SUPERLIGHTINGLED

Online and offline
Multiple ART-NET cascaded
Multifunctional integrated machine

508S (2024)

MADRIX

The 508S is a stand-alone SD card 8-port online+offline controller.It can be connected to the computer for real-time preview and debugging, and can be connected to MADRIX ARTNET, and can be inserted for offline playback.With 8 sets of output ports, it can output DMX512, TTL, SPI data signals, and support lamps of various signal types in the industry.The 508S uses FPGA as the core processor, and realizes high load, high frame rate and high gray level control with FPGA's super data processing ability.The 508S reads the program in the SD card, which is plug and play. It is an offline LED controller with stable performance and strong applicability.

The 508S has an external console trigger function, which can be connected to the console and KTV intelligent light control box,It is very suitable for lighting control of bars and KTV rooms, receiving instructions from the console to call programs, and adjusting speed and brightness.

508S is applicable to various LED lighting projects such as landscape lighting, building outline, advertising words, entertainment places, etc.In combination with the multi-functional editing software ShadowDraw independently developed by our company,It can achieve any color gradient, jump, light tracing, pictures, videos, text and other effects,At present, it has been widely used in LED lighting projects such as office buildings, hotels, shop signs, etc.

Performance characteristics

- As the core processor, FPGA really realizes high load, high speed and high gray control
- With digital display screen, display parameters and address codes, and set address codes and parameters in combination with keys
- Single SD card can be offline
- Multiple sets can be synchronized offline in series
- Real-time control of multiple cascaded MADRIX
- 8-port output, 1024 pixels per port, 8192 pixels per unit
- It can support all kinds of light-driven ICs: DMX512, UCS series, TM series, and other LED industry-driven ICs
- Output interface can be compatible with differential signal and TLL signal at the same time
- Support RGBW four-color control and a variety of special controls. RGBW can select energy-saving mode and brightening mode
- Support brightness and speed key adjustment
- Support large-capacity SD card, and support up to 64 program files
- Support external console control, support access to the intelligent central control of the private room, real-time control, support console push rod overlay background color

- It supports online debugging of ARTNET Sir Michael. What you see is what you get. You can record ARTNET to generate offline card copying files.

Specifications

- Power input: AC 90-240V
- Power consumption: 3W
- Input trigger interface: RJ45 (DMX512)
- Input network port: RJ45 (ART-NET) (MADRIX)
- Output interface: 8x3pin (DMX512&TTL compatible)
- Output signal: DMX512/TTL
- Working temperature: - 20 ℃~65 ℃
- Product size: L245 × W140 × H35 mm
- Weight (gross weight): 1 Kg

Front of controller

DMX512 / SD card /indicator/ online port/ DMX512

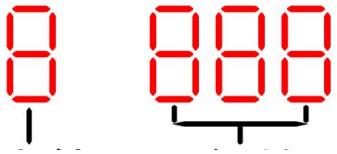
Back of controller

Output ports (8 ports)

AC 90-240V

Controller display interface

Four-digit digital display, the first digit is function, and the last three digits are parameters



Turn on and display the current program number

-01- Representative program 1

-02- Representative program 2

Long press the blue key to enter the setting, press the plus/minus parameter, and then press the blue key to switch functions.

Working mode 0--1

0-1 : Adaptive mode: cycle self-running, 512 trigger, online automatic switch

0-2 : DMX512 triggers the dedicated mode

0-3 : Cascade host: multiple cascaded synchronous hosts

0-4 : Cascade slave: multiple cascaded synchronous slave

0-5 : Single-track cycle (press the key on the main interface to select the program played by a single track)

Brightness setting 1-15 **: 0-15 16 gears in total**

Speed setting 2-30 : 6-99 frame rate continuously adjustable

DMX address d001 : DMX512 address code 1-511 continuously adjustable

IP address P010 : The default is P010, which means the IP address is 192.168.1.10

The IP address is used to connect to MADRIX, and the network segment is 192.168.1.XXX

The IP address of the controller and the domain of each port can be set by connecting the computer with one key

DMX512 trigger channel table

Channel 1 (0-255): total dimming

Channel 2 (0-255): red dimming

Channel 3 (0-255): green dimming

Channel 4 (0-255): blue dimming

Channel 5 (0-255): white dimming, only valid for RGBW four-color lamps

Channel 6 (0-255): program: 0-3 program 1, 4-7 program 2, 8-11 program 3 and so on

