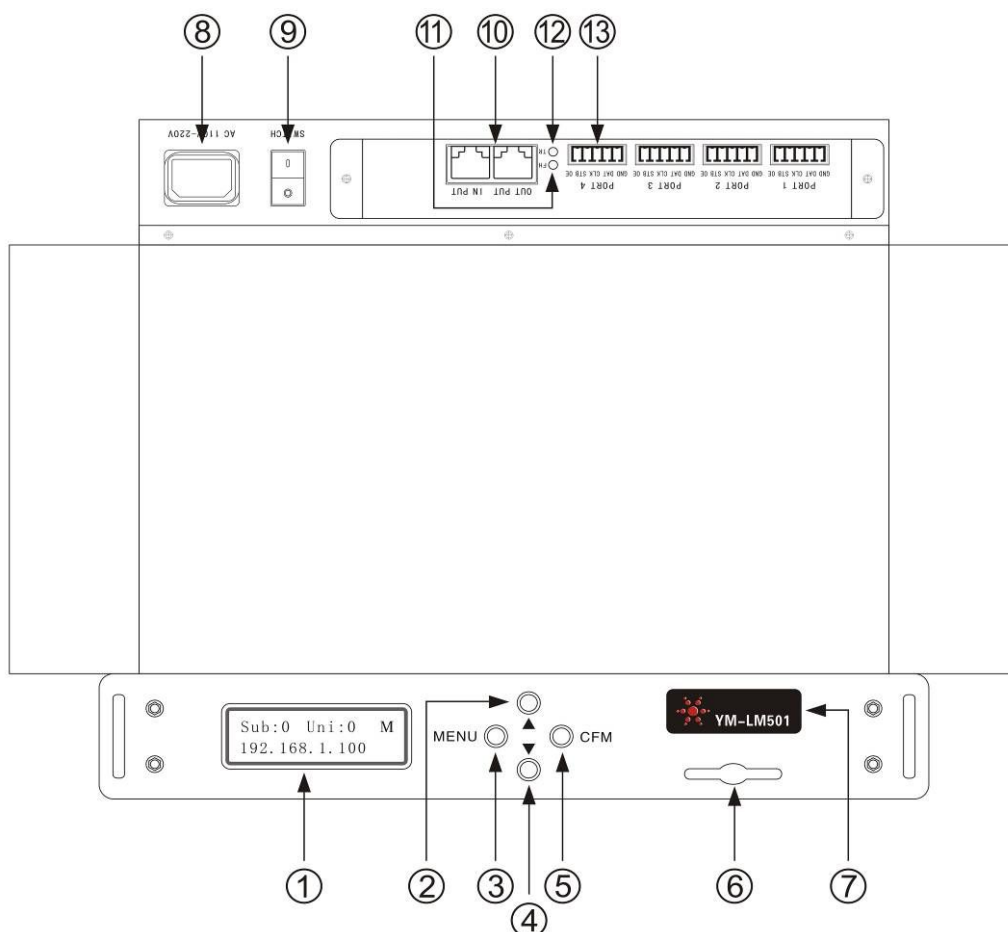# I. Product Overview

With the rapid development of LED industry, LED lighting project is also growing. To meet this customer demand, we bring a unique performance, stable and reliable control of a large area suitable for LED lighting control system. LED controller using the latest international technology, control technology, its superior data load capacity, long-distance transmission capacity and routing flexibility, and is compatible with various LED driver chips and a variety of customized chips and other advantages make just one available get wide attention and recognition of each person's LED product applications.

2、Controller launched diagram:

1.1 、LM501 Key Description：

① ：LCD Display

②：▲Increase the key: In the modified state (bottom left of the screen displays "+-" sign) up cycle adjustment data value, otherwise the cycle selection menu with other levels;

③：MENU - Function keys: to enter or exit the menu settings;

④：▼- Reduce the key: In the modified state (bottom left of the screen displays "+ -" sign) down MENU cycle adjustment data value, otherwise choose another menu with circulating levels;

⑤：CFM - OK button: Select the menu item or data value is determined;

⑥：SD card reader;

⑦：Flag models;

⑧：Power supply AC100-220V;

⑨：Power switch;

⑩：Cable input / output ports;

⑪：FH red light;: TR green indicator light;

⑫：A signal output port.

