SUPERLIGHTINGLED

GC-6612 M

12 port music controller

GC-6612 M is a standalone SD card 12 port music controller。Comes with 12 output ports, capable of outputting DMX512, TTL, SPI data signals, Supporting lighting fixtures of various signal types within the LED industry。GC-6612 M uses FPGA as the core processor to achieve high load, high frame rate, and high grayscale control with the powerful data computing capability of FPGA。GC-6612 M reads programs from SD card, plug and play, can follow music rhythm, and has multiple music modes to choose from. It is a stable and versatile offline LED controller with strong applicability。

GC-6612 M belongs to a unique innovative specification and is the industry's first single 12 channel music controller launched, It can carry over 12000 pixels per unit, which is very beneficial for construction site wiring。

GC-6612 M has an external console triggering function, which can be connected to DMX512 console and KTV intelligent lighting control box, Very suitable for bar and KTV private room lighting control, accepting console commands to call programs, adjusting speed and brightness。

GC-6612 M is suitable for various LED lighting projects such as landscape lighting, building outlines, advertising letters, etc. Combined with our independently developed multifunctional editing software "FAST LED", it can achieve any color gradient, jumping, chasing, image, video, text and other effects. It has been widely used in LED lighting projects such as office buildings, hotels, store signs, etc.。

Performance characteristics

- FPGA, as the core processor, truly achieves high load, high speed, and high grayscale control
- Offline SD card, standalone controller, plug and play function
- **Support music rhythm and multiple music modes**
- Supports microphone and 3.5 audio port recognition of sound, automatic switching
- OLED full Chinese display screen, displaying parameters and address codes, combined with button settings for address codes and parameters
- Leading specifications in the industry, with 12 port outputs
- Each port has 1024 pixels, and a single unit can have 12288 pixels
- Can support various types of lighting driver ICs: DMX512, UCS series, TM series, LX series, GW series, and other LED industry driver ICs
- The output interface is compatible with both differential signals and TLL signals simultaneously
- Supports RGBW four-color control and various specialized controls, RGBW can choose energy-saving mode and brightening mode
- Supports true high grayscale control, up to 65536 grayscale control, and supports gamma correction
- Support brightness and speed button adjustment
- Supports large capacity SD cards and up to 60 program files
- **Support DMX512 console control, support access to private room intelligent central control, real-time control**

Specification parameters

Power input: AC 90-240V

Power consumption: 3W

Input trigger interface: RJ45 (DMX512)/microphone (music)/3.5 audio jack (music)

Output interface: 12x3pin (Output signal：TTL&DMX512)

Working temperature: -20 ℃~65 ℃

Product size: L250 × W175 × H35 mm

Weight (gross weight): 1 Kg

Front of controller

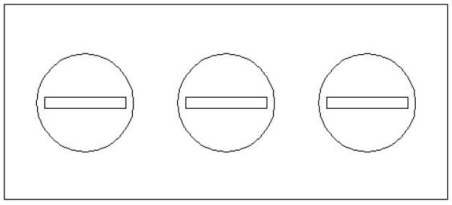
Switch SD card Button OLED screen Music DMX Indicator light

Back of controller

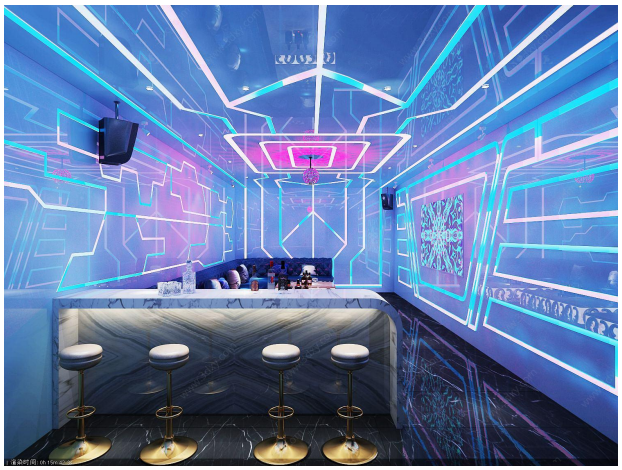
Output ports (12 ports) AC 90-240V

Port Description:

3pin: 1 pin GND, 2 pins DA/DMX, 3 pins DMX-



Application Connection Diagram



Instructions for using the button panel

Main interface

The main interface displays the note symbol, and the program number currently playing is displayed in the upper right corner after successful card reading。

MENU is the function selection key，Long press the MENU key for 3 seconds to enter the function selection ,▼ and ▲ are the addition and subtraction of parameters。Enter the function interface and press MENU again to switch functions。

Function selection

When on the main interface, the LCD screen displays a note symbol, and the button is invalid. Long press the MENU button to enter the function selection。

DMX address

Enter the DMX address setting interface, and press the ▼ and ▲ keys to set the address code. After pressing the number, it will automatically save。

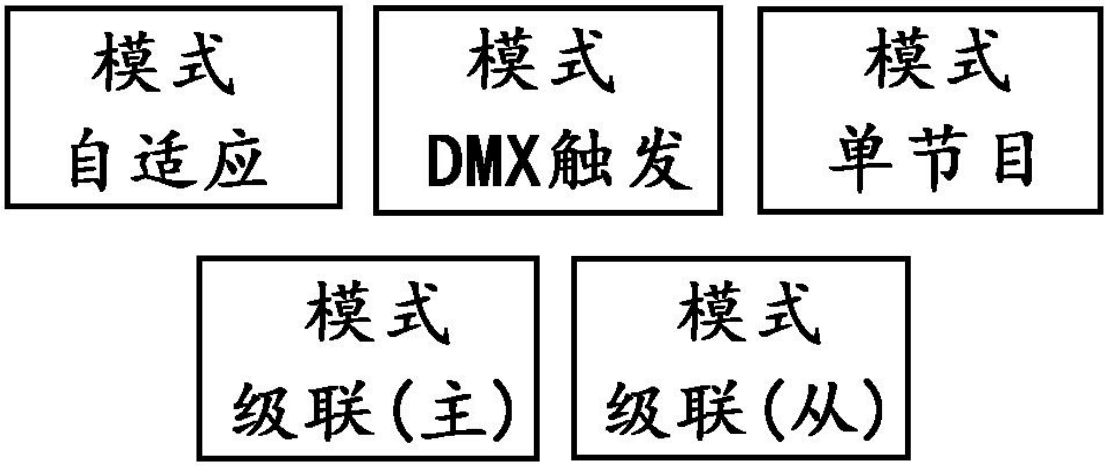
Brightness setting

Enter the brightness interface, and use the ▼ and ▲ buttons to set the brightness value. After pressing the number, it will automatically save。

Speed setting

Enter the speed interface, and use the ▼ and ▲ keys to set the speed value. After pressing the number, it will automatically save。

Mode setting



- **自适应：Controller self-propelled and external DMX console automatic switching。**
- **DMX 触发：The controller is triggered by the DMX512 signal received from the control panel. When there is no DMX512 signal, the controller does not light up。**
- **单节目：Controller single loop, the program in the loop can be selected on the main interface by pressing the ▼ and ▲ buttons。**
- **级联(主)：Multiple cascaded synchronizations, as the first host (requiring Ethernet cables to connect multiple controllers in series)。**
- **级联(从)：Multiple cascaded synchronizations, serving as slaves (requiring Ethernet cables to connect multiple controllers in series)。**

Cascade master-slave mode: The first one is set as the master, and the rest are set as slaves. Multiple controllers connected in series with DMX port Ethernet cables。

Chip Settings

Enter the chip interface, and press the ▼ and ▲ keys to select the driver chip that outputs the signal. This parameter is specified by the SD card by default。

