

Constant Voltage 5 Channel DMX/RDM Decoder

- Standard DMX/RDM interfaces; Set addresses via the digital display and buttons.
- RDM protocol; Browse parameters and change DMX addresses via a RDM master or via the mobile APP .
- DMX decoder mode and DMX control mode are switchable, In the control mode, other decoders can be controlled by selecting preset lighting effects output
- PWM frequency options: 300/600/1200/1500/1800/2400/3600/7200/10800/14400/18000Hz.
- 16bit (65536 levels)/8bit (256 levels) gray scale optional.
- Linear and logarithmic dimming curve optional.
- DIM/CT/RGB/RGBW/RGBCW mode optional (1/2/3/4/5 DMX channel output).
- Provide 10 lighting effects, 8 speed levels of dynamic modes, and 255 brightness levels.
- Set screen timeout, LCD screen always on, and screen turning off after 30s of inactivity.
- Short-circuit, over-temperature, over-current, and reverse polarity protection, with automatic recovery.
- D5A has green terminal DMX interfaces, D5B has RJ45 DMX interfaces.



16bit

RoHS

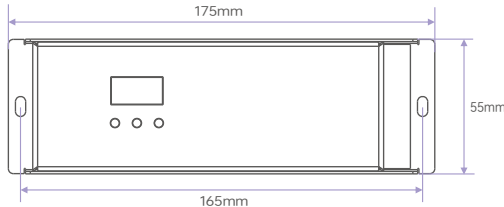


Product Parameters

Input Signal	DMX512, RDM	Working Temp.	-25 C-55 C
Input Voltage	12-48V \equiv	Safety regulations and Electromagnetic specifications	CE,EN 55015: 2019/A11: 2020, EN 61547-1: 2021,FCC Part 15 Class B
Output Type	Constant Voltage	Dimensions	L175*W55*H30mm
Output Current	8A*3CH 6A*4CH 5A*5CH Max.25A	Package Size	L188*W61*H40mm
Output Voltage	5*(12-48V \equiv)	Weight(G.W.)	370g±5g
Output Power	300W@12V 600W@24V 900W@36V 1200W@48V	Protection	Short-circuit, over-temperature, over-current, and reverse polarity protection, with automatic recovery.
Dimming Range	0-100%		

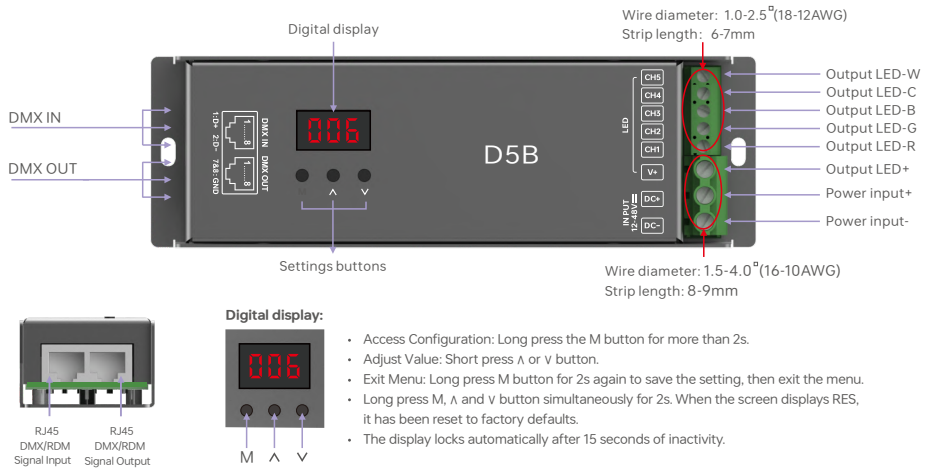
Product Size

Unit: mm



Main Component Description





Button Operations



DMX Decoder Mode

Long press M and A button simultaneously. When the screen displays "L-1", it enters the DMX decoder mode. Long press M button for 2s to enter the menu.