1.2 、Switching languages

Chinese: In the main interface, press ▼ button for three seconds or more;

English: In the main interface, press ▲ button for three seconds or more. ,

1.3 、LCD screen displays:

After power-up, the controller enters normal working condition. LCD displays the main screen. Screen displays the IP address, host (M), MADRIX use to set Subnet and Universe

parameters.

1.4、File settings: Set the control file contains the following:

① play the file: contains a single play and loop.

Figure:

◆ Press the MENU button to enter Playback File menu, this menu can play the selected file or loop SD card all the files;

◆ Press the CFM key to enter the edit mode, the bottom left of the screen displays "+ -" sign;

◆ Press ▲ / ▼ keys to select a file to play;

◆ Press the CFM key to confirm exit edit mode;

◆ Press the MENU key to return to the main interface.

Note: This menu is valid only for line control.

① playback speed：1-50。

◆ Press the MENU key, press the ▲ button to enter the playback speed settings menu;

◆ Press the CFM key to enter the edit mode;

◆ Press ▲ / ▼ key tuned to set the playback speed;

◆ Press the CFM key to confirm;

◆ Press the MENU key to return to the main interface

② Note: This menu is only effective line control, line control to change the playback speed on a computer screen.亮度：0-99

◆ Press the MENU key, then press the ▲ key twice to enter the brightness setting menu;

- Press the CFM key to enter the edit mode;
- Press ▲ / ▼ button to set the brightness adjusted;
- Press the CFM key to confirm;
- Press the MENU key to return to the main interface

③ Note: This menu is only effective line control, line control to change the brightness on your computer screen

④ clock frequency：0.2-50.0 MHz。

- Press the MENU key, then press the ▲ key three times to enter the clock setting menu, this menu you can adjust the output port of the clock frequency;
- Press the CFM key to enter the edit mode;
- Press ▲ / ▼ button to set the clock frequency is adjusted;
- Press the CFM key to confirm;
  Press the MENU key to return to the main interface.

Note: This menu is only effective line control, line control to change the clock on your computer screen。

⑤ IP Address: IP address consists of four decimal digits (IP1.IP2.IP3.IP4), such as 192.168.1.1. IP addresses is an important parameter controller after power is displayed on the main screen. Host software to communicate with the controller, first set the IP address of a good controller, see the specific "on-line control to use."

- Press the MENU key, then press the ▲ key four times to enter the IP address settings menu, the screen displays the current IP address;
- Press the CFM key to enter the IP address of an edit mode;

- ◆ Press ▲ / ▼ to adjust the IP address of one;按 CFM
- ◆ Press the CFM key to determine the IP address of one, enter the IP address of two edit mode;
- ◆ Press ▲ / ▼ to adjust the IP address of the two;
- ◆ Press the CFM key to determine the IP address of 2, enter the IP address of three edit mode;
- ◆ Press ▲ / ▼ to adjust the IP address of 3;
- ◆ Press the CFM key to determine the IP address of 3, enter the IP address of the four edit mode;
- ◆ Press ▲ / ▼ to adjust the IP address of 4;
- ◆ Press the CFM key to determine the IP address 4, the screen displays the IP address settings of four;
- ◆ Press the MENU key to return to the main interface.

offline synchronization settings: LM501 can play offline synchronization programs, which need to be set to one of a "master", and the rest is set to "slave" by connecting switches.

After setting all the controller's network port is connected to the port on the switch.

Master boot logo from the machine are displayed in the upper right corner of the LCD display, "M", said the master, "S" indicates a slave.

⑥ ART-NET parameters :0-15.

⑦ Universe Parameter：0-15。

Note: After each set parameters according MENU function key to return to the main interface.