Channel 7 (0-255): speed 0-255 is adjustable, and the maximum speed is adaptive according to the number of points

Channel 8 (0-255): with the function of explosion and flash, the frequency of explosion and flash can be continuously adjusted from low to high

Channel 9 (0-255): Overlay background color function, which is enabled when the value is greater than 32

Channel 10 (0-255): red background, value 0-255 adjustable

Channel 11 (0-255): green background, value 0-255 adjustable

Channel 12 (0-255): blue background, value 0-255 adjustable

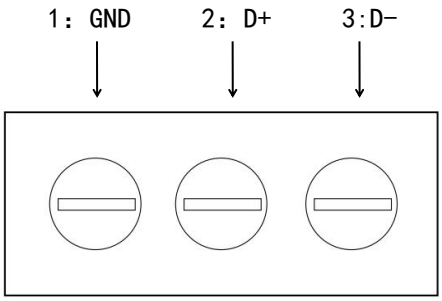
matters needing attention

1. The SD card must be formatted before each copy

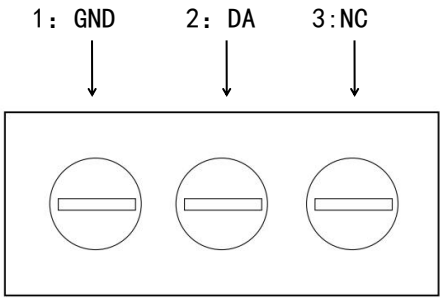
2. The controller is connected to the computer, and the computer needs to set an IP address, such as 192.168.1.200 (automatic access to IP is not allowed)

Wiring instructions of controller output port

Output port pin description (DMX512)