- DMX address settings:** Press A or V button to set the DMX address. DMX address range: 001-512.
- Bit Depth:** Short press M button to switch the menu to "r". Press A or V button to select bit depth and the third value on the screen will display 1 or 2. Options: r-1 (8bit), r-2 (16bit).
- PWM frequency:** Short press M button to switch the menu to "F". Press A or V button to select PWM frequency and the third value on the screen will display 0 or A. Options: F-0 (300Hz), F-1 (600Hz), F-2 (1200Hz), F-3 (1500Hz), F-4 (1800Hz, default option), F-5 (2400Hz), F-6 (3600Hz), F-7 (7200Hz), F-8 (10800Hz), F-9 (14400Hz), F-A (18000Hz).
- Time for fading to dim level:** Short press M button to switch the menu to "d". Press A or V button to select the fading time and the third value on the screen will display 1 or 2. Options: d-1 (Smooth dimming), d-2 (Standard dimming).
- Dimming mode:** Press the M button briefly to switch the menu to 'C'. Use the A or V buttons to select. The third digital display will show 1-5. Options are as follows: C-1 (All 5 outputs are Channel 1), C-2 (Channels 1 and 3 are Channel 1; Channels 2, 4, and 5 are Channel 2), C-3 (Channel 1 is Channel 1; Channel 2 is Channel 2; Channels 3, 4, and 5 are Channel 3), C-4 (Channel 1 is Channel 1; Channel 2 is Channel 2; Channel 3 is Channel 3; Channels 4 and 5 are Channel 4), C-5 (Each of the 5 outputs corresponds to its respective channel) (default).
- Screen timeout:** Short press M button to switch the menu to "n". Press A or V button to select screen timeout and the third value on the screen will display 1 or 2. Options: n-1 (Always on display), n-2 (After 30 seconds of inactivity).



DMX Control Mode

Long press M and V button simultaneously. When the screen displays "L-2", it enters the control mode. Long press M button for 2s to enter the menu.

Long press M and V button simultaneously. When the screen displays "L-2", it enters the control mode. Long press M button for 2s to enter the menu.

- Lighting effects:** Short press M button to switch the menu to "E". Press A or V button to select the lighting effect and the third value on the screen will display 1, 2, 3, 4, 5, 6, 7, 8, 9 or A. Options: E-1 (No lighting effect), E-2 (Red), E-3 (Green), E-4 (Blue), E-5 (Yellow), E-6 (Purple), E-7 (Cyan), E-8 (White), E-9 (7-color jumping), E-A (7-color gradient).
- Speed:** Short press M button to switch the menu to "S". Press A or V button to select speed and the third value on the screen will display 1, 2, 3, 4, 5, 6, 7 or 8. Default: S-5 Options: S-1 / S-2 ····· S-7 / S-8 (Speed levels, speed increases one by one).
- Brightness:** Short press M button to switch the menu to "B". Press A or V button to select the brightness level and the second and the third value on the screen will display 00-FF, B00-BFF, 255 levels, default maximum level is 256. Options: B00 / B01 ····· BFF. (Brightness levels, brightness increases one by one).
- Screen timeout:** Short press M button to switch the menu to "n". Press A or V button to select screen timeout and the third value on the screen will display 1 or 2. Options: n-1 (Always on display), n-2 (After 30 seconds of inactivity).

Fault code: F-0: Over-temperature protection
F-1: Over-temperature warning
F-2: Short circuit/over-current protection

APP Operations

1. D5A and D5B can work with a RDM-compliant address editor.

It is recommended to use the LTECH RDM editor (Model:WiFi-RDM01). Through the APP, set the screen timeout, unicast/multicast, and other parameters for D5A and D5B. For detailed operations, please refer to the WiFi-RDM01 manual.



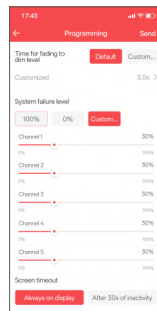
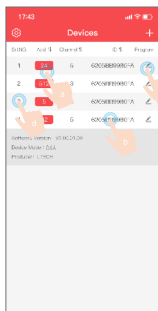
APP

* The WiFi-RDM01 editor and the constant voltage decoder are sold separately.