3、Product Specifications：

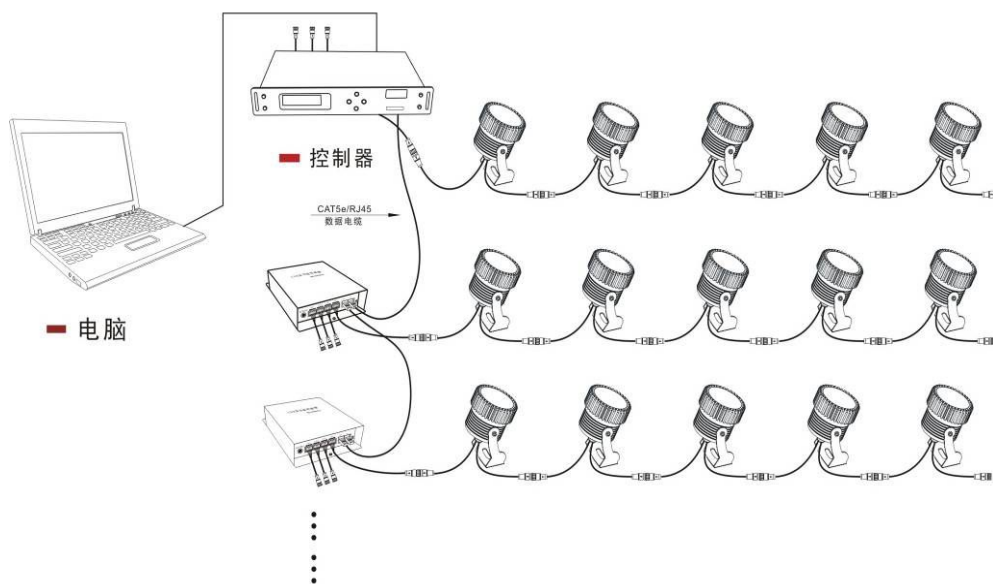| Size	260*154*45mm	The output data signal	TTL
Weight	1085g	Storage Interface	SD card
Color	Gray	Gray levels	65536
Power Supply	AC220V 50Hz	Operating Temperature	-30~70℃
Power Consumption	Maximum 10W	Ambient temperature	-30~70℃
Output control port	4 port	Supporting software	LED control software
Maximum control pixels	4*512 Pixel	ControllableIC	
Single line：TM1804、TM1829、UCS1903、TLS3001、TLS3008、、、 **Two lines：DMX512、P9813、LPD6803、LPD8806、SM16716、WS2801、** **MBI6021、MBI6024、MY9221、、、**			

4、Product Features：

- ◆ Control: Control online / offline control;
- ◆ IP address settings: with LCD display, no DIP switch design, all IP and MAC is set to be completed by the key;
- ◆ controller with SD card memory, used to store data for offline playback;
- ◆ using Fast Ethernet, TCP / IP communication protocol, host connectivity LED controller via standard network cable;
- ◆ Each controller has four output ports, a single port output control 512 pixels;
- ◆ a master controller, on-line can be cascaded to 16 YM-SVE4X512 sub-control, 31 units can be cascaded off

YM-SVE4X512 of control;

- playback speed: maximum speed of 25 frames / sec;

- grayscale settings: Customers can never light gray under the circumstances to 65,536 (64K) adjust the gray, LED lights let you achieve the best display effect;

- Brightness adjustment: 100 automatic brightness adjustment function allows you to adjust the display brightness is more effective;

- Power Supply: AC100-230V;

- EMC EMC design, with good anti-jamming capability;

- supporting software: LED Studio software and LED control software;
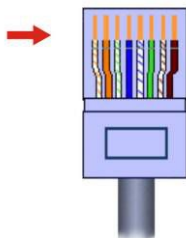
5、Wiring schematic：

5.1、Cable pressure method: (Figure)

As shown in accordance with the standards of a EIA/FIT568B, by color along

Sequence alignment: white orange, orange, white and green, blue, white, blue, green, white

Brown, brown. Making joints at both ends using the same connection.

