

LT- 831-6A DMX512 3CH CV DECODER



Thanks for choosing LT-831 DMX512 Decoder.

LT-831 RGB DMX decoding driver works to convert universal DMX512/1990 digital signal to PWM signal, Which controlled by DMX512 console, with 16-bit gray scale output per channel. Realize 0-100% brightness or various changing effect. And can control single color, RGB LED lights.

1. Product parameter

LT-831-6A DMX512 3CH CV DECODER	
Input signal	DMX512/1990
Power supply chosen	DC CV SMPS
Input voltage	DC5V~DC24V
Max current load	6A/CH×3CH Max 18A
Max output power	90W/216W/432W(5V/12V/24V)
Output Gray Scale	16bit/CH
DMX512 socke	XLR-3, RJ45, Green terminals
Working temperature	-30°C-65°C
Dimension	L163×W78×H40mm
Package size	L180×W82×H50mm
Weight(G.W)	340g

2. Basic Features

- 3 output channels, can control single color, RGB LED light.
- 0-100% brightness, 256-level brightness control.
- User addressable DMX interface, with easy dip-switch settings and testing modes.
- Input voltage is DC5V~DC24V.
- Decoder comes with manual dimming, 10 testing modes, 8 rate of change.

3. Set initial DMX address

DIP	1	2	3	4	5	6	7	8	9
Value	001	002	004	008	016	032	064	128	256

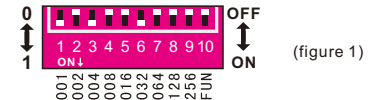
Remark

This decoder occupies 4 addresses, adopted Dip. Switch to set the address, the Dip switches from 1 to 9 are a kind of binary value coding switches used to set DMX512 initial address code, the correlative bits in the 1-9 bits of the DIP switch, the 1st bit is LSC, the 9th bit MSC, 511 addresses totally 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.



Example 1: Set initial address to 37


Set the 1st, 3rd, 6th, bit of the DIP switch downward to "1" the rest to "0" (like figure 1), the summation from 1 to 9 is 1+4+ 32, so the DMX512 initial address code is 37.



Example 2: Set initial address to 328

Set the 4th, 7th, 9th, bit of the DIP switch downward to "1" the rest to "0" (like figure 2), the summation from 1 to 9 is 8+64+ 256, so the DMX512 original address code is 328.






As picture, the 10th DIP switch is FUN, acting as the function key
1-9DIP switch=OFF: BLACK


Brightness	DIP1-3 (CH1)	DIP4-6 (CH2)	DIP7-9 (CH3)
0	000	000	000
14%	100	100	100
28%	010	010	010
43%	110	110	110
57%	001	001	001
71%	101	101	101
86%	011	011	011
100%	111	111	111

3. Testing function:



As picture, the 10th DIP switch is FUN, 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	full brightness	Strobe	Color gradual



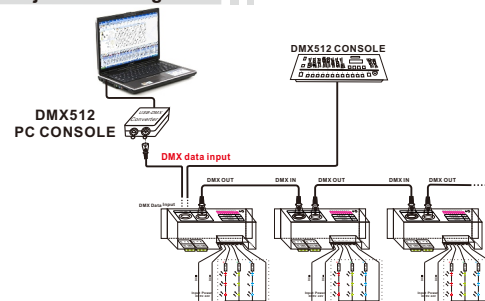
When decoder is at testing mode, DIP switch 8 is at "ON", it is the 7 color jumping, when DIP switch 9 is at "ON", it is the 7 color smooth, with 8 speed levels for each effect.

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

As picture, when several DIP SWITCH at "ON" at the same time, comply with the largest value switch, the testing function is when FUN=ON, DIP SWITCH 8 & 9 for the color changing function, DIP SWITCH 1-7 for the speed function, comply with the largest value switch, SPEED 7 is the fastest speed.

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4. Conjunction Diagram



NOTE: According to DMX512 protocol, in order to ensure a steady DMX data transmission, you should weld a metalster (Metal Thin Film resistor. 90-120Ω1/4W) at the end of each layout of DMX data cable (between Foot 2 and Foot 3, Data + and Data -), please also refer to your DMX console manual to select a correct resistor.

5. Attention

- The product shall be installed and serviced by a qualified person.
- This product is non-waterproof. Please avoid the sun and rain. When installed outdoors please ensure it is mounted in a water proof enclosure.
- Good heat dissipation will prolong the working life of the controller. Please ensure good ventilation.
- Please check if the output voltage of any LED power supplies used comply with the working voltage of the product.
- 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 to avoid the accidents due to overheat and poor contact on the wire.
- Ensure all wire connections and polarities are correct before applying power to avoid any damages to the LED lights.
- If a fault occurs please return the product to your supplier. Do not attempt to fix this product by yourself.

6. Warranty Agreement

- We provide lifelong technical assistance with this product:
 - A 3 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 3 year warranty we reserve the right to charge for time and parts.
- 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.
- Repair or replacement as provided under this warranty is the exclusive remedy to the customer. Litech shall not be liable for any incidental or consequential damages for breach of any stipulation in this warranty.
- Any amendment or adjustment to this warranty must be approved in writing by Litech only.

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

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