

**PX24500** Dmx constant voltage decoder

**SUMMARIZE**

Thank you for using PX series DMX512 decoder. With advanced micro-computer control technology, PX series convert the widely used DMX512 /1990 signal to analog signal. Can choose 1-3 output channel, 256-level brightness control. For connecting of light console and analog device, or lighting & building lamps controlling.

**FEATURES**

- ◆ Meets DMX512/1990
- ◆ 256-level brightness, full-color control
- ◆ 3 output CH, can drive 5A (Each CH.)
- ◆ With control system, can express perfect effect
- ◆ Can drive 1-3 channel of each lamp
- ◆ Can set the DMX address freely
- ◆ High interference resistant, short circuit and over-current protect, self-recovery function available
- ◆ With RDM remote management protocol, it can be used for parameter browsing and setting, DMX address modification, device identification and other operations through RDM master
- ◆ Can be custom-made

**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: <360W(24V); <180W(12V)  
 working temperature: 0-70 C  
 Equipment dimensions: 177(mm)\*41.5(mm)\*33.5(mm)  
 packing measurement: 180(mm)\*43(mm)\*38(mm)  
 Net Weight: 242.5g  
 Gross weight: 263g

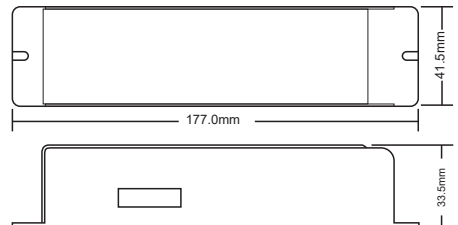
**Appearance**



- (1) DMX signal input interface (RJ45)
- (2) DMX signal output interface (RJ45)
- (3) Address setting interface
- (4) Driver output interface
- (5) Power input interface

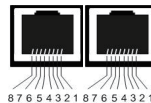


**DIMENSION**



**Interface Introduction**

◆ **DMX signal interface**



- 1: DATA+
- 2: DATA-
- 3-6: NC
- 7-8: GND

◆ **Address setting interface**

How to use See "DMX series of addresses dial code table"

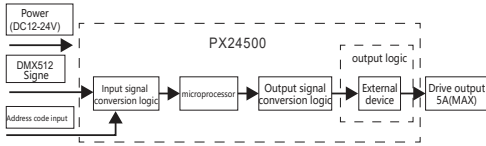
◆ **Power input interface**

DC 12-24V input, supply power for decoder and the lamps it takes.

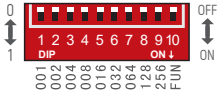
◆ **Driver output interface**

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

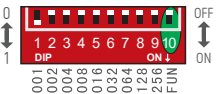
**Internal Block Diagram**



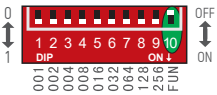
**The Setting Of The Dmx First Address:**



RDM mode: All dip switches 1 to 10 are turned up



DMX mode: FUN = OFF (when the 10th pull-out switch is up), The DMX address can now be set by the 1-9 dial switch



Self-test mode: FUN = OFF (address 511 is self-test mode, output RGBW gradient)