Music Mode

Enter music mode, the ▼ and ▲ keys can select the music voice control mode。

Music function turned off。

Music control: Switch to the next SD card to play files。

Music control: Change playback brightness。

Music control: Change the playback speed。

Music control: Change the direction of playback。

Music control: Change the color of the playback effect。

Music control: Increase the background color of the effect。

Music control: Alternate opening of controller ports。

Automatically switch music modes。

DMX512 External Trigger Instructions

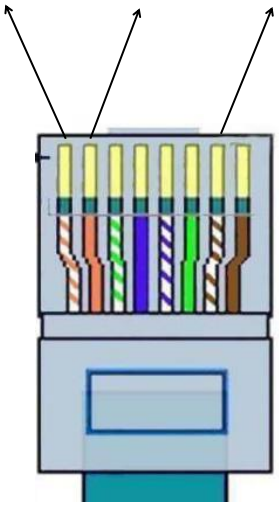
DMX512 (DMX IN)

Standard DMX512 signal, can be connected to the standard DMX512 console。

Controller parameters need to be set (address code matches console)。

DMX512 interface line sequence: （Network cable 568B）

1-pin D+, 2-pin D -, 7-pin GND



DMX512 trigger channel description (using a total of 14 channels)

Trigger address	Value range	Function Description
Channel 1	0~255	Total brightness
Channel 2	0~255	Red LED adjustment
Channel 3	0~255	Green LED adjustment
Channel 4	0~255	Blue LED adjustment
Channel 5	0~255	White LED adjustment（Only valid for RGBW lamps）
Channel 6	0~255	Scene selection，4 values correspond to a scene。 0-3 Corresponding scene 1 4-7 Corresponding scene 2 8-11 Corresponding scene 3 12-15 Corresponding scene 4 And so on..... Total support 64 scenes
Channel 7	0~255	Play speed，0 is the slowest，1 to 255 continuously adjustable
Channel 8	0~255	Strobe，0 invalid，1 to 255 flashing frequency continuously adjustable
Channel 9	0~255	Mix color control： 0-31：Not enabled (Insert background is not enabled) 32-63：Enable , Replace black pixels with background 64-95：Enable,Black pixels are kept, others are replaced with background 69-127: Background and original content or logical operation 128-255: Reserve(Not enabled)
Channel 10	0~255	Mix red
Channel 11	0~255	Mix green
Channel 12	0~255	Mix blue
Channel 13	0~255	Grouping function 0: Not enabled 1-15: open Single port，The value corresponds to the port number. 16-31: open odd-numbered ports（1、3、5、7、9、11） 32-47: open Even-numbered ports（2、4、6、8、10、12） 48-63：1 to 12 ports, open one by one. 64-79：12 to 1 ports, open one by one. 80-95: From 1 to 12 Zipper opening. 96-111: From 12 to 1 Zipper opening. 112-127: Open from the middle to both sides. 128-143: Open from both sides to the middle. 144-159: Close from both sides to the middle. 160-175: Close from the middle to both sides. 176-255: Reserve(Not enabled)
Channel 14	0~255	0~127: Positive effect running 128~255: Reverse running effect

Copy card instructions

After the program files are completed, simply copy them all to the SD card. The program file suffix is rgb。

The file names generated by the software are in a fixed format, SC-01-01、SC-02-01、SC-03-01, The program numbers are 01, 02, and 03 in the middle, and the middle program number can be modified in order. The SC at the beginning and 01 at the end cannot be modified。

Before copying the card, the SD card must be formatted first。

Sc-01-01.rgb	2024-07-21 15:43	SGI Image	13,962 KB
Sc-02-01.RGB	2024-07-21 15:34	SGI Image	469 KB
Sc-03-01.RGB	2024-07-21 15:34	SGI Image	703 KB
Sc-04-01.RGB	2024-07-21 15:34	SGI Image	703 KB
Sc-05-01.RGB	2024-07-21 15:34	SGI Image	703 KB
Sc-06-01.RGB	2024-07-21 15:34	SGI Image	703 KB
Sc-07-01.RGB	2024-07-21 15:34	SGI Image	703 KB
Sc-08-01.RGB	2024-07-21 15:35	SGI Image	820 KB
Sc-09-01.RGB	2024-07-21 15:35	SGI Image	820 KB
Sc-10-01.RGB	2024-07-21 15:35	SGI Image	703 KB