

ORL-DMX-1809

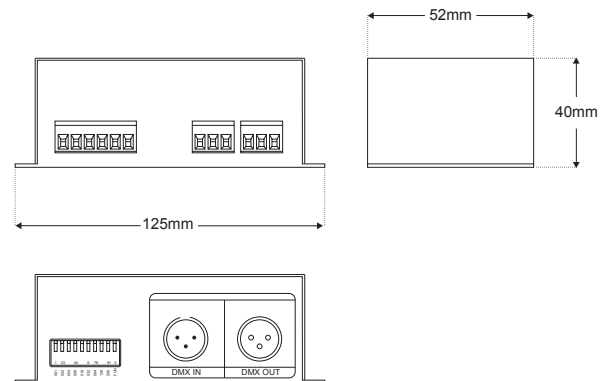
ITEM NO. DRIVER - 14059

DMX-SPI signal decoder works to convert DMX512 digital signal to Spi (TTL) digital signal. It can control LED lights compatible with driving IC, and control every channel of the LED lights, realize the function of 0-100% dimming or editing all sort of change effect.

DMX-SPI decider are wildly used in LED flashing word string light, LED dot light, SMD strip, LED digital tubes, LED wall light, LED pixel creen, Hi-power spotlight, flood light, etc.



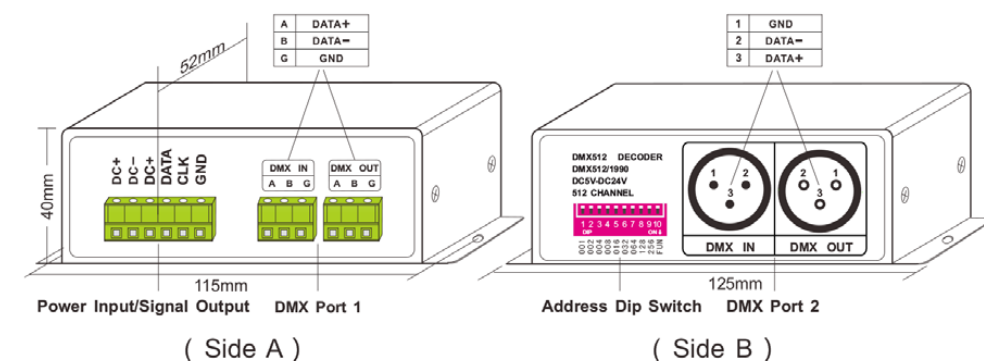
Dimensions



Technical Specification

Supply Voltage	DC 5V-24V
Output	SPI (compatible with TM1803, TM1804, TM1809, TM1812, UCS1903, UCS1909, UCS1912, UCS2903, UCS2909, UCS2912, Ws2811, WS2812 driving IC)
Decoding Channels	512 Channels/ Unit
Output Grey Scale	256 Levels/ CH (8bit/CH)
DMX512 Connector	XLR-3, Green Terminal
Product Size	L125 x W52 x H40mm
Package Size	L135 x W70 x H50mm
Working Temp	-20-60°C
Gross Weight	300g

Configuration Diagram



Output Port Definition

No.		Silk Screen	Function
1	Power Supply	DC+	DC5V-24V LED Power Supply Input
		DC-	
2	Output Port Connect LED	DC+	LED Power Supply Anode
		DC-	Data Cable
		CLK	Clock Cable (N/A)
		GND	Ground Wire (DC-)

How to set DMX address via dip switch

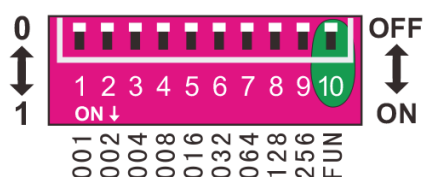


Figure 1

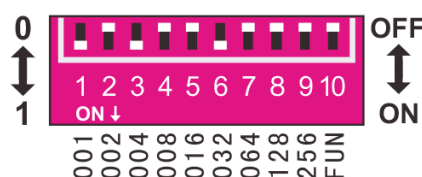


Figure 2

The Decoder enter into DMX control mode automatically, when receiving DMX signal.

Lke figure 1: FUN=OFF is high speed (upward), FUN=ON is low speed (downward)

Dip	1	2	3	4	5	6	7	8	9	10
Address	001	002	004	008	016	032	064	128	256	Hight/ Speed
Instructions										

1. The Driving chip of this decoder has option for high and low speed (800K/400K), please choose the suitable speed according to the design of your LED lights, in most cases, it is high speed.