2. Select the working mode through the APP.

DMX decoder mode: Set the dimming curve, bit depth, dimming mode, dimming range, etc.

Control mode: Set lighting effects, speed, brightness, etc.

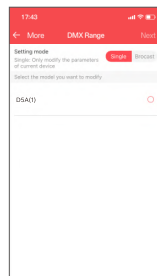
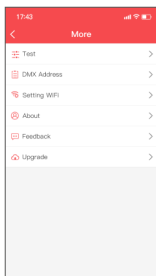


a: Click "Add", edit the address in corresponding box.

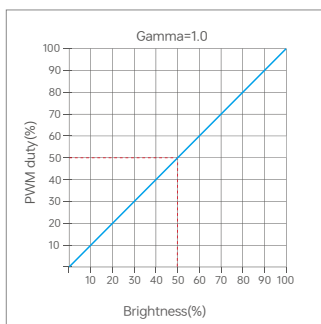
b: Click "ID", get more product details.

c: Click "No.", enter edited interface.

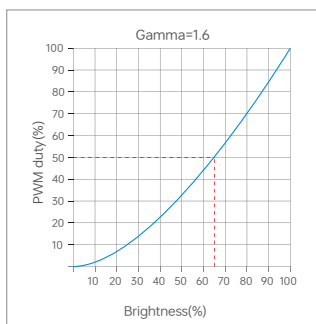
d: Click "No.", issue the recognizing command.



Dimming Curve setting



Linear dimming curve



Logarithmic dimming curve

Address Setting Table

Address Channel \ Mode	C-1(Dimming)	C-2(CT/CT2)	C-3(RGB)	C-4(RGBW)	C-5(RGBCW)
Channel 1	001	001	001	001	001
Channel 2	001	002	002	002	002
Channel 3	001	001	003	003	003
Channel 4	001	002	003	004	004
Channel 5	001	002	003	004	005

*C-2 CT mode: The output of CW is constant power; Address 001 is to adjust the brightness; Address 002 is to adjust the color temperature.

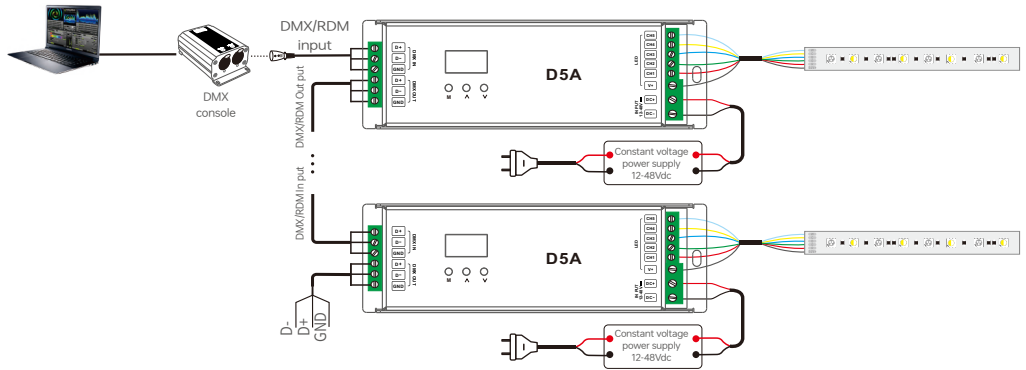
Load Parameters

At different PWM frequencies and different voltages, the max. load current and the total power of each channel vary. Before you do the wiring, please strictly follow the load parameters in the table below to operate.

