

**Wide Low Input Voltage  
 DMX512 Decoder**



**High Power DMX Decoder & Driver**

Meets DMX 512/1990 Protocol  
 1210131 can drive 5A ( Each Channel )  
 Capable of driving many kinds of RGB LED lamps and luminaires

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APPD:	Jackson				Sheet No. 1 from 7	Part No.:				<b>1210131</b>

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**INTRODUCTION**

Thank you for choosing 1210131 DMX512 decoder. With advanced micro-computer control technology, 1210131 convert the widely used DMX512/1990 signal to analog signal. It allows user to choose 1~3 output channel, 256-level brightness control. This compact decoder connects to light console and analog device, RGB LED lamps or lighting & building lamps allowing its user to create endless possibilities of light shows.

**FEATURES**

- Meets DMX512/1990 protocols
- 256-level brightness, full-color control
  - 3 output channels
- 1210131 can drive 5A current ( each channel )
- Compatible with any DMX512 controller to produce perfect lighting effects.
  - Capable to drive 1 - 3 channel of lamps
    - Can set the DMX addresses freely
- Indicator light of each channel state within (optional)
- Modular design, can be combined with LED luminaires neatly
  - Low input voltage, safe to operate.
  - Custom-made size is available

**TECHNICAL CHARACTERISTICS**

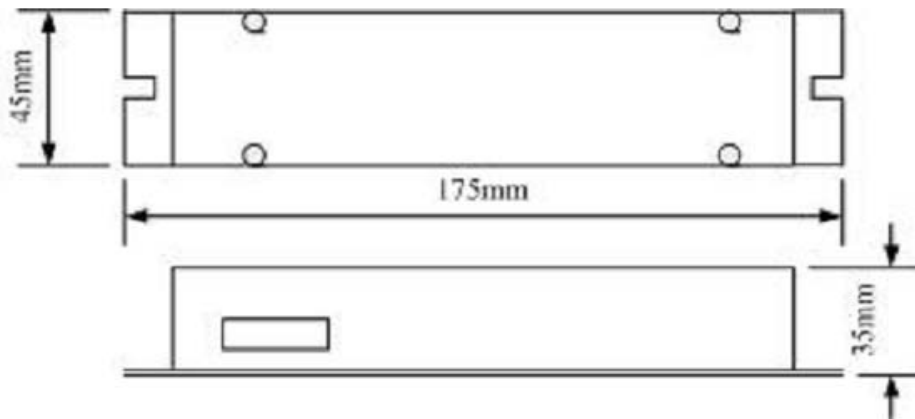
<b>Decode Channel:</b>	1~3
<b>Input Signal:</b>	DMX-512/1990 digital signal
<b>Output Signal:</b>	0~24V PWM signal
<b>Power Supply:</b>	6~25V DC
<b>Power Output:</b>	< 360W
<b>Power Dissipation:</b>	< 1W
<b>Operating Temperature:</b>	0°C ~ 70°C
<b>Size:</b>	175mm x 45mm x 35mm, Custom size available
<b>Weight:</b>	≤ 300 g

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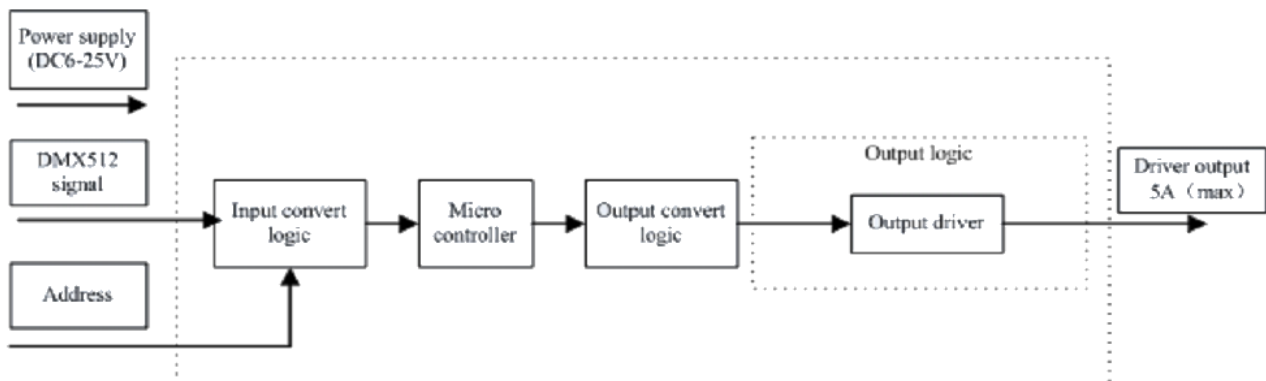
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**DIMENSION**