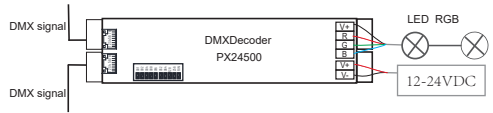
**DIP Switch Setting**

	DIP1	DIP2	DIP3	DIP4	DIP5	DIP6	DIP7	DIP8	DIP9	DIP10
OFF	0	0	0	0	0	0	0	0	0	NA
ON	1	2	4	8	16	32	64	128	256	FUN

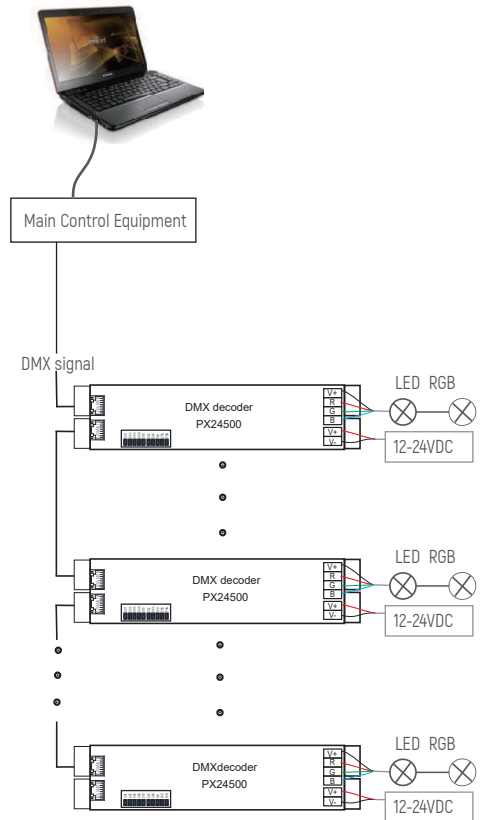
DIP1-9: sets the address of the first channel of DMX decoder, and the corresponding table of dialing switch shows that the sum of numbers is the first channel address of DMX decoder. The valid address in DMX mode is  $1 \leq 511$ , (address 511 is self-test mode, output RGBW gradient).  
 When the address is set to 0, the default is RDM mode.  
 DIP10 : FUN represents the end resistance of 120 ohms.

1. DMX signal cable is divided into positive and negative ends by using super five kinds of twisted pair (network cable) signal. Special attention should be paid to polarity when pressing the plug of DMX signal cable. The output signal of DMX512 controller is positive and negative, and the signal is connected to the input interface of PX24500.
2. At the end of the whole line, a DMX signal Terminator should be connected (just dial the 10th bit of the PX24500 dial switch)

Connect the anode and RGB wire of common anode RGB module wire for DMX signal is STP, the DMX signal has positive and negative signal. RGB pin according to the LED's color; Connect several colors single-color module to one decoder, please pay attention to the polarity while soldering. Connect the positive signal, negative connect their anode wires to V+ pin on decoder.