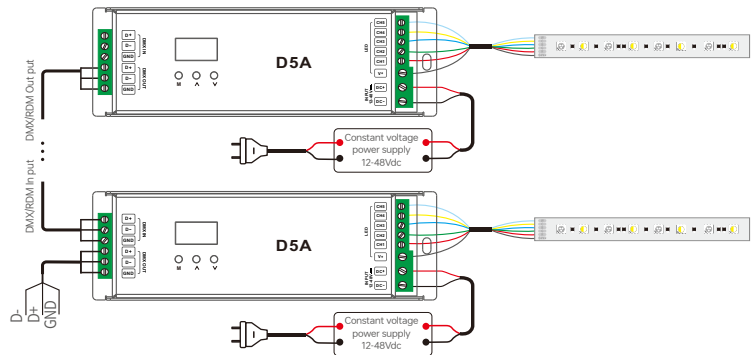
Max. current/ power Voltage \ Frequency	300Hz (F=0)	600Hz (F=1)	1.2kHz (F=2)	1.5kHz (F=3)	1.8kHz (F=4)	2.4kHz (F=5)
12V	5A×5CH/300W 6A×4CH/288W 8A×3CH/288W	5A×5CH/300W 6A×4CH/288W 8A×3CH/288W	5A×5CH/300W 6A×4CH/288W 8A×3CH/288W	5A×5CH/300W 6A×4CH/288W 8A×3CH/288W	5A×5CH/300W	5A×5CH/300W
24V	5A×5CH/600W 6A×4CH/576W 8A×3CH/576W	5A×5CH/600W 6A×4CH/576W 8A×3CH/576W	5A×5CH/600W 6A×4CH/576W 8A×3CH/576W	5A×5CH/600W 6A×4CH/576W 8A×3CH/576W	5A×5CH/600W	5A×5CH/600W
36V	5A×5CH/900W	5A×5CH/900W	5A×5CH/900W	5A×5CH/900W	5A×5CH/900W	4.5A×5CH/810W
48V	5A×5CH/1200W	5A×5CH/1200W	5A×5CH/1200W	5A×5CH/1200W	5A×5CH/1200W	4A×5CH/960W
Max. current/ power Voltage \ Frequency	3.6kHz (F=6)	7.2kHz (F=7)	10.8kHz (F=8)	14.4kHz (F=9)	18kHz (F=A)	/
12V	5A×5CH/300W	5A×5CH/300W	4.5A×5CH/270W	4A×5CH/240W	3A×5CH/180W	
24V	4A×5CH/480W	2.5A×5CH/360W	2.5A×5CH/300W	2A×5CH/240W	1.5A×5CH/180W	
36V	4A×5CH/720W	3A×5CH/540W	2A×5CH/360W	2A×5CH/360W	1A×5CH/180W	
48V	3A×5CH/720W	2A×5CH/480W	1.5A×5CH/360W	1.5A×5CH/360W	1A×5CH/240W	