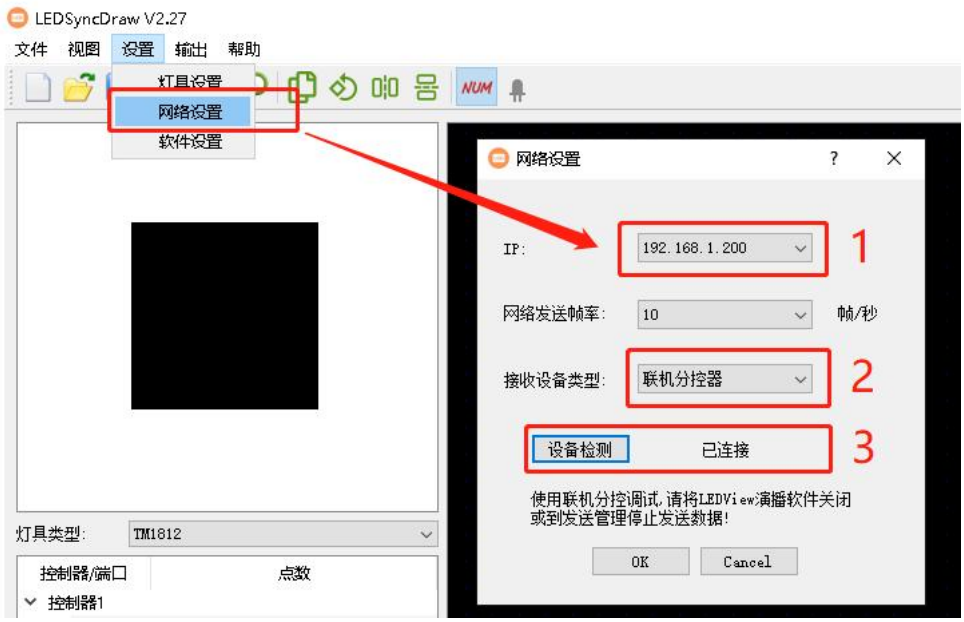


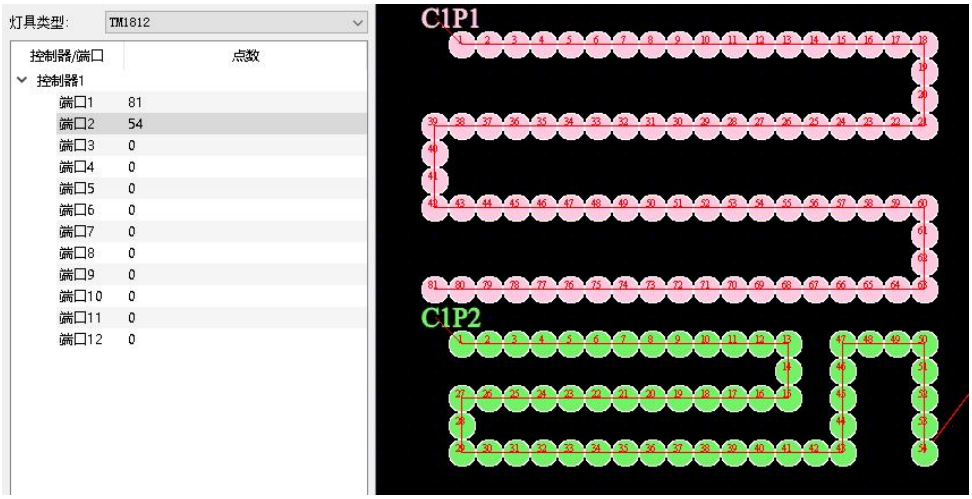
Output port pin description (SPI-TTL)



Controller online tracing

1, With the SD card inserted, the built-in program runs first
2, Controller mode, with adaptive 0--9
3, Connect the computer network cable to the controller NET IN network port
4, The computer has a local fixed IP address, such as 192.168.1.200
5, Open the drawing software and enter network settings
Select local IP, select online sub-controller,
and test equipment (connected)
6, Start online tracing





In the process of online point tracing, the light belt will light up in real time with the point tracing, and will flash a point in advance.

Controller connection MADRIX

1、The SD card is plugged in, and the built-in program runs first

2、Controller mode, with adaptive 0--1

3、The default IP address is 192.168.1.10 P010

The default output universe is 0-48

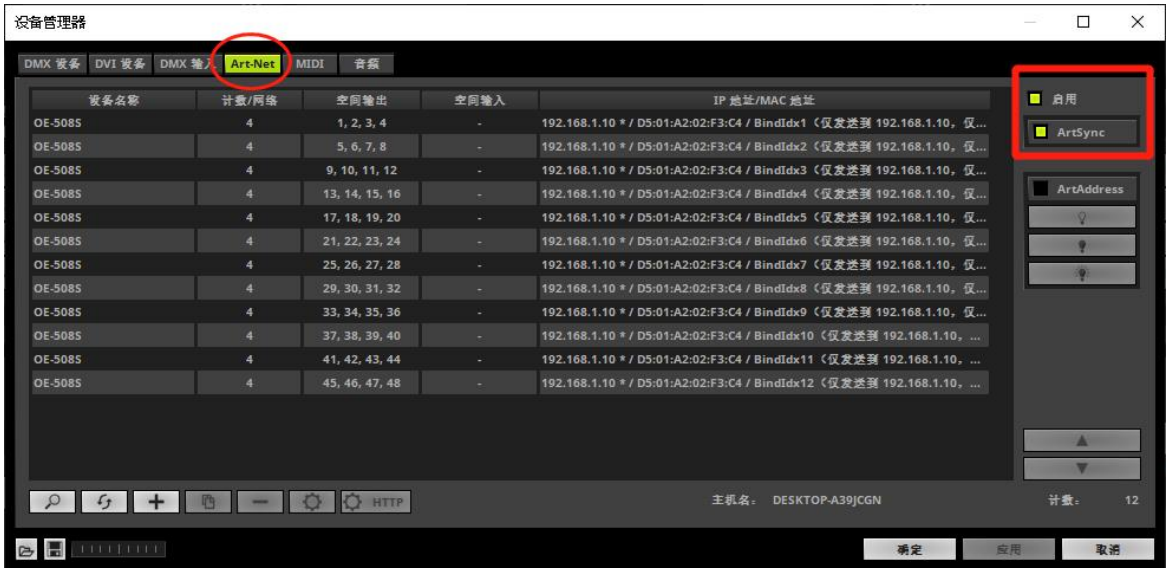
Press and hold REST for 5 seconds and then restart to reset the factory default parameters

