



**DMX DECODER**

**MODEL NO: VT-DMX 512**

**SKU: 3307.**

## PRODUCT DESCRIPTION

This DMX512 decoder adopts the advanced micro control unit. It can receive the DMX-512 standard digital control signals that widely used internationally. It changes the signal into PWM control signal to actuate the LED lamp. It can also connect the DMX digital console to change the light or each dynamic effect. In addition, when the decoder is not connected with the DMX console, it can be used as a synchronous controller. That is to say you can synchronously control number of decoders and LED lights.

## TECHNICAL PARAMETERS

- Working temperature: -20-60 °C
- Supply voltage: DC12~24V
- Output:3 channels
- Static power consumption: <1W
- Output current: each channel 4A or 8A optional
- Output power: 4A each channel 12V<144W, 24V<288W  
8A each channel 12V<288W, 24V<576W
- DMX512standard: DMX512/1990

## DIRECTION OF USE

This product is in compliance with DMX512 protocol, and compatible auto index addressing and manual establishment address.

Each universal DMX controller takes up 3 DMX addresses. It adopts 2 ways (auto-index addressing and code switch) to set up the address. When adopting the auto-index addressing, all switches are "off" status. When adopting the code switch to set up address, the 10th bit (FUN) is "off" status, and other 9 bits are binary value code switch which are used to set up the DMX starting address code. The first bit is the lowest order bit, and the ninth is the highest order bit. That can set up 511 address codes. The DMX starting address code is equal to the sum of 1st to 9th bit. If move down one bit of code switch ("ON" set "1"), you can get the place-value of this bit. If move up (set "0"), the place-value is 0. For example: if you want to set up DMX starting address code for 73, you should move down the 7th, 4th, and 1st bit of code switch for "1", and others for "0", Then the place-value's sum of 1st to 9th bit is 64+8+1. That is to say, the DMX512 starting address code is 73. (The correspondence dials code position is as follows)

To choose the channel from the Dial in-line Package (DIP) Switch:

Decimals	1	2	3	4	5	6	7	8	9	10
Weight-number	1	2	4	8	16	32	64	128	256	FUN

### 1. Example 1:

Like figure 1, to set up the DMX starting address code for 37, should move down the 6th, 3th, 1st bit for "1", others for "0". Then the place-value's sum of 1st to 9th bit is 32+4+1, as is for 37.

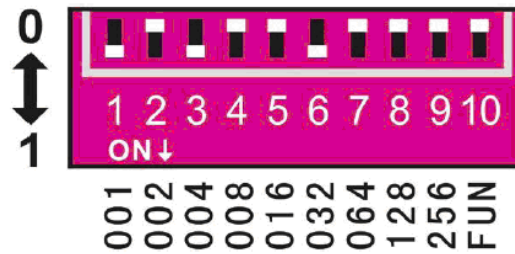


Figure 1

**2. Example 2:**

Like figure 2, to set up the DMX starting address code for 328, should move down the 9th, 7th, 4th bit for “1”, others for “0”. Then the place-value’s sum of 1st to 9th bit is 256+64+8, as is for 328.

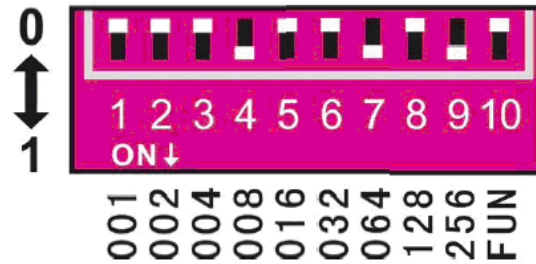


Figure 2

**Other function’s direction for use**

1. Test function:

The DIP switch’s 10th bit is “FUN”, for built-in function key. When “FUN”=“OFF”, is for DMX decoder function. This is used to adopt DMX signal. When “FUN”=“ON”, the test function like figure 3:

- 1-9 switch OFF: black
- Switch 1=ON: red
- Switch 2=ON: green
- Switch 3=ON: blue
- Switch 4=ON: yellow
- Switch 5=ON: purple
- Switch 6=ON: cyan
- Switch 7=ON: white

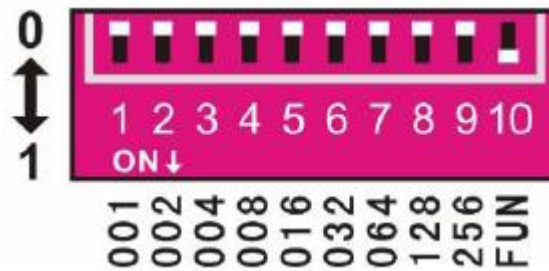


Figure 3

- Switch 8=ON: Seven-color jumpy changing (8 grades of speeds are available)
- Switch 9=ON: All-color gradual changing (8 grades of speeds are available)

2. Speed choice of jumpy changing and gradual changing effect:

In test function, when switch 8=ON, is for seven-color jumpy changing effect. When switch 9=ON, is for seven-color gradual changing effect. 8 grades of speeds are available for each effect:

- 1-7 switch OFF: 0 grades of speeds
- Switch 1=ON: 1 grade of speeds
- Switch 2=ON: 2 grades of speeds
- Switch 3=ON: 3 grades of speeds
- Switch 4=ON: 4 grades of speeds
- Switch 5=ON: 5 grades of speeds
- Switch 6=ON: 6 grades of speeds
- Switch 7=ON: 7 grades of speeds (maximum speed)

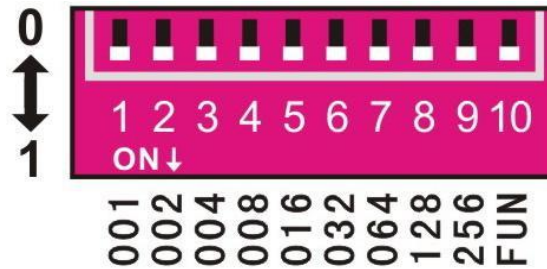


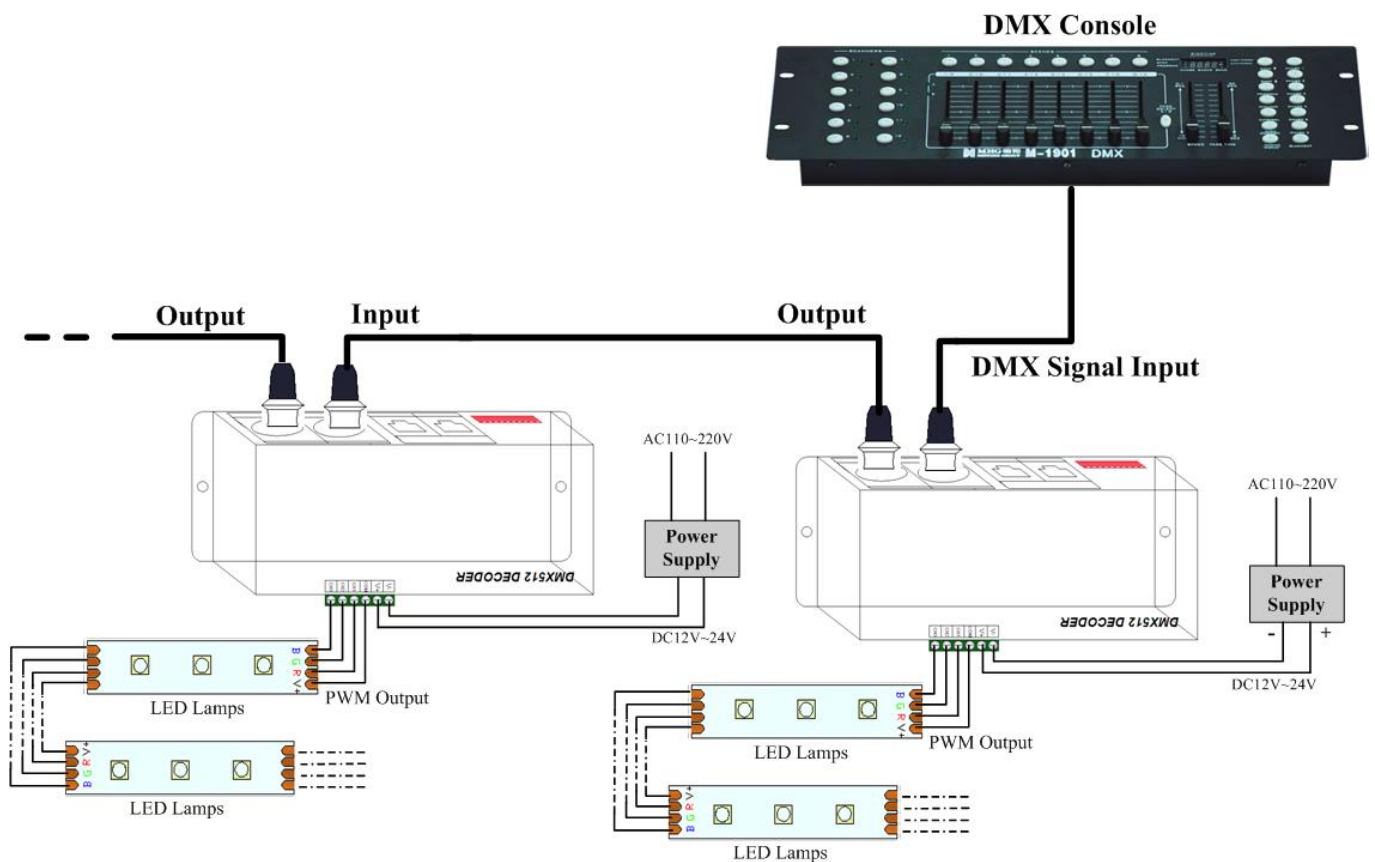
Figure 4



Like figure 4, when all switches are “ON” at the same time, the more value is taken as final. The state of decoder is gradual changing of test function. Its variable speed is 7. In addition, when signal indicator (green) blinks slowly, it runs the built-in program effectiveness of decoder. When the decoder receives the DMX signal, signal indicator will flash rapidly.

### TYPICAL APPLICATION

#### Typical application 1: small power LED connection:



### CAUTIONS

- This products Input voltage is DC12~24V. Other input voltages are not allowed.
- Lead wire should be connected correctly, according to the wire color and the connecting diagram offers.
- Overloads are prohibited.