D5A Wiring Diagram

DMX decoder mode

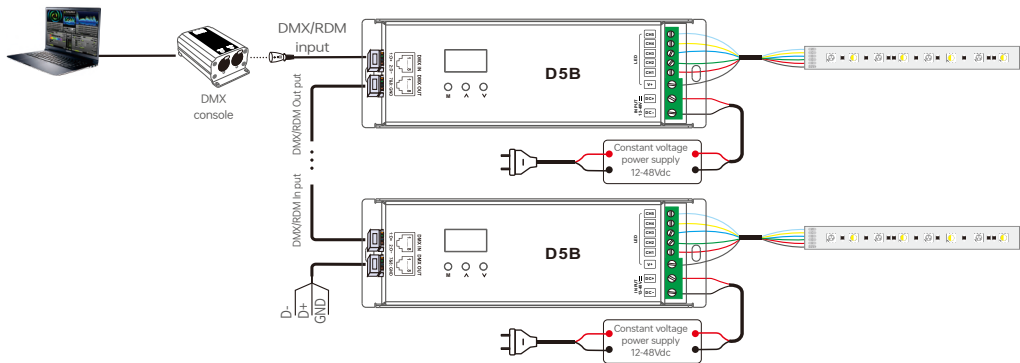


DMX control mode

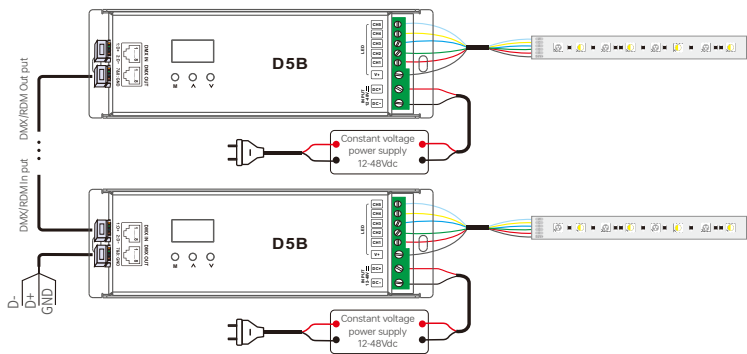


D5B Wiring Diagram

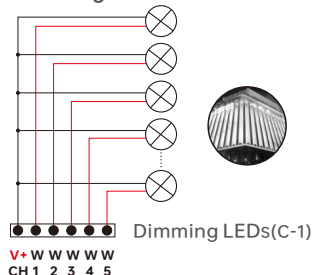
DMX decoder mode



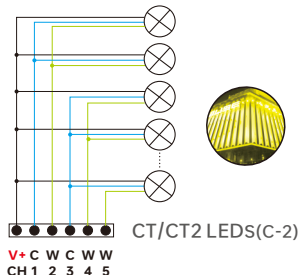
DMX control mode



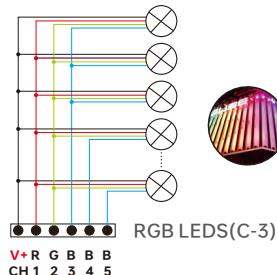
Dimming mode



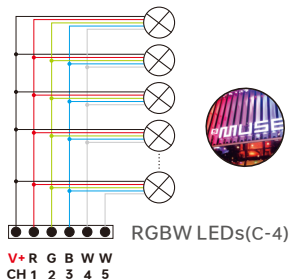
CT mode



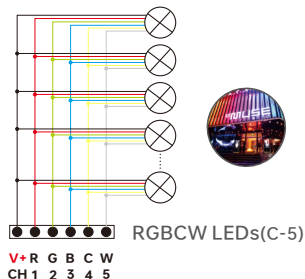
RGB mode



RGBW mode



RGBCW mode



- * When more than 32 DMX decoders are connected, DMX signal amplifiers are needed and signal amplification should not be more than 5 times continuously. If you need to modify the parameter settings of connected DMX/RDM decoders that exceed 32, you can add 1 RDM signal amplifier. Or you can add 1-5 DMX signal amplifiers after completing the parameter settings.
- * If the recoil effect occurs because of long signal line or poor quality wires, please try to connect a 0.25W 90-120Ω terminal resistor at the end of each line.

Attentions

- Product installation and commissioning should be done by a qualified professional.
- LITECH products are not lightningproof non-waterproof (special models excepted). Please avoid the sun and rain. When installed outdoors, please ensure they are mounted in a water proof enclosure or in an area equipped with lightning protection devices.
- Good heat dissipation will extend the life the product. Please install the product in a environment with good ventilation.
- When you install this product, please avoid being near a large area of metal objects or stacking them to prevent signal interference.
- Please keep the product away from a intense magnetic field, a high pressure area or a place where lightning is easy to occur.
- Please check whether the working voltage used complies with the parameter requirements of the product.
- Before you power on the product, please make sure all the wiring is correct in case of incorrect connection that may cause a short circuit and damage the components, or trigger a accident.
- If a fault occurs, please do not attempt to fix the product by yourself. If you have any question, please contact the supplier.
- * This manual is subject to changes without further notice. Product functions depend on the goods. Please feel free to contact our official distributors if you have any question.

Warranty Agreement

Warranty periods from the date of delivery : 5 years.

Free repair or replacement services for quality problems are provided within warranty periods.

