

# HX-SZ200-DECODER

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Category: DMX512 Controllers and Decoders

Source model: HX-SZ200-DECODER

Internal reference: HOION-CTRL-068

## Product Overview

LED DMX512 Decoder

HX-SZ200-DECODER, adopts the advanced micro control unit, It can receive the DMX-512 standard digital control signal which is internationally widely used. It changes the signal into PWM control signal to actuate the LED lamp. It can also connect the DMX digital console to change the light or each dynamic effect.

## Technical Details

Product Feature

As a constant voltage decoder, accept international popular DMX512 standard digital control signal, convert it to the PWM signal to drive LED lamps, applicable to a variety of constant voltage LED lamps, such as RGB LED module, lights, string lights, etc.

DMX decoder can be controlled by DMX master, and the decoder can connect the signal line to continue to expand the channels up to 512, eventually be able to achieve more change in effect.

When the DIP switch are all "0", the decoder assigned address automatically, also can required by the DIP switch.

If no master, DMXBM decoder can be set as synchronized controller, all of them can synchronize work as a system.

When used alone, DMXBM also can be used as a RGB controller, with 9 modes in total, can be chosen by the DIP switch.

In order to achieve synchronization of more LED lamps, RGB amplifier can be used.

There channels for RGB output, each allows a maximum current of 6A.

High watt output design, up to 432W.

2-year warranty.

Technical Parameters

| Working temperature | -20-60℃

| Supply voltage | 12V~24V

| Output | 3 channels

| Connecting mode | common anode

| External dimension | L127\*W42\*H33 (mm)

| Packing size | L135\*W55\*H40 (mm)

| Net weight | 150g

| Gross weight | 170g

| Output gray | 256 levels 1/4 RGB each 1/4

| Output current | <6A(each channel)

| Output power | 5V:<90W, 12V:<216W, 24V:<432W

| Frequency of RF remote control | 433.9MHz

| Frequency of PWM signal output | 5.2KHz

Interface Specifications

DMX input/output interface:

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Adopt Standard RJ45 network cable port.

Address code and set feature service interface:

Adopt 10-bit side of the dial-type DIP switch.

Power and Payload interface:

Adopt male and female connector with screw.

Direction for use

This product is in compliance with DMX512 protocol, compatible autoindex addressing and manual establishment address.

Each universal DMX controller takes up 3 DMX addresses. It adopts 2 ways (autoindex addressing and code switch) to set up the address.

When adopting the autoindex addressing, all switches are "off" status. When adopting the code switch to set up address, the 10th bit(FUN) is "off" status, and other 9 bits are binary value code switch which are used to set up the DMX starting address code. The first bit is the lowest order bit, and the ninth is the highest order bit. That can set up 511 address codes. The DMX starting address code is equal to the sum of 1st to 9th bit. If move down one bit of code switch ("ON" set "1"), you can get the placevalue of this bit. If move up (set "0"), the placevalue is 0. For example: if you want to set up DMX starting address code for 73, you should move down the 7th, 4th, and 1st bit of code switch for "1", and others for "0". Then the placevalue's sum of 1st to 9th bit is  $64+8+1$ . That is to say, the DMX512 starting address code is 73. (The correspondence dials code position is as follows)

To choose the channel from the Dial in-line Package (DIP) Switch:

| Number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10

| Weight number | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | FUN

Example 1:

Like figure 1, to set up the DMX starting address code for 37, should move down the 6th, 3th, 1st bit for "1", others for "0". Then the placevalue's sum of 1st to 9th bit is  $32+4+1$ , as is for 37.

Figure 1

Example 2:

Like figure 2, to set up the DMX starting address code for 328, should move down the 9th, 7th, 4th bit for "1", others for "0". Then the placevalue's sum of 1st to 9th bit is  $256+64+8$ , as is for 328.

Figure 2

The function outside of the DMX

Control with DIP switch

Test function:

The DIP switch's 10th bit is "FUN", for built-in function key. When "FUN"="OFF", is for DMX decoder function. This is used to adopt DMX signal. When "FUN"="ON", the test function like figure 3:

1-9 switch OFF: black

Switch 1=ON: red

Switch 2=ON: green

Switch 3=ON: blue

Switch 4=ON: yellow

Switch 5=ON: purple

Switch 6=ON: cyan

Switch 7=ON: white Figure 3

Switch 8=ON: Seven-color jumpy changing (8 grades of speeds are available)

Switch 9=ON: All-color gradual changing (8 grades of speeds are available)

Speed choice of jumpy changing and gradual changing's effect:

In test function, when switch 8=ON, is for seven-color jumpy changing effect. When switch 9=ON, is for seven-color gradual changing effect. 8 grades of speeds are available for each effect:

1-7 switch OFF: 0 grades of speeds

Switch 1=ON: 1 grade of speeds

Switch 2=ON: 2 grades of speeds

Switch 3=ON: 3 grades of speeds

Switch 4=ON: 4 grades of speeds

Switch 5=ON: 5 grades of speeds

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Switch 6=ON: 6 grades of speeds

Switch 7=ON: 7 grades of speeds (maximum speed)

Figure 4

As figure 4, when all switches are "ON" at the same time, the more value is taken as final. The state of decoder is gradual changing of test function. Its variable speed is 7. In addition, when signal indicator (green) blinks slowly, it runs the built-in program effectiveness of decoder. When the decoder receives the DMX signal, signal indicator will flash rapidly.

### Typical Applications

Be used as a DMX512 decoder2:

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Product information for placing order

| Product name | Item number

| DMX512 Decoder | HX-SZ200-DECODER

Source reference: <https://www.hoionlighting.com/products/LEDdiaoguangqi/LEDyinlekongzhiqi/2021/0419/375.html>