4、Connect the computer network cable to the controller NET IN network port

5、The computer has a local fixed IP address, such as 192.168.1.200

6、Open MADRIX 5, search the device, and find 48 universes

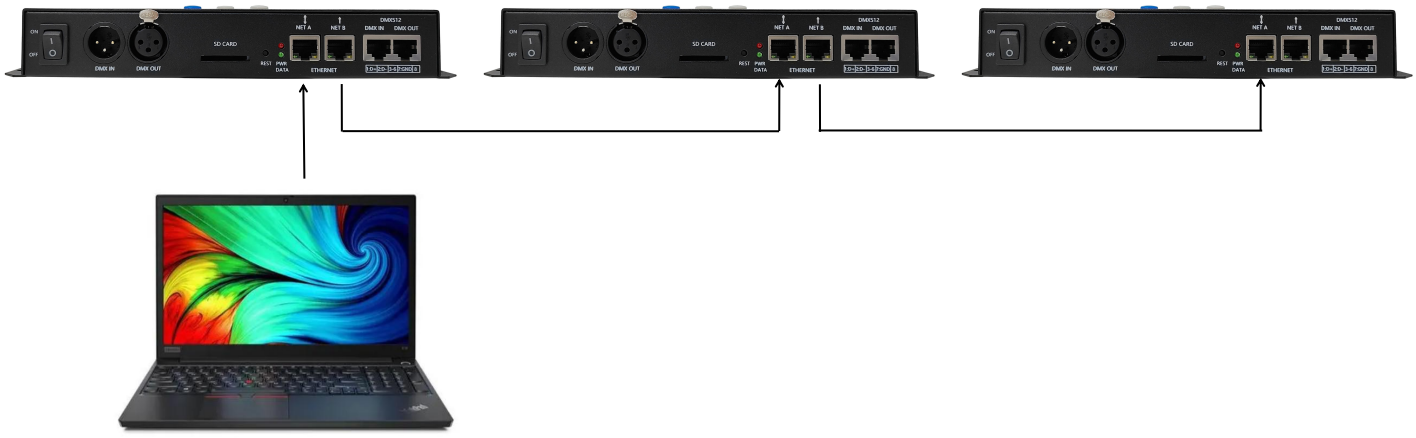
7、Enable -- map -- start online control



Next, import the map and start online real-time control

Controller connection MADRIX (multiple sets in series)

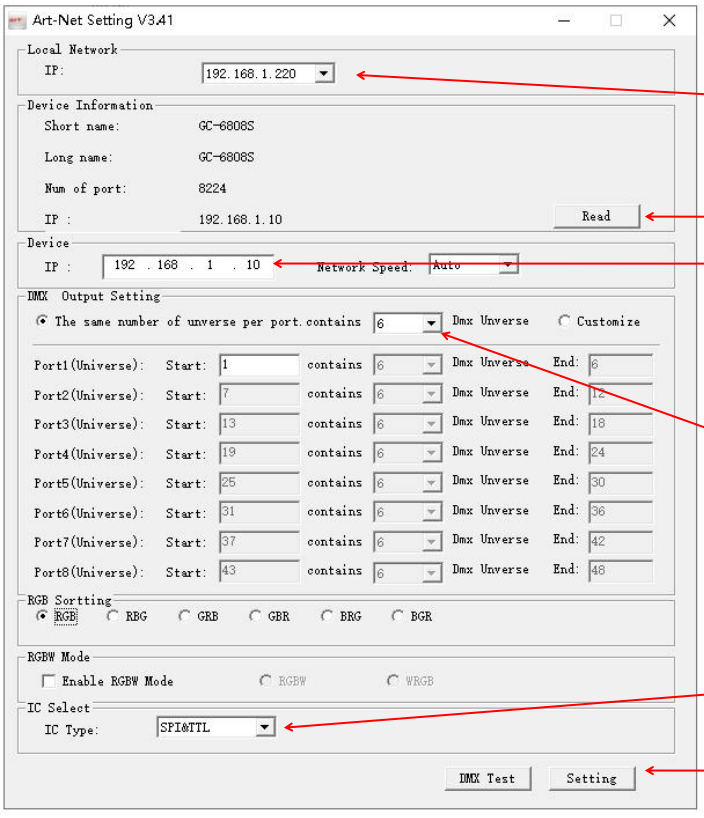
The network cable adopts the standard 568B wire sequence, and it is suggested that the serial connection from port A to port B



Multiple controllers are connected in series. You need to set the IP address and output domain of the controller first.

Open the ARTNET configuration tool (first install GC-CAP, then open it)

The computer has a local fixed IP address, such as 192.168.1.220



Select computer network card IP

Read parameters and connect successfully

Enter the IP address to be set

The IP addresses of multiple tandem meetings are automatically sorted

Each port outputs 6 universes

Select IC type, SPI&TTL

Click Setting to set parameters

After multiple controllers are connected in series, the IP addresses and output domains will be automatically sorted.