2. DMX512 initial address is the total amount of the Dip switch 1-9, down dip switch to "ON" position, User can get its place value, Up dip switch to "OFF" position, its place value is 0.

For example, Set initial address to 37

As figure 2, set the 6th, 3rd and 1st bit of the DIP switch downward to "1", the rest to "0", the total sum from 1-9 is 32+4+1, so the DMX512 initial address code is 37.

Testing Function

The DMX decoder will be entered into self control mode automatically without DMX signal input

DIP1	DIP2	DIP3	DIP4	DIP5	DIP6	DIP7	DIP8	DIP9
Red	Green	Blue	Yellow	Purple	Cyan	White	Jumping	Gradual Change

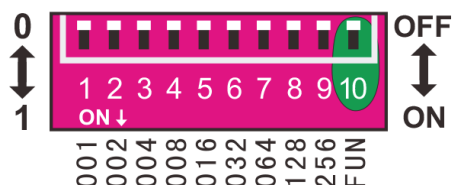


Figure 3



Figure 4

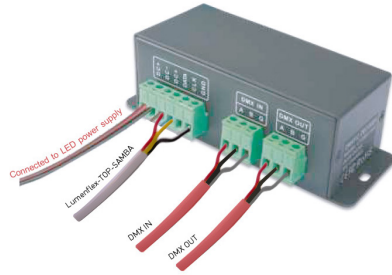
DIP8 / DIP9=ON: change mode. DIP switch 1-7 is to realize 8 speed levels. 7 is the fastest levels while DIP switch 1-7+OFF: the speed is 0.

DIP1	DIP2	DIP3	DIP4	DIP5	DIP6	DIP7
Speed 1	Speed 2	Speed 3	Speed 4	Speed 5	Speed 6	Speed 7

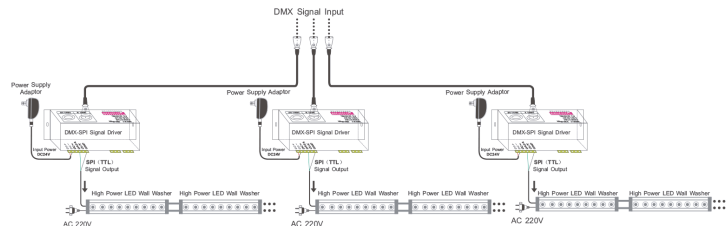
As figure, when several DIP switches are on, subjected to the highest switch value, when allthe DIP switches=ON, it's the colour gradual in the test mode, 7 speed level.

Configuration Diagram

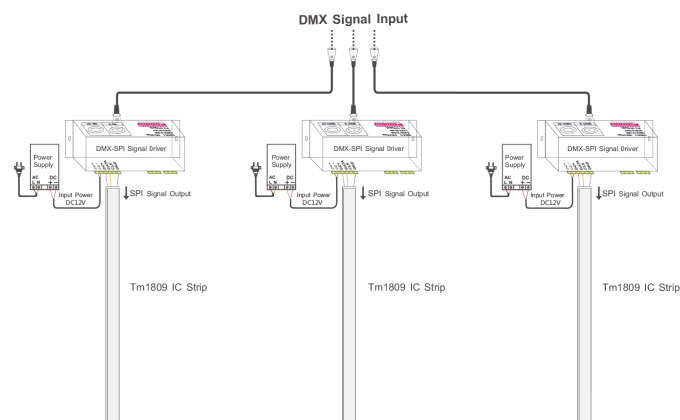
1) LED Digital Strip Physical Conjunction Diagram



2) LED Wall Washer Conjunction Diagram



3) LED Digital Strip Conjunction Diagram



Attention

- 1) The product shall be installed and serviced by a qualified person.
- 2) This product is IP20 rated. Please avoid the sun and rain. When installed outdoors please ensure it is mounted in a water proof enclosure.
- 3) Good heat dissipation will prolong the working life of the controller. Please ensure good ventilation.
- 4) Please check if the output voltage of any LED power supplies used comply with the working voltage of the product.
- 5) Please ensure that adequate sized cable is used from the controller to the LED lights to carry the current.
- 6) Ensure all wire connections and polarities are correct before applying power to avoid any damages to the LED lights.
- 7) If a fault occurs please return the product to your supplier. Do not attempt to fix this product by yourself.