5.2、Sub-control output port connection: (Figure)

SPI connection

Line – ground (GND)

Second line – data (DAT)

Three lines – the clock (CLK)

Four lines – Latch (STB)

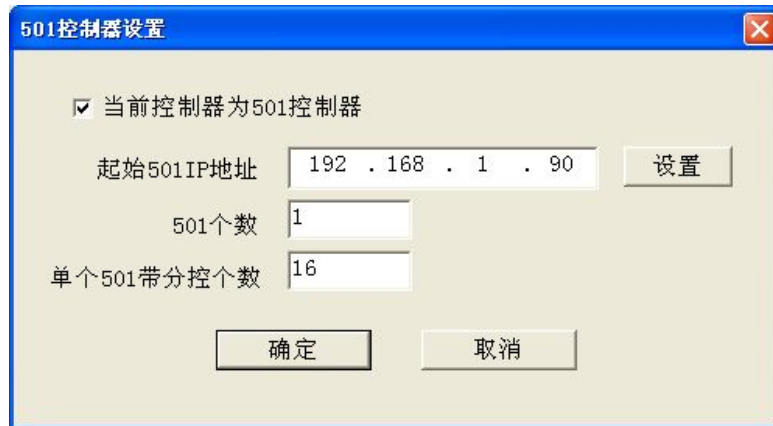Five lines – there is enable (OE)

6、LED Studio software：

6.1Use the online Control

1) host software to communicate with the controller, the controller must first set the IP address, run "LED studio software" (version To), select "Settings" V2.850 on

Figure

1) Click the "501 Controller Settings" pop-up the following interface：

- ◆ Check the "current controller 501 Controller";

- ◆ Enter the IP address to connect to the controller, click on the "Settings";

- ◆ 501 the number of input "1"

- ◆ 501 single master can control the number of cascade, cascade connection of up to 16 sub-control 4-port or 8 units of output control 8-port output. Offline cascade up to 31 units of controlled sub-control output or 4-port 15 eight-port output.

- ◆ Click the "OK" button.

If you have completed the IP address setting, set to enter the LED engineering modeling layout file; window to return to the pattern file to play tricks.

6.2、Offline control (SD card) to use:

- ◆ Use offline control first stop "LED studio software", or the network cable connected to the computer removed.

- ◆ SD card format, each placed in front of the new program will need to format the SD card SD card;

- ◆ Use "LED lighting control software" to design the pattern file, note that there are 512 types of control and 1024 these two types of choice;

- ◆ designed to copy files to the SD card; SD card can be placed inside a file named cfg extension and dat is, dat file can be placed up to 15.

◆ the SD card into the SD card slot on the controller;

◆ controller after power-on SD card can play tricks files;

◆ You can choose to play in the "File" menu, a file, or loop all files; playback speed can also be adjusted in the "Play Speed" menu.

七、Use the online Control—MADRIX：

① MADRIX software to communicate with the controller, first set the IP address of each controller, Sub-net and the Universe. Eg: 192.168.1.91;

