

PRODUCT SPECIFICATIONS

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High Power DMX Decoder&driver

Model: CL-PX24500

Meets DMX512/1990

Can drive 5A (Each Ch)

Can drive many kinds of RGB LED lights

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Updated at 2010-10-9

DMX DECODER&DRIVER SERIES

PX24500

SUMMARY

Thank you for using PX series DMX512 decoder. With advanced micro-computer control technology, The PX series converts widely used DMX512/1990 signal to analog signals. You Can choose 1-3 output channels, 256-levels of brightness. This device is excellent for connecting to light consoles and analog devices, or lighting & building lamp control systems and small stand-alone DMX control systems.

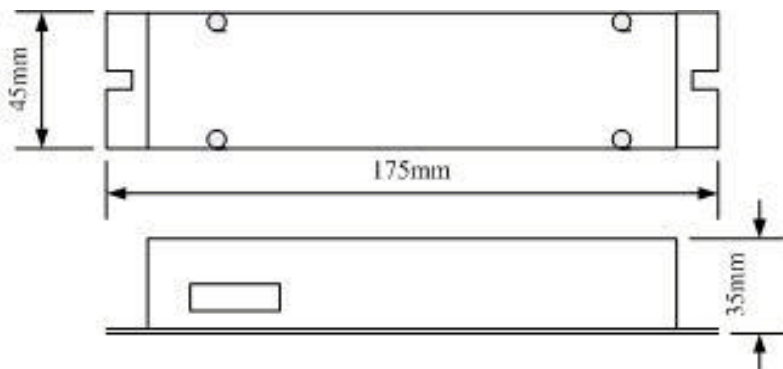
FEATURES

- ? Meets DMX512/1990
- ? 256-level brightness, full-color control
- ? 3 output CH., can drive 5A (Each Channel.)
- ? With control system, can express achieve your desired effect
- ? Can drive 1-3 channel of each lamp
- ? Can set the DMX address via DIP switch
- ? Modularizing, can be combined with other LED DMX drivers

TECH. CHARACTERISTICS

Decode CH.:	1~3
Input Signal:	DMX-512/1990 digital signal
Output Signal:	0~24V PWM signal, can drive 5A (Each CH.)
Power Supply:	DC, +12~24V
Power Dis.:	<1W
Power Output:	180W@12V / 360W@24V
Operating Temp.:	0C~70
Size:	175(mm)*45(mm)*35(mm),
Weight:	= 300g

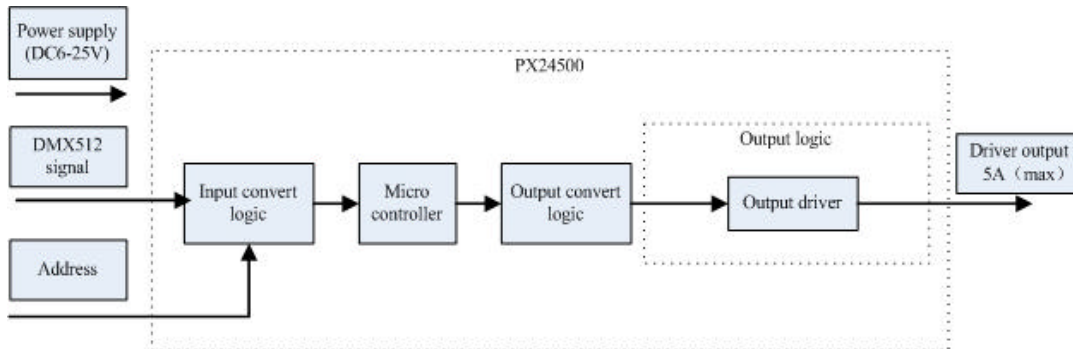
DIMENSION



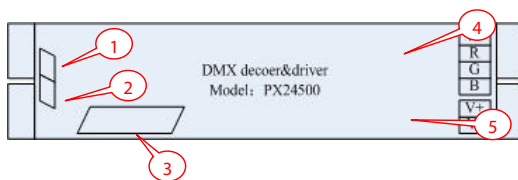
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Internal Block Diagram



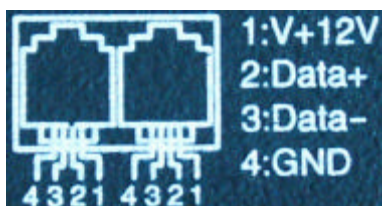
Appearance



- (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



Address setting interface

Please find the detailed instruction for Address setting at Page 5.