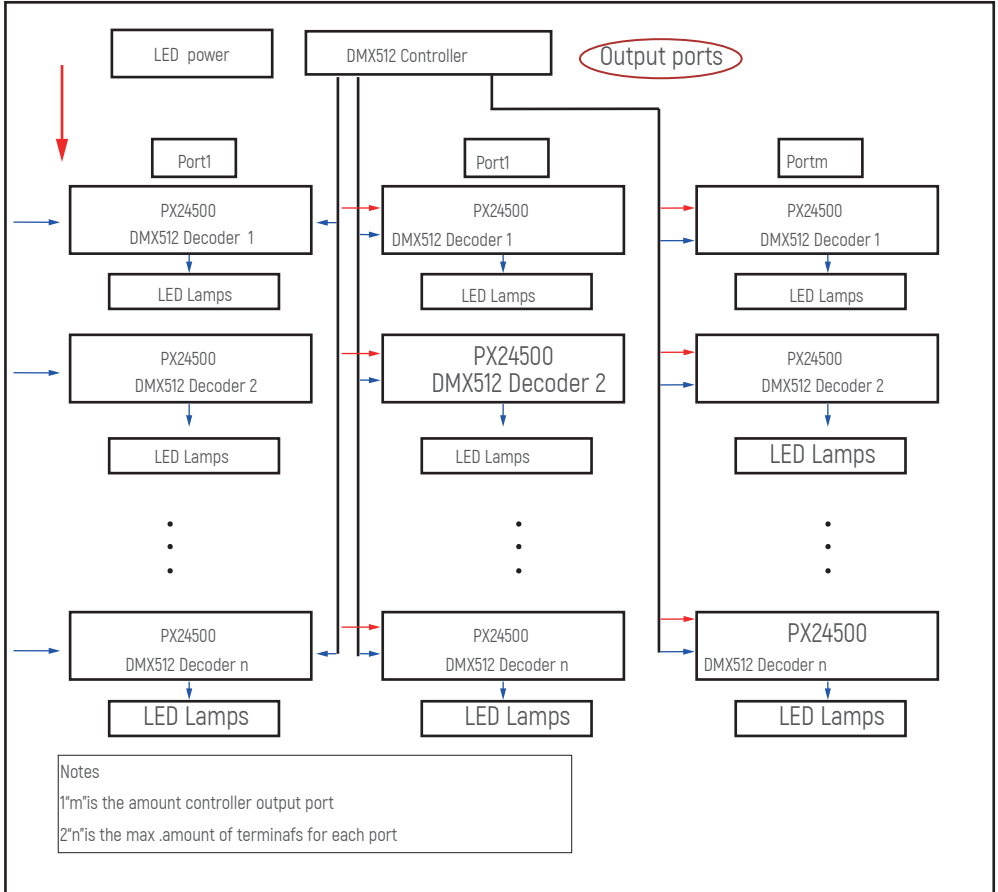
**System connection diagram**



When the DMX decoder is too many (more than 32 units) or the signal line exceeds 30m, the signal amplifier needs to be added, and the signal amplification cannot exceed 5 consecutive times.

**How To Use**

PX24500 is controlled by DMX-512 digital signal. The frontage is DMX512 transmitter, 1V+4 take EC-DMX512 for example, to control 0-24V analog devices. We suppose to drive LED DMX decoder & drive to introduce it. The connecting is below:



# PX24500

DMX恒压解码器

## 概述

欢迎使用PX系列 DMX512解码驱动器。PX系列采用先进的微电脑控制技术,把国际上广泛采用的DMX-512/1990标准数码控制信号转换成模拟控制信号。可选择1~3路输出通道,每通道可实现256级控制级别。可用于电脑数码输出调光台与模拟硅箱的连接,建筑和灯饰用LED灯具的控制的使用场合。

## 产品特点

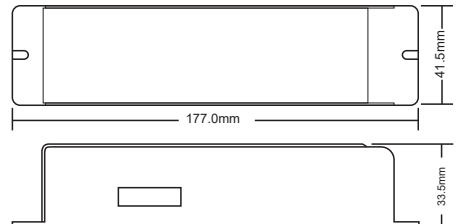
- ◆ 符合DMX512国际标准协议
- ◆ 256级灰度、全彩驱动控制
- ◆ 3路输出通道,单通道最大5安培驱动输出
- ◆ 配合控制系统,可实现丰富的变化效果
- ◆ 具有灯具颜色选择机制,可控制具有1~3种基本颜色的灯具
- ◆ 可自由设定灯具的DMX地址
- ◆ 良好的抗干扰性,过流,短路保护,自恢复功能
- ◆ 具有RDM远程管理协议,通过RDM主控可对其进行参数浏览与设置、DMX地址修改、设备识别等操作
- ◆ 可依客户需求定制



## 技术参数

解码通道:	3路
控制信号输入:	DMX-512/1990 标准数码控制信号
输出信号:	0~24V 最大5安培隔离驱动输出
供电电源:	直流电源, 12~24V
空载时功率消耗:	<1W
功率输出:	<360W(24V);<180W(12V)
工作温度:	0~70°C
设备尺寸:	177(mm)*41.5(mm)*33.5(mm), 可依客户要求定制
包装尺寸:	180(mm)*43(mm)*38(mm)
净重量:	242.5g
毛重量:	263g

## 外观尺寸



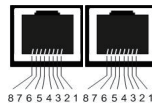
## 设备外观



- (1) DMX信号输入接口(RJ45)
- (2) DMX信号输出接口(RJ45)
- (3) 地址码设置开关接口
- (4) 驱动输出接口
- (5) 电源输入接口

## 接口说明

### ◆ DMX信号接口



- 1: DATA+
- 2: DATA-

- 3-6: NC
- 7-8: GND

### ◆ 地址码设置开关接口

使用方法见“DMX系列地址拨码表”

