DMX512 Three Channels Constant Current Driver



I. Specification

◆ Size: L50*W30*H15 mm

◆ Input Voltage: DC 12~32V

DC 12V drive one to three LED lamps (each stream), DC 24V drive four to six LED lamps (each stream)

• Output current: 700mA (can be altered arbitrarily within 700mA)

◆ Power Consumption: less than 1W

◆ Output Power: 50W

II. Features

- ◆ Protocol: standard DMX512 protocol (1990)
- ◆ Input: RS485 differential input
- ◆ Mode: two working modes (controlled by DMX512 console, run built-in effect)
- ◆ Automatically run built-in effect (colorful gradients, colorful jump) without connecting master controller; in serial connection mode without connecting master controller, the first decoder board can automatically turn into "master controller" mode in which all decoder boards can achieve synchronization function.
- ◆ Connection type: standard parallel connection

 Decoders connect in parallel; every 32 decoders (the number is theoretical value, please refers to engineering field test about the actual value) need an amplifier; each decoder has single address programmed by coder.
- ◆ Three channels high-precisely output constant current: different current options, brightness can be adjusted from fully on to fully off.
- ◆ 256*256*256 degrees of gray level
- ◆ With high anti-interference and antistatic function
- ◆ Wide input voltage; output current stays constant; brightness of all lamps is consistent; without impact current when electrified.

III. Application

The decoder is mainly applied to high power and full color wall washer lamp, spot lamp, underground lamp, underwater lamp, stage lamp, tunnel lamp, etc.

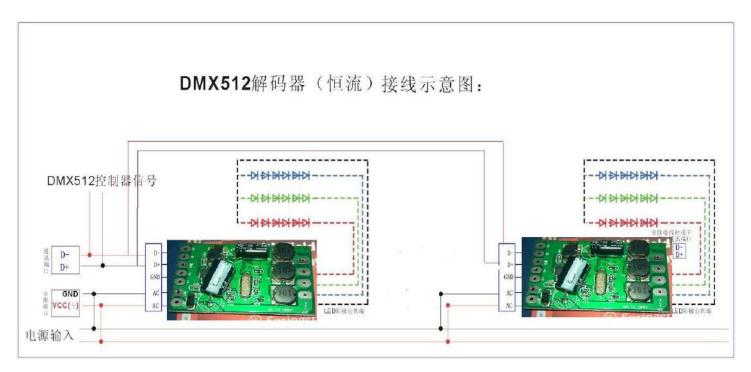


IV. Interfaces Introduction

- ◆ Connect D+, D-, GND to D+, D-, GND of next decoder board in parallel.
- ◆ When automatic coding is needed, connect SI of first board to GND, connect SO to SI of next board and leave the SO of last board floating.
- ◆ Connect VCC (the left side in picture) and GND to anode and cathode of input voltage (DC 12~24V)
- ◆ Connect VCC (the right side in picture) to the anode common point of LED lamp; connect R, G, B to the cathode of LED lamp.

V. Connection Diagram

Lamps connection diagram (parallel)



VI. Malfunction analysis and solution

The products have all been tested before leaving factory. Please read the connection diagram carefully in order to avoid unexpected malfunction. If the following malfunction phenomenon occurs in practical use, please refer to the solution in list.

Phenomenon	Analysis	Solution
Not working	Check if connection is correct	Connect again
Not working when electrified	Electron is not fully discharged	Prolong the interval time between
		power-on and power-off(more than
		three seconds)

VI. Encoding Method



RS485 chip must be welded on PCB board of H805SB to encode for H801DMX.

Connection method: connect the signal line of H801DMX to the corresponding signal line of H805SB, connect GND to GND, D- to D-, D+ to D+; if the decoder use the addressing line, you need to connect the addressing line to the GND port of H805SB.

Electrify H805SB and decoder, press "function" button on the remote control to enter the DMX address setting mode, press "confirm" after pressing the number key to encode for the connected decoder.

If there are multiple decoders, you need to select first and then encode for the selected decoder. If the decoder is not encoded after leaving factory, the address is 0. For those lamps that the address is 0 read the same channel data with the lamps that the address is 1. Enter address with number key, then press "choose", the corresponding decoder will light up the lamp; enter new address with number key, press "confirm" to replace the address. If multiple decoders have the same address, press "choose", all lamps will light up together and you need to press "white-" until one lit lamp is left, then you can encode for the decoder.

If the lamps are all off, press "white+". The number of pressing "white-" times is less than 16.

If the addressing line is being used, enter the start address, press "play all", H805SB will encode backward from the start address.

After encoding, you can press "choose play" — running red, green, blue water chase effect to check if the address is correct. The lamps that the address is beyond 300 are off.

The address ranges from 1 to 512.

The DAT mode, monochromatic mode and blending mode of H805SB are all valid on decoder.