Power input interface

DC 12-24VDC input, supply power for decoder and the LED it will power.

Driver output interface

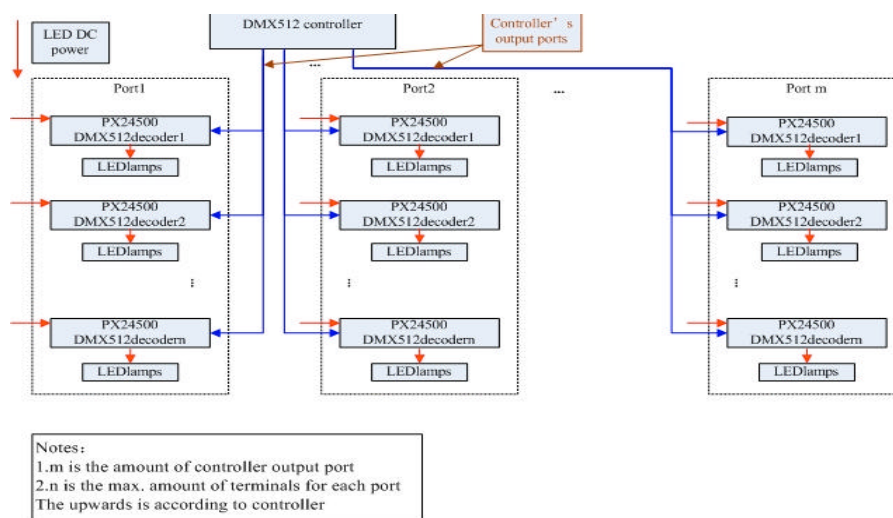
Common anode, V+(12VDC+) and R,G,B interface can drive kinds of many different RGB produces or RGB modules, Can regulate output current according to the actual load.

NOTES:

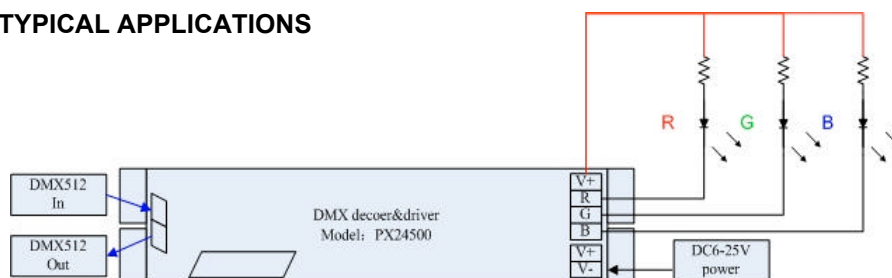
Connect the anode and RGB wire of common anode RGB module to the output interface of decoder directly; Connect the anode wire(12v+) of RGB product to V+ on decoder, and connect the cathode wire to one of RGB terminals according to the LED's color; Connect several colors single-color module to one decoder, please connect all of their anode(12v+) wires to V+ pin on decoder.

How To Use

The PX24500 is controlled by a DMX-512 Controller or Console. The main driver is a 512 DMX transmitter that feeds the PX24500 to control/dim three separate outputs or RGB. Below is a typical wiring diagram. Make sure the final device in the DMX Universe is properly terminated for proper operation.



TYPICAL APPLICATIONS



Connecting 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 PX24500. Connect a DMX signal terminator at the end for proper operation.

Calculate the power

This product has a wide input/output voltage(DC 12-24VDC),it's rating current is 5A total, so the rating power is different with different input voltages, for example:

Rating power in 12V: $12V \times 5A \times 3ch = 180 W$

Rating power in 24V: $24V \times 5A \times 3ch = 360 W$

The contents about the product install and usage

Principle:

- (1)The input voltage should be limited in rated range.
- (2)Do not use it by over load.
- (3)Installed in suited environment.
 - ▶ A.The driver can not be setting in high temperature or wet conditions
 - ▶ B.We recommend three ways to take away the heat as follows
 - Bared in moving air
 - Put in a big enough space for taking away the heat
 - ▶ Fixed on big metalline board, and make sure they are contacted well

