

# LT-DMX-8806 DMX-SPI Signal Decoder Manual



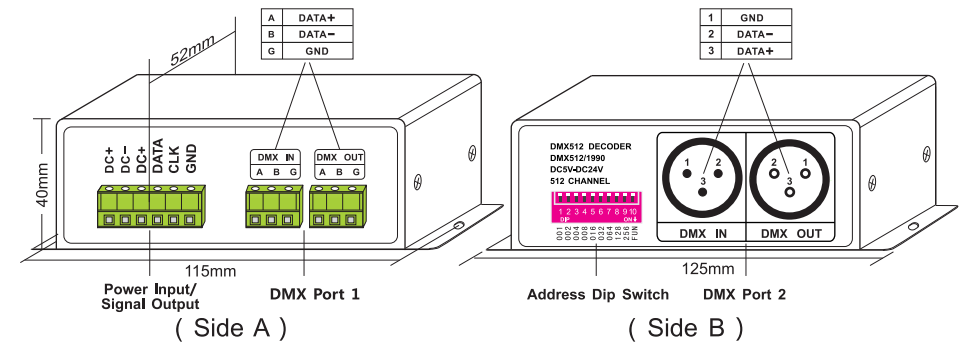
Welcome to choose our DMX decoder, DMX-SPI signal decoder works to convert DMX512 digital signal to SPI (TTL) digital signal. It can control LED lights compatible with driving IC, and control every channel of the LED lights, realize the function of 0~100% dimming or editing all sorts of change effect.

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

## 1. Product Parameter:

| LT-8806             |                                                  |
|---------------------|--------------------------------------------------|
| Input Voltage       | DC5V~DC24V                                       |
| Input Signal        | DMX512                                           |
| Output Signal       | SPI ( Compatible with LPD8803/8806 LED Drive IC) |
| Decoding Channels   | 512 Channels/Unit                                |
| Output Grey Scale   | 256 Grey Scales(8 Bits/CH)                       |
| DMX512 Connector    | XLR-3, Green Terminal                            |
| Product Dimension   | L125×W52×H40mm                                   |
| Package Size        | L135×W70×H50mm                                   |
| Working Temperature | -30°C~65°C                                       |
| Weight (G.W.)       | 300g                                             |

## 2. Configuration Diagram:

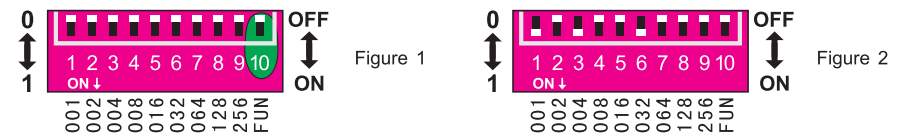


## 3. Output Port Definition:

| No. |                            | Silk screen | Function                        |
|-----|----------------------------|-------------|---------------------------------|
| 1   | Power Supply Input Port    | DC+         | DC5V-24V LED Power Supply Input |
|     |                            | DC-         |                                 |
| 2   | Output Port Connect Lights | DC+         | LED Power Supply Anode          |
|     |                            | DATA        | Data Cable                      |
|     |                            | CLK         | Clock Cable                     |
|     |                            | GND         | Ground Wire(DC-)                |

## 4. How to Set DMX Address via Dip Switch:

When FUN=OFF, Decoder is DMX controlling mode, When FUN=ON, Decoder is self-test mode.



### 1. Set DMX512 Original Address:

| DIP                                                                                                                                                                                                                                                              | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Address                                                                                                                                                                                                                                                          | 001 | 002 | 004 | 008 | 016 | 032 | 064 | 128 | 256 | FUN |
| Instructions                                                                                                                                                                                                                                                     |     |     |     |     |     |     |     |     |     |     |
| DMX512 initial address code is equal to the total amount of the Dip switches' number from 1 to 9, press Dip switch downward(ON.: at position "1"), user can get the number of its position, if pressing upward(at position"0"), the number of its position 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 to 9 is 32+4+1, so the DMX512 initial address code is 37.

## 2. Testing Function:

Figure 3 shows the DIP switch configuration for testing function. The 10th DIP switch is FUN (ON), and the other 9 DIP switches are OFF (BLACK).

As Figure 3, FUN=ON(the 10th DIP switch is FUN): testing function, acting as the function key 1-9DIP switch=OFF: BLACK.

