

# DMX512 decoder operating instructions

## 1.Feature:

- (1)This is a DMX512 decoder that specially designed for WS2801 and WS2811,LED constant current driver IC. It's easy to use and wiring;
- (2)Supports inputting DMX512 signal directly and execute internal patterns;
- (3)Supports a variety of DMX512 control equipments;
- (4)5V or 8~24V input voltage;
- (5)With 51 kinds of patterns;
- (6)When running internal patterns, each decoder can control 2048 pixels;
- (7)Supports single and multiple synchronous.

## 2. Decoder appearance



Fig.1

## 3. Functions of each port::

Right side	IN	DAT+	DMX512 input signal + pole
		DAT -	DMX512 input signal - pole
		GND	Ground
	OUT	DAT+	+ pole of DMX512 signal cascade to the next decoder
		DAT -	- pole of DMX512 signal cascade to the next decoder
		GND	Ground
		CLK	WS2801 clock signal output
	DATA	WS2811 and WS2801's output signal	
	GND	Ground	
	VDD	The positive power supply (Same as the chosen input voltage on the left side)	
Left side	MODE	Pattern switching	
	SPEED	Speed switching	
	GND	Ground	
	5V	Positive power supply, 5V	
	8~24V	The positive power supply, 8~24V	
	<input type="checkbox"/> +5V	When clicked stands the power supply voltage is 5V	
	<input type="checkbox"/> +12v/24V	When clicked stands the power supply voltage is 8~24V	

**Note:** The decoder's power supply voltage is optional,(can be changed internally, the method will be mentioned later ) please be sure that what the power supply voltage is selected then power the decoder.

#### 4. Specific parameters:

Operating Voltage: 5V or 8~24V

Power Consumption: less than 1W

#### 5. Operating Instructions

This decoder can work in two ways. Input the DMX512 signal or just running the internal patterns.

**Works without DMX512 signal :** Disconnect the DMX512 signal first and then power the decoder , decoder will run the internal patterns.

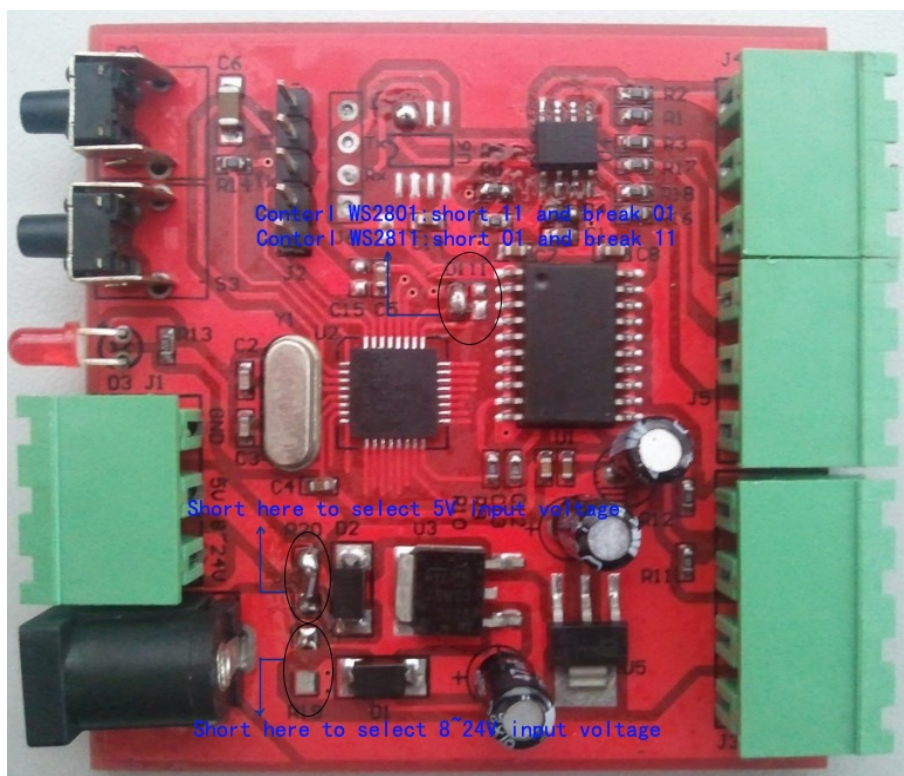
- Pressing the key MODE to choose patterns from pattern 1 to pattern 51 , and it will run your chosen pattern cyclically. When running at pattern 51, it will jump back to pattern 1 when pressing MODE,;
- Pressing the key SPEED to switch the running speed. There are 5 levels of speed can be chosen, it will be slower each time pressing the key SPEED. When running at the slowest level, it will jump back to the fastest level when pressing SPEED.
- While the decoder running in any pattern and speed , pressing the key MODE and SPEED at the same time ,the decoder will jump to the pattern 0;(pattern 0 is a pattern that run some patterns cyclically at a specific speed)

**Works with DMX512 signal:** Connect the DMX512 signal first, and then power the decoder.

**Using decoders in cascade :** When using the decoders in cascade , DMX512 signal will be decoded in each decoder at the same time, and display the same content.

#### 6. Power supply choice and choose 2801 or 2811 to be controlled:

When using this decoder, users can choose 5V or 8~24V power supply to meet their requirement. Users can also choose WS2801 or WS2811 to be controlled. The methods are showed as the figure2 below.



**Fig.2**