Warranty exclusions below:

Following conditions are not within the guarantee range of free repairing or replacement services:

- Beyond warranty periods.
 - Any artificial damage caused by high voltage, overload, or improper operations.
 - Products with severe physical damage.
 - Damage caused by natural disasters and force majeure.
 - Warranty labels and barcodes have been damaged.
 - No any contract signed by LTECH.
1. Repair or replacement provided is the only remedy for customers. LTECH is not liable for any incidental or consequential damage unless it is within the law.
 2. LTECH has the right to amend or adjust the terms of this warranty, and release in written form shall prevail.

5通道DMX/RDM恒压解码器

- 标准的DMX/RDM接口，使用数码管和轻触按键设置参数；
- 可通过RDM主控或手机APP进行参数修改，免高空作业；
- 可切换DMX解码模式/DMX主控模式，主控模式下可通过选择预设灯光效果输出控制其他解码器；
- 可设置300/600/1200/1500/1800/2400/3600/7200/10800/14400/18000Hz PWM频率；
- 16bit(65536级)/8bit(256级)灰度级可选；
- 可设置线性、对数调光曲线；
- 可设置DIM/CT /RGB /RGBW /RGBCW模式(1/2/3/4/5DMX通道输出)；
- 可设置10种灯光效果、8档动态模式速度、255个亮度等级；
- 支持屏显时间设置，数码管常亮与30s内无操作将熄灭；
- 短路、过温、过流、防反接保护，可自行恢复；
- D5A具有绿色端子DMX信号端口，D5B具有RJ45 DMX信号端口。



CE

FC

RDM
DMX

16bit

RoHS



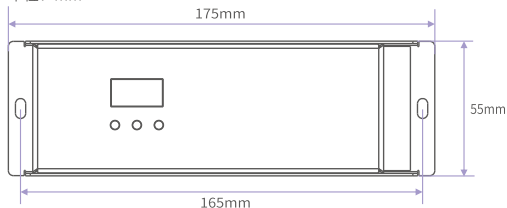
技术参数

输入信号	DMX512, RDM
输入电压	12-48V $\overline{\text{V}}$
输出类型	恒压
输出电流	8A×3CH 6A×4CH 5A×5CH Max.25A
输出电压	5×(12-48V $\overline{\text{V}}$)
输出功率	300W@12V 600W@24V 900W@36V 1200W@48V
调光范围	0-100%

工作温度	-25°C-55°C
安规和电磁规格	CE, EN 55015: 2019/A11: 2020, EN 61547-1: 2021, FCC Part 15 Class B
产品尺寸	L175×W55×H30mm
包装尺寸	L188×W61×H40mm
重量(毛重)	370克±5克
保护	短路、过温、过流、防反接保护，可自行恢复