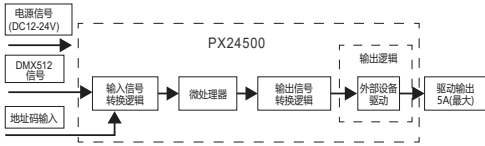
### ◆ 电源输入接口

直流12~24V输入,为解码器本身和解码器所带灯具供电

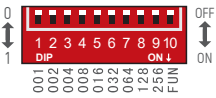
### ◆ 驱动输出接口

共阳驱动,具有一个V+接口和3通道R,G,B输出接口,可接各种全彩模组和单色模组自动根据灯具模组负载调整输出电流

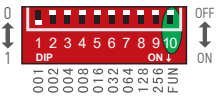
结构图



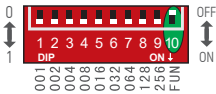
DMX首地址的设置:



RDM模式: 拨码开关1-10全部拨向上时



DMX模式: FUN=OFF (第10位拨码开关拨向上时), 此时可通过1-9拨码开关设置DMX地址



自测模式: FUN=OFF(地址511为自检模式, 输出RGB渐变)

拨码开关配置

	DIP1	DIP2	DIP3	DIP4	DIP5	DIP6	DIP7	DIP8	DIP9	DIP10
OFF	0	0	0	0	0	0	0	0	0	NA
ON	1	2	4	8	16	32	64	128	256	FUN

DIP1~9: 设置DMX解码器的第一个通道的地址, 拨码开关对应表格显示数字总和就是DMX解码器的第一通道地址。DMX模式下的有效地址为1-511, (地址511为自检模式, 输出RGB渐变)。

当地址设置为0时, 默认为RDM模式。

DIP10: FUN代表是120欧姆的终结电阻。

1、DMX信号电缆采用超五类双绞线(网线)DMX信号分正负端,在压接DMX信号电缆插头时要特别注意极性,将DMX512控制器输出的信号正、信号负、信号地和PX24500的输入接口对应连接。

2、整个线路结束时,应连接一个DMX信号终结器(将PX24500拨码开关第10位拨下即可)

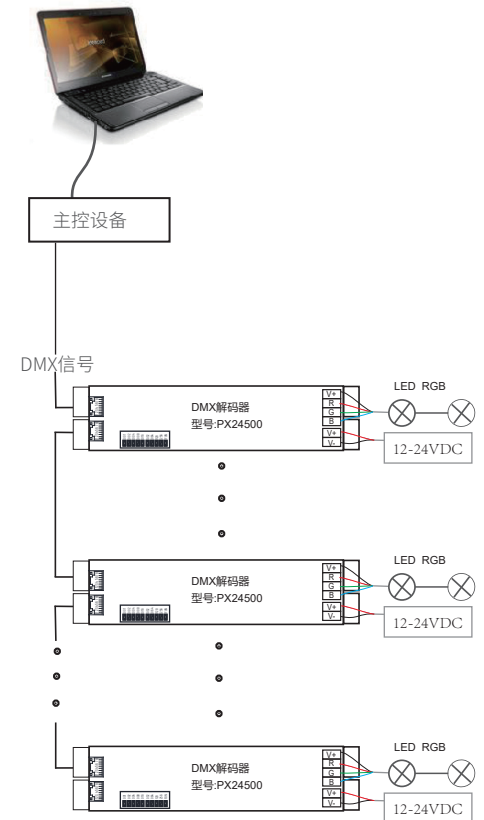
注:

共阳连接的全彩模组可直接将正线和R,G,B控制线接至解码器的输出接口对应脚位上;单色模组可将正线接至解码器的输出接口的V+脚上,负线根据该模块的颜色接至解码器的输出接口R,G,B某一脚位上;几种颜色的单色模组接到同一个解码器上,须将它们的正线都接到解码器的输出接口的V+端口。

连接示意图



系统连接图



当DMX解码器过多(超过32台)或信号线超过30m,需加信号放大器,信号放大不能连续超过5次。

使用说明

PX24500解码驱动器由DMX-512 数码控制方式控制。其前端接DMX512信号发射设备，此处以EC-DMX512为例，后端可接0~24V模拟信号设备，本说明均以驱动LED介绍。

控制信号连接方法如下：