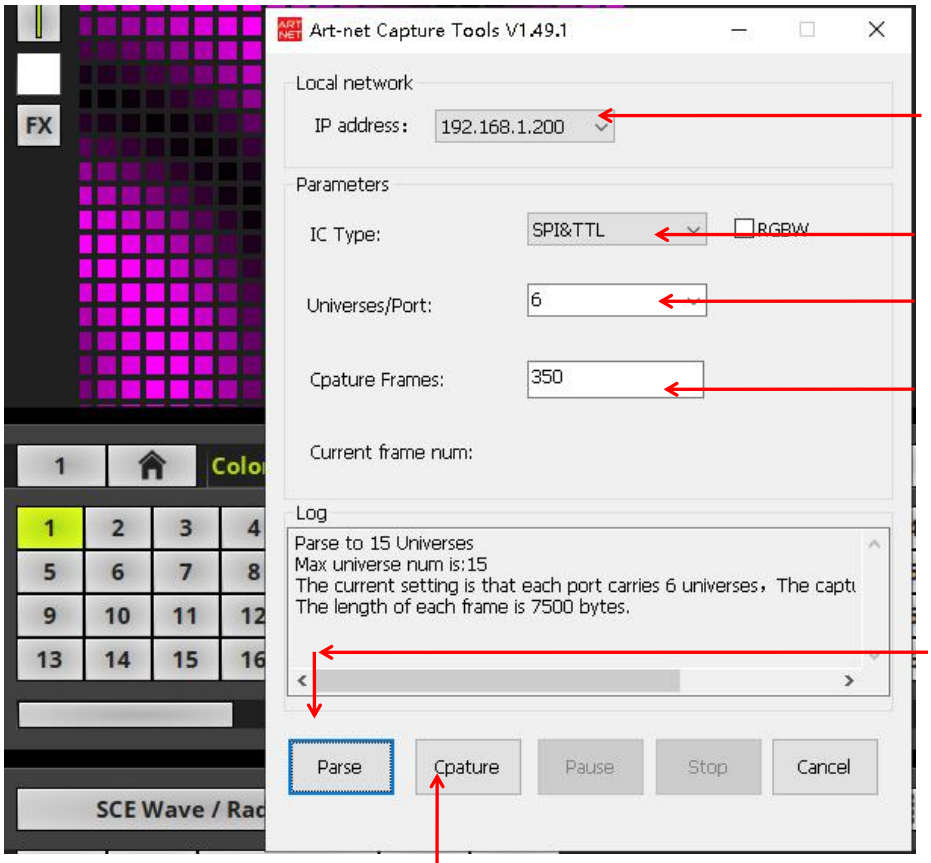
After setting, open MADRIX

Search device -- enable -- import the map, and you can start the overall real-time control of MADRIX.

How to use ARTNET recording tool

After the controller is connected to MADRIX for real-time control, it can be directly recorded as offline card copying file

- You need to connect the controller to record
- MADRIX is under normal control in real time. Only the recorded files can be used



Select computer IP address

Select IC type SPI&TTL

Each port outputs 6 universes

Input the number of acquisition frames and automatically stop after recording

Resolve first. You can record only after the resolution is normal

Click Start and the recording will stop automatically

Record the first one and continue the same operation to record the next one

- After the recorded file is copied to the SD card, it can work offline (format before copying the card)
- The file name is sorted as SC-01-01 and the suffix is rgb
- The file name cannot be modified at will. It must be sorted according to the system default format

Sc-15-01.rgb	2023-10-09 17:39	SGI Image
Sc-14-01.rgb	2023-10-09 17:39	SGI Image
Sc-13-01.rgb	2023-10-09 17:39	SGI Image
Sc-12-01.rgb	2023-10-09 17:39	SGI Image
Sc-11-01.rgb	2023-10-09 17:39	SGI Image
Sc-10-01.rgb	2023-10-09 17:39	SGI Image
Sc-09-01.rgb	2023-10-09 17:39	SGI Image
Sc-08-01.rgb	2023-10-09 17:39	SGI Image
Sc-07-01.rgb	2023-10-09 17:38	SGI Image
Sc-06-01.rgb	2023-10-09 17:38	SGI Image
Sc-05-01.rgb	2023-10-09 17:38	SGI Image
Sc-04-01.rgb	2023-10-09 17:38	SGI Image
Sc-03-01.rgb	2023-10-09 17:38	SGI Image
Sc-02-01.rgb	2023-10-09 17:38	SGI Image
Sc-01-01.rgb	2023-10-09 17:38	SGI Image