**INTERNAL BLOCK DIAGRAM**



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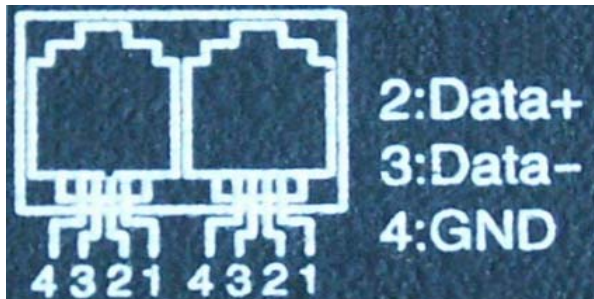
**APPEARANCE**



- (1) DMX signal input interface (RJ11)
- (2) DMX signal output interface (RJ11)
- (3) Address setting interface
- (4) Driver output interface
- (5) Power input interface

**INTERFACE INTRODUCTION**

- DMX signal interface



- 1: No Connection
- 2: Data +
- 3: Data -
- 4: Ground

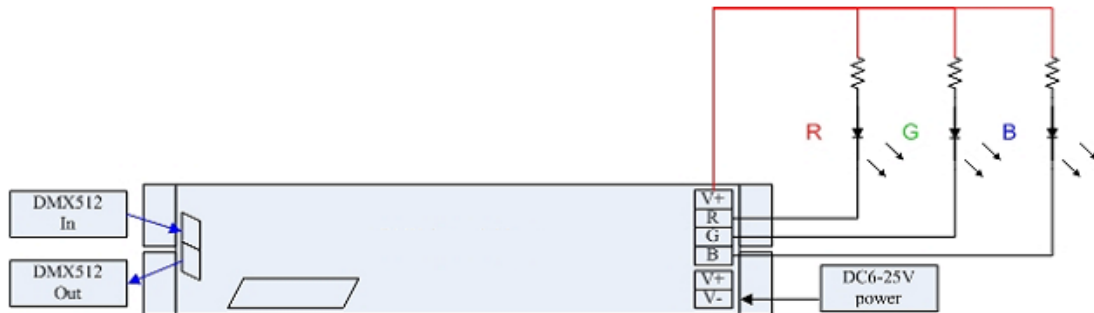
- Address setting interface: Please find the detailed instruction for Address setting at Page
- Power input interface: DC 6-25V input for decoder and lamp
- Driver output interface: Common anode, V+ and R,G,B interface, can drive kinds of RGB module or single-color module, Can regulate output current according to the actual load

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**TYPICAL APPLICATIONS (RGB LED)**



**Connection of DMX-512 Signal**

- The wire for DMX signal is STP, the DMX signal has positive and negative signal. Pay attention to the polarity while soldering. Connect the positive signal, negative signal and GND to the corresponding signal of 1210131.
- Connect a signal terminal at the end of the whole connection.

**Connection of DMX-512 Signal**

This product has a wide input/output voltage(DC 6-25V), it's rating current is 5A, so the rated power is different in different input voltage, for example:

Rating power in 12V:  $12V \times 5A \times 3 = 180 \text{ W}$   
 Rating power in 24V:  $24V \times 5A \times 3 = 360 \text{ W}$

**DMX-512 Address Setting**

The DIP switch on 1210131 can set the binary value of the DMX512 address to receive data. The correlative bits is the 1-9 bits of the DIP switch, the 1st bit is LSB, the 9th bit MSB 512 addresses totally. The start address is the number of the first channel of the decoder, the second channel will receive the data of start address+1, and the third channel will receive the data of start address+2. There are two way to find out the relation between the DIP switch and DMX address.

