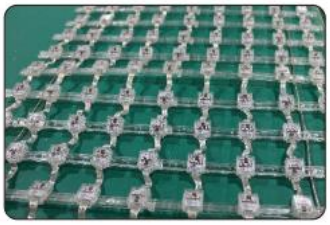
ACCESSORIES

Shell

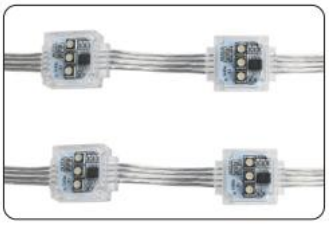
PCB board



Steel wire rope fixing frame



Form a grid screen



Customizable spacing

4pin waterproof connector

FEATURES

1. Individual Pixel Control

Each 20mm square module contains one pixel with 3 super-bright SMD3535 RGB LEDs, controlled by the UCS5603 IC, allowing independent color and effect control per module.

2. Dual Data Line Protection

The UCS5603 LED has two data lines, ensuring that any single pixel failure will not

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affect data transmission (unless two consecutive adjacent pixels are defective).
3. Flexible Pitch & Length
Standard 72 pcs per chain with 5.5 cm space, but pitch and quantity are customizable to meet various grid screen designs.

4. IP67 Waterproof
Fully sealed with waterproof connectors and clear covers – suitable for outdoor mesh screen and architectural applications.

5. Easy to Build Grid Screens
Can be easily combined with steel wire rope fixing frames to form large-scale LED mesh screens.

6. Robust Connector System
Equipped with 4-pin waterproof connectors (Male with Pin is Input). Wire color: silver/black.

7. Low Voltage Safety
DC12V input. Do not use higher than 13V and do not short circuit, otherwise it will burn the pixel.

8. Wide Application Compatibility
Compatible with SD controllers, DMX controllers, and Artnet systems for seamless integration.

APPLICATIONS
Outdoor LED grid screens and mesh displays
Building facades and architectural lighting
Large-scale media facades/ Landscape lighting decoration
Music festivals and concerts/ Shopping malls and retail displays
Amusement parks and theme parks
Street decorations and window displays

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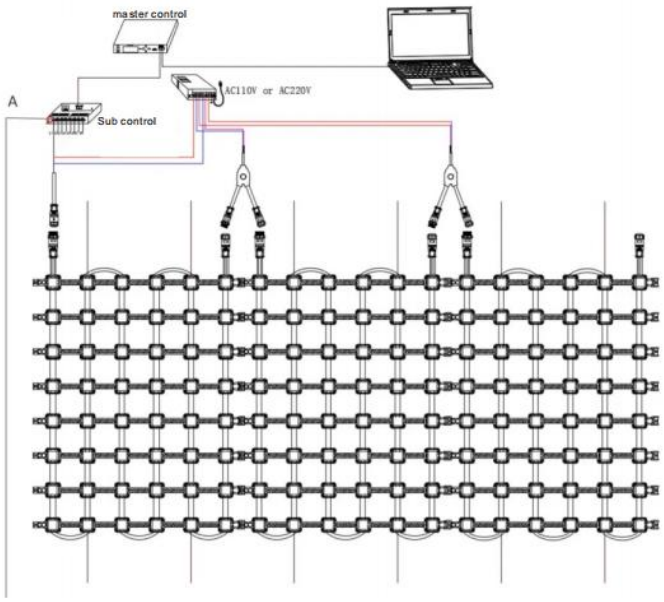
CUSTOMIZATION OPTIONS

Pixel pitch (50mm / 55mm / 62.5mm / 71mm / 83mm / 100mm / Customized)
String length (pcs per string)
Wire color and length (Silver / Black)
Extension cable length

CERTIFICATIONS & COMPLIANCE

Parameter	Specification
Lifetime	≥50,000 hours
Waterproof Rating	IP67
Operating Temperature	-20°C ~ +60°C
Storage Temperature	-30°C ~ +80°C
Certifications	CE, RoHS

SYSTEM SCHEMATIC

Master Control / Laptop → Sub Control (AC110V or AC220V) → Power Supply (DC12V) → LED Pixel String (XXA-WGP1818)

Maximum run length dependent on power supply capacity. Recommend adding power every 40 pixels - consult technical support.