② run MADRIX software, press F4, a pop-up window. 1) Select the Art-Net labeling; 2) Check the Art-Net option is selected and the card attached to the controller; 3) Sync in the Pre Sync and Post Sync must choose one; 4) Click Find Auto to find the Art-Net devices . Find window after the completion of the following diagram:
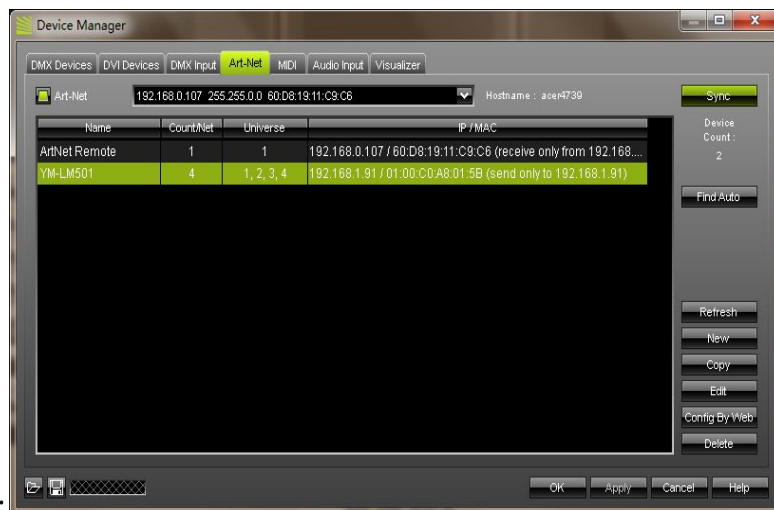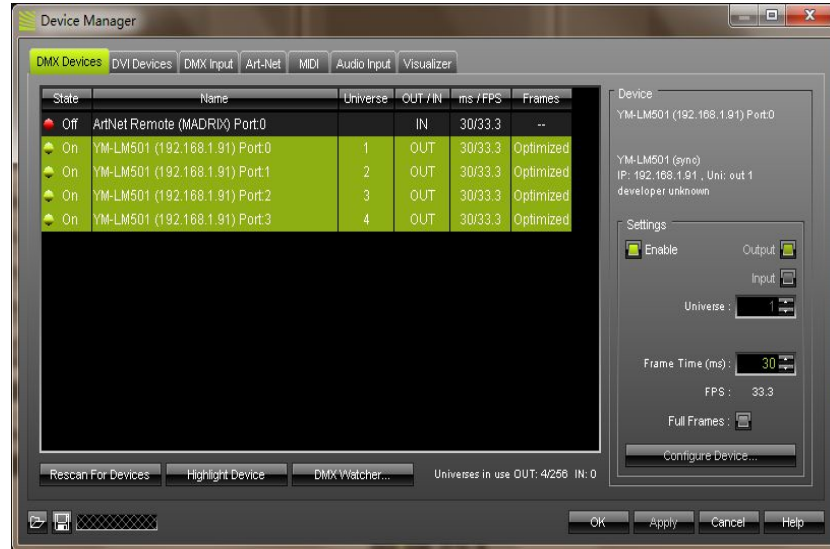

② Enable DMX controller output, 1) select DMX Devices tab; 2) Select the YM-LM501 port; 3) Select the right of Enable, click on the Apply button to complete the setup。

8、Precautions：

To reduce the risk of electric shock, fire or injury to persons, read and follow the warnings and precautions to prevent the occurrence of such events

10.1. Non-professionals do not open the enclosure.

10.2 Do not install this controller in a magnetic and high-pressure environments.

10.3 In order to reduce the component due to a short circuit caused the fire and the risk of damage, make sure the line is connected securely connected.

10.4 Make sure that the controller altogether good ventilation and proper temperature environment.

10.5 controller to the room lighting within a distance of 10 meters, the distance between lamps and lighting fixtures, please contact the manufacturer over the pitch range, you can add a signal amplifier.

10.6 with a controller, make sure to use AC100-230V power supply and ensure that the same transformer and controller connection polarity.

10.7 Do not plug the power cable in the open, be sure to turn on the power connection is secure and properly before the power.

10.8 When they do not own any unusual repairs, so not warranty.

10.9 In order to reduce the risk of electric shock, fire or personal injury, read and follow the warnings and precautions to prevent the occurrence of such events.

Warranty

I guarantee to fulfill the following commitments:

1, the company is only responsible for the LM 501 device itself.

2, on the date of sale, free warranty of any LM 501 due process, materials and other causes of defective product within a year.

3, we do not provide on-site services. If YM-LM 501 device fails, please contact us or the company will deliver the equipment to test and maintenance.

Special Instructions * ***

Due to abuse, misuse, careless (collision or inadequate installation) or force majeure factors caused by the failure of the service area is not over.**