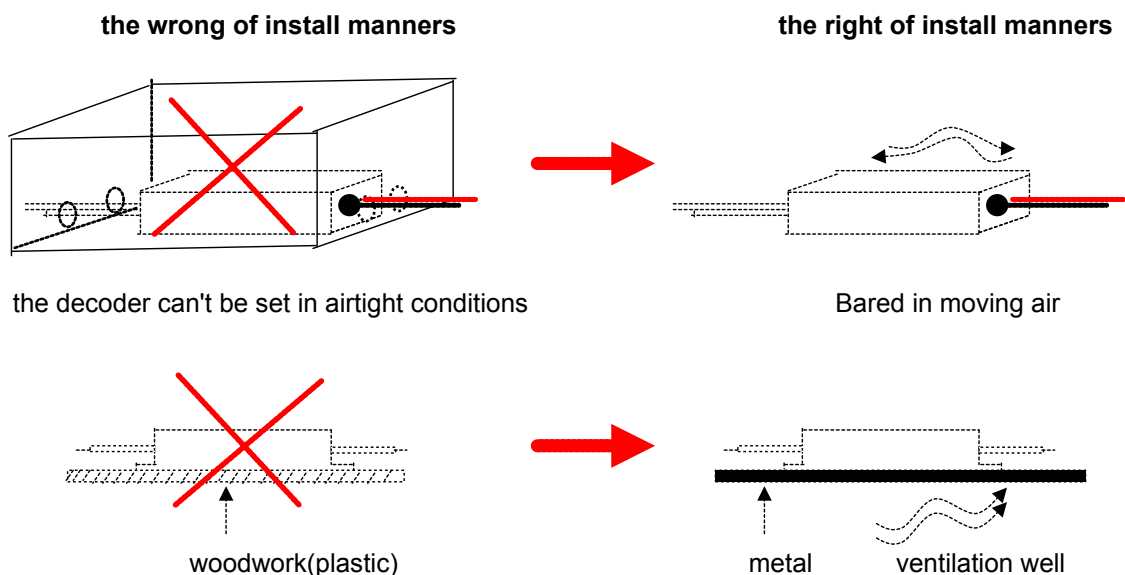
The contents about install and usage

- (1)When work with controller, put the controller close to to avoid the signal become weak.
- (2)Recommend to use the STP with the characteristic impedance of 120 ohm
- (3)The signal line should be one bus, and the signal line pass in and out the decoder ports directly
- (4)Make sure the signal line connector and the decoder's signal port are well connect
- (5)Add a signal terminator at the end of the signal line
- (6)The decoder should be closed to the lamps. If the lamps is over 5 meters, the ones follow shoule be joined at the decoder's out port again
- (7)Adopt thicker power cable with good conductivity
- (8)If one decoder take several lamps in series , make sure the lamps's connectors are firmly connected
- (9)Signal line should be far away with the 110/220V AC cable

Install Cases:

(in attached drawing,the unconscionable of install cases were labeled by "X")

(1)The bad install manners of take away the heat and the right ways:



DMX DECODER&DRIVER SERIES

PX24500

The contents about the product install and usage

Principle:

- (1)The input voltage should be limited in rated range (120v-240VAC).
- (2)Do not overload the transformers.
- (3)Installed in suited environment.
 - A.The driver can not be setting in high temperature or damp conditions
 - B.We recommend three ways to take away the heat as follows
 - ▶ Bared in moving air
 - ▶ Put in a big enough space for taking away the heat
 - ▶ Fixed on big metalline board, and make sure they are contacted well

The contents about install and usage

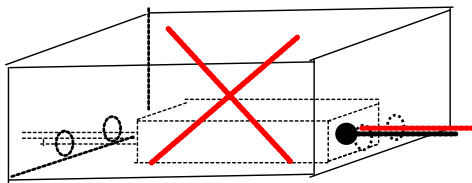
- (1)When working with controller, put the controller close to the project avoid the signal become weak.
- (2)Recommend to use the STP with the characteristic impedance of 120 ohm
- (3)The signal line should be one bus, and the signal line pass in/out the decoder ports directly
- (4)Make sure the signal line connector and the decoder's signal port are well connect
- (5)Add a signal terminator at the end of the signal line!
- (6)The decoder should be closed to the lamps. If the lamps is over 5 meters, the ones follow should be joined at a second decoder's out port again
- (7)Adopt thicker power cable with good conductivity
- (8)If one decoder take several lamps in series , make sure the lamps's connectors are firmly connected
- (9)Do Not run the Signal cable near the Power Feed cables Line should be far away with the 110/220V AC cable

Install Cases:

(in attached drawing,avoid installations labeled by the ("X"))

