M-D 8 Controller Instructions

Functional overview

1. System features

1. M-D 8 supports the standard USITT DMX512 / 1990 general protocol and the extended DMX512 protocol;

2. Controller signal output ADRI / PO terminal can realize the automatic address of DMX512 channel.

3. The address signal of M-D8 controller can output compatible output difference signal, which improves the transmission distance of the address signal

It is conducive to the long-distance transmission and effective address of addressing lines in the project application;

4. Three basic color independent brightness control, make the accurate adjustment of white balance more simple and effective;

Ethernet interface and UDP network protocol transmission stability, the maximum transmission distance of 100 meters;

5. Dual network interface can realize inter-controller cascade; the controller visually displays the connection status.

6. 8 port output, extension protocol with load point number is tested by the customer according to the chip characteristics, serial letter

Load number number 1 0 2 4 points, DMX signal load number 5 1 2 points.

2. design philosophy

1. Four-color independent algorithm: energy saving and environmental protection, pure color;

2. Aynchronous integrated control: online priority, no online signal automatic switching offline effect, to achieve video source backup;

3. Used in various complex applications such as special-shaped screen, multi-screen, building screen and pixel lamp screen at home and abroad;

4. Cooperate with the Internet control software to support the Internet remote control;

5. Support for Windows mainstream 32-bit and 64-bit operating systems: windows 2000, windows 2003,

windows XP, windows 7, window s 8, et al.

3. expansibility

1. It can play video and picture files in various formats simultaneously and asynchronously;

2. The playback software has sufficient interfaces to be compatible with other international general protocols, and support customers' personalized design needs;

3. Support U C S 5 1 2 A, B, C, D, T M 5 1 2, S M 1 6 5 1 2 and other driver chips.

IV. Appearance of the controller

1 2 34 56

M-D 8 front view:

M-D 8 Back Drawing:



 Power switch ⁽²⁾ LCD display screen

③ Power supply / communication indicator light

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④ Work indicator light

8

(5) 6 Adaptive network interface 7 output port 8 power interface

Port load: DMX standard protocol 170, DMX extension protocol 512 SPI signal: 1,024 points

5. Output port definition

M-D 8 controller uses 84pin terminal interface to output signals.4 The Pin terminals are sorted from left to right, as shown in the figure below:



Note: The signal end 234 is a differential signal. When the addressing line differential output is not used, only the 14 (data) can be connected.

VI. Controller dimension diagram

M-D 8



Note: The above three views are in size unit of mm (mm).

VII. Basic parameter table of the controller:

rated voltage	AC 220V		
power rating	1.5W		
length	283mm		
width	134mm		
altitude	45mm		
Fixed hole spacing	268mm; 68 mm		
Standard accessories	The AC power supply line 1		

Other accessories	bolt driver
Product weight	1.045Kg

8. Controller installation and application

8.1 Schemram of master sub-control connection:



8.2. Connect with the computer and the offline master control (the online signal is preferred. Automatic switch to go offline when there is no online signal

Signal), as shown in the figure below:



Ix. Project case illustration and schematic diagram:

Take DMX512, the 96-point and 18-point dot array screen composed of

point light sources, as an example, using the M-D8 controller,

Jbggwerifigeis arranged in a vertical S shape. Each output port of the controller controls 3 columns of point light sources, requiring a total of 32 DM X 512



Ten, network cable, production process



Network cable production: in practical application, there are two ways to make (cross interconnect and direct connection interconnection) We uniformly use the "direct line interconnect" 568B, which is the same line order at both ends. The specific line order is as follows:

1, orange and white 2, orange 3, green and white 4 blue 5, blue and white 6, green 7, brown and white 8, brown 4 joggle. The

XI. Reference table for the control distance of conventional signals: (only for reference, everything is based on the actual)

detailed information	TTL	4-line 512	5-line 512
Distance of the controller port to the light	15 Meter s	30 Meters	80 Meters
Distance of the controller to the last light		80 Meters	120 Meters
The distance between the lamp	Three meter s	30 Meters	30 Meters
Distance from the controller to the amplifier	15 Meter s	35 Meters	80 Meters
Distance between the amplifier and the lamp			
Distance between partial control and partial control	60 Meters		
Distance between main control and partial control	80 Meters		

Note: If the distance between the computer and the controller, between the master and the partial control exceeds the limited distance, the signal is disturbed and cannot be transmitted normally.

Rx:

1. Add a signal amplifier, the distance can be extended to 300 meters

2. Using optical cable can cable extended to 5 $\rm km$

Xii. Wiring diagram





Xiii. FAQ:

1, plug in the SD card has no effect?

A: a, check the SD card format b, check the file format c, check the direction of the SD

2. The controller display is normal, and the lamps do not have normal procedures?

A: A, whether the chip selection is normal, b, whether the program is normal

3. No signal is plugged in on the network cable crystal head?

Answer: check whether the line order is normal and whether the network port is normal

4, the signal is unstable, the lamps flash?

Answer: A, check whether the power supply has filter function b, whether the line has bad contact c, whether the controller port is normal d, whether the signal line is shielding e, whether there is a high-power machine and magnetic field near the controller