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

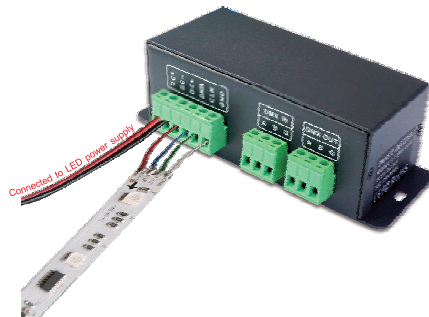
DIP8/DIP9=ON:change mode. DIP switch1-7 is to realize 8 speed levels, 7 is the fastest levels while dip switch 1-7=OFF:the speed is 0.

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

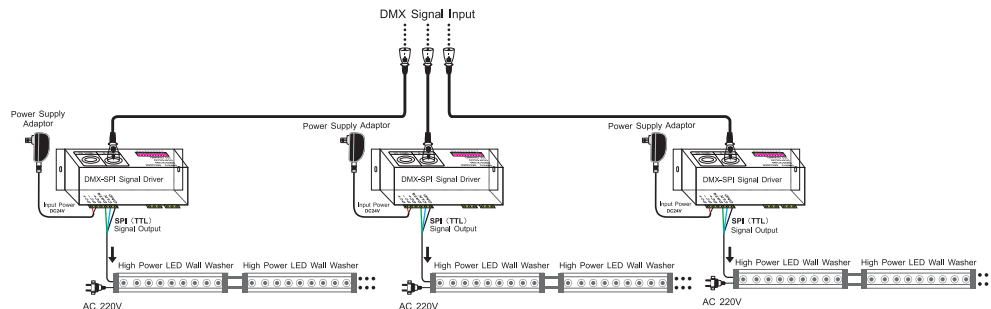
As Figure 4, when several dip switches are on, subjected to the highest switch value, when all the dip switches=ON,it's the color gradual in the test mode,7 speed level

## 5. Configuration Diagram:

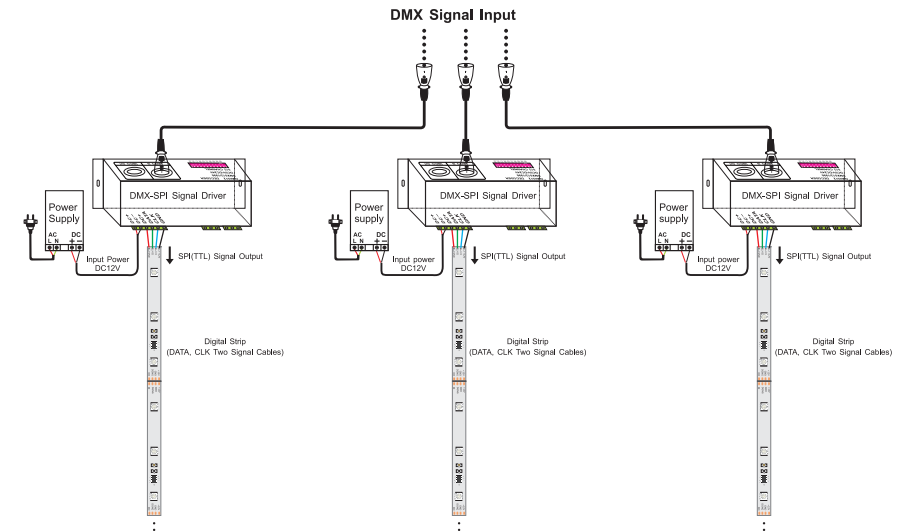
## 1. LED Digital Strip Physical Conjunction Diagram:



## 2. LED Wall Washer Conjunction Diagram.



## 3. LED Digital Strip Conjunction Diagram.



## 7. Attention:

1. The product shall be installed and serviced by a qualified person.
2. This product is non-waterproof. 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. Please also ensure that the cable is secured tightly in the connector.
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.

## 8. Warranty Agreement:

1. We provide lifelong technical assistance with this product:
  - A 5-year warranty is given from the date of purchase. The warranty is for free repair or replacement and covers manufacturing faults only.
  - For faults beyond the 5-year warranty we reserve the right to charge for time and parts.
2. Warranty exclusions below:
  - Any man-made damages caused from improper operation, or connecting to excess voltage and overloading.
  - The product appears to have excessive physical damage.
  - Damage due to natural disasters and force majeure.
  - Warranty label, fragile label and unique barcode label have been damaged.
  - The product has been replaced by a brand new product.
3. Repair or replacement as provided under this warranty is the exclusive remedy to the customer. LTECH shall not be liable for any incidental or consequential damages for breach of any stipulation in this warranty.
4. Any amendment or adjustment to this warranty must be approved in writing by LTECH only.

★ This manual only applies to this model. Ltech reserves the right to make changes without prior notice.