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**Calculation Method:**

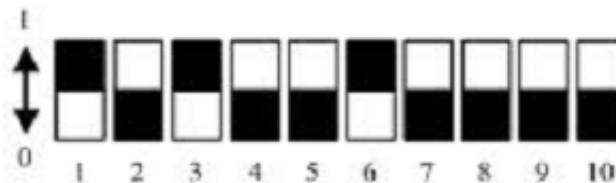
calculational formula: [the sum of 1~9 bit of the DIP switch] + 1 = DMX start address  
 Set the n(th) bit of the DIP switch up (set to "1") to get the value of such bit;  
 Set the n(th) bit of the DIP switch down "0", so the value of this bit is 0.  
 Note: the 10th bit is not use.

**DIP:**

DIP	1	2	3	4	5	6	7	8	9
Value	1	2	4	8	16	32	64	128	256

Example 1: Set to 38

Set the 6th, 3rd, 1st bit of the DIP switch to "1", others set to "0",  
 then the sum of the 1~9 is 32+4+1, then add 1 to it,  
 is the start address 38. That is: [ 32 + 4 + 1 ] + 1 = 38



Example 2: Set to 226

Set the 8th, 7th, 6th, 1st bit to "1", others set to "0",  
 then the sum of the 1~9 is 128+64+32+1, then add 1 to it,  
 is the start address 226. That is: [ 128 + 64 + 32 + 1 ] + 1 = 226

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**Warranty Discription**

**EDCON WARRANTY**

Manufacturer warrants to the Purchaser that each Product manufactured and sold by it will be free from defects in material and workmanship in its intended use (normal wear and tear excepted) for the period of one year from date of Purchasers purchase (the invoice date) from Manufacturer. Manufacturers warranty flows only to Purchaser. If any Product covered by this warranty is returned by Purchaser in accordance with Manufacturers Products Return Policy, including without limitation its return authorization provisions, within the applicable warranty period set forth above, and upon examination Manufacturer determines to its satisfaction that such Product was defective in material or workmanship at the time of delivery to the Purchaser. Manufacturer will, at its option, repair or replace the Product or the defective part thereof, or reimburse Purchaser for the purchase price. For purposes of clarity, "repair or replace the Product or the defective part thereof" does not include any reinstallation costs or expenses. If Manufacturer chooses to replace the Product and is not able to do so because it has been discontinued or is not available, Manufacturer may replace it with a comparable product. The Products Return Policy is posted on Manufacturers Internet web site at <http://www.edcon-components.com>. The foregoing notwithstanding, Manufacturer will not be responsible for damage to any Product resulting from misuse, negligence, acts of God or accident or resulting from repairs or alterations made by any person or firm not duly authorized by Manufacturer in writing. Purchaser shall convey with each Product distributed to end users the MANUFACTURERS WARRANTY included by Manufacturer with such Product, and, if Manufacturer determines that the appropriate remedy for a defective product is refund of Purchasers purchase price, Purchaser shall refund to the end user (or arrange for the refund to the end user of) the full purchase price paid by the end user for such defective Product. The Products Return Policy is posted on Manufacturers Internet web site at <http://www.edcon-components.com>. The foregoing notwithstanding, Manufacturer will not be responsible for damage to any Product resulting from misuse, negligence, acts of God or accident or resulting from repairs or alterations made by any person or firm not duly authorized by Manufacturer in writing. Purchaser shall convey with each Product distributed to end users the MANUFACTURERS WARRANTY included by Manufacturer with such Product, and, if Manufacturer determines that the appropriate remedy for a defective product is refund of Purchasers purchase price, Purchaser shall refund to the end user (or arrange for the refund to the end user of) the full purchase price paid by the end user for such defective Product.

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