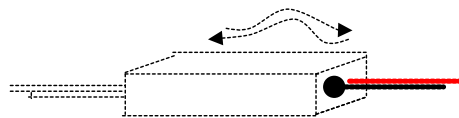
(1)Proper installations help take away the heat and the right ways

the wrong of install manners

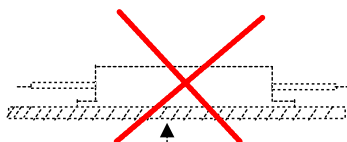


the decoder can't be set in airtight conditions

the right of install manners



Bared in moving air



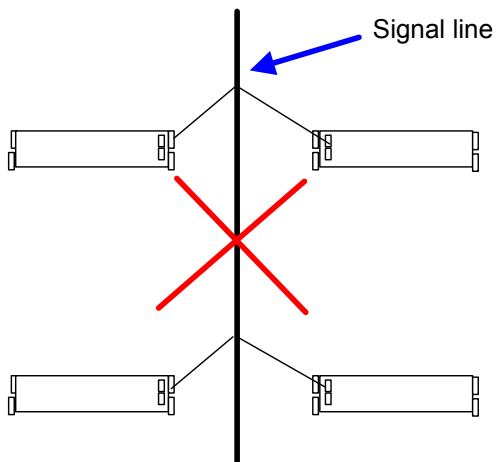
woodwork(plastic)



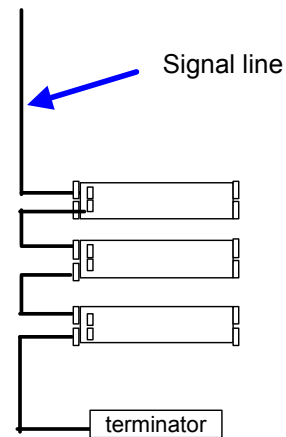
metal

ventilation well

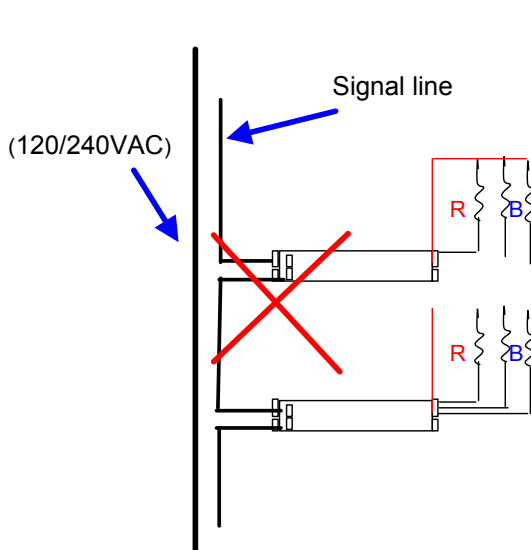
(2) The install manners with weak signal and the right ways :



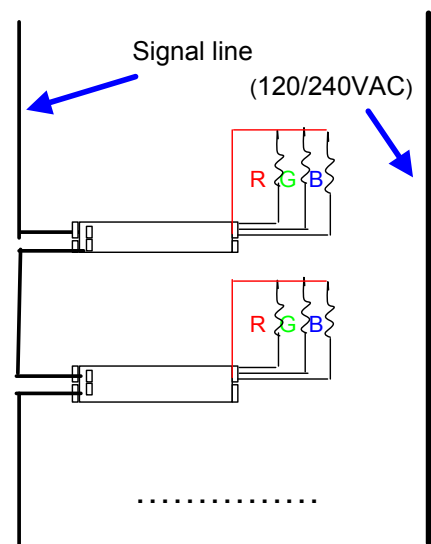
the signal line was linked side by splitting



The signal line should be one bus and add a signal terminator at the end of it



(Parallel) Signal line was closed to the 120/240VAC



Signal line should be far away with the 120/240VAC



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Troubleshooting Guide

Problem	Reason	Solution
1.All the lamps were off	The power wire not connected well or no output (12vDC)	Reconnect the power wire or change the power supply
	Lamp's power wire not connected well	Reconnect the power wire
	Signal terminal not connected well or the signal wires were reversed	Reconnect the signal cable
	Line is too long, for over 300m	Add terminator or amplifier
2.One or several lamps not change	Signal terminal not connected well or the signal wires were reversed	Reconnect the signal cable
	Line is too long, for over 300m	Add terminator or amplifier
3.Some color was off	Wire of this color not connected well	Reconnect the power wire
4.Wrong color was shining in change	Power wire were reverse	Reconnect the power wire
	Decoder address was wrong	Change the address(refer to the address table)
5.Irregular flicker	Signal terminal not connected well	Reconnect the signal terminal
	Line is too long, for over 300m	Add terminator or amplifier

If still can not figure out, please contact our technical support eastern business hours at 1.877.877.2340.