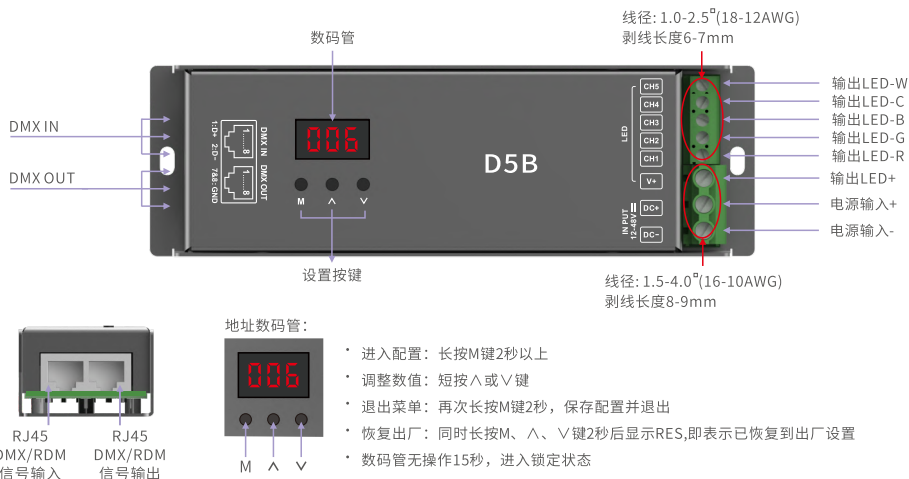
产品尺寸

单位: mm



产品部件图





按键操作

DMX解码模式

同时长按M和^键, 数码管显示“L-1”时, 进入DMX模式解码长按M键2秒即可进入菜单

- DMX地址设置: 按^或V键进行选择, 进行DMX地址设置范围: 1~512
- 位深度: 短按M键, 将菜单切换到“r”按^或V键进行选择, 第三个数码管显示1或2, 可选项: r-1 (8bit) 、r-2 (16bit)
- PWM频率: 短按M键, 将菜单切换到“F”按^或V键进行选择, 第三个数码管显示0-A, 可选项: F-0 (300Hz) 、F-1 (600Hz) 、F-2 (1200Hz) 、F-3 (1500Hz) 、F-4 (1800Hz) (默认) 、F-5 (2400Hz) 、F-6 (3600Hz) 、F-7 (7200Hz) 、F-8 (10800Hz) 、F-9 (14400Hz) 、F-A (18000Hz)
- 调光渐变时间: 短按M键, 将菜单切换到“d”按^或V键进行选择, 第三个数码管显示1或2, 可选项: d-1 (平滑) 、d-2 (标准)
- 调光模式: 短按M键, 将菜单切换到“C”按^或V键进行选择, 第三个数码管显示1~5, 可选项: C-1 (5路输出均为通道1) 、C-2 (1、3路输出均为通道1、2、4、5路输出均为通道2) C-3 (1路输出为通道1, 2路输出为通道2, 3路、4路和5路输出均为通道3) 、C-4 (1路输出为通道1, 2路输出为通道2, 3路输出为通道3, 4路和5路输出均为通道4路) 、C-5 (5路输出分别为对应通道) (默认)
- 屏显时间: 短按M键, 将菜单切换到“n”按^或V键进行选择, 第三个数码管显示1或2, 可选项: n-1 (数码管常亮) 、n-2 (30s内无操作将熄灭)

DMX主控模式

同时长按M和V键, 数码管显示“L-2”时, 进入DMX主控模式长按M键2秒即可进入菜单

- 灯光效果: 短按M键, 将菜单切换到“E”按^或V键进行选择, 第三个数码管显示1~9或A, 可选项: E-1 (无) E-2 (红色) E-3 (绿色) E-4 (蓝色) E-5 (黄色) E-6 (紫色) E-7 (青色) E-8 (白色) E-9 (七色跳变) E-A (七色渐变)
- 速度: 短按M键, 将菜单切换到“S”按^或V键进行选择, 第三个数码管显示1~8默认值: S-5, 可选项: S-1/S-2...S-7/S-8(速度等级, 依次递增)
- 亮度: 短按M键, 将菜单切换到“B”按^或V键进行选择, 第二、三个数码管显示00-FF, B00-BFF, 256个等级, 默认最大255 (显示屏显BFF) , 可选项: B00/B01...BFF (亮度等级, 依次递增)
- 屏显时间: 短按M键, 将菜单切换到“n”按^或V键进行选择, 第三个数码管显示1或2, 可选项: n-1 (数码管常亮) 、n-2 (30s内无操作将熄灭)

故障码: F-0: 过温保护

F-1: 过温警告

F-2: 短路/过流保护

APP操作

1. D5A、D5B可以与遵从标准RDM协议的地址编辑器配合使用。

建议使用LTECH的RDM编辑器（型号WiFi-RDM01），可通过APP设置D5A、D5B的屏显方式、单播/多播等参数，具体请参看WiFi-RDM01的使用说明书。



APP

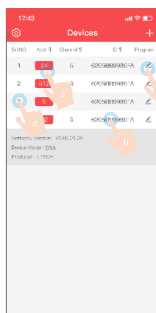


* WiFi-RDM01编辑器与恒压解码器不配套销售。

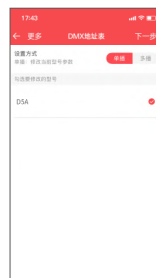
2. 通过APP选择工作模式。

DMX解码模式：可设置调光曲线、位深度、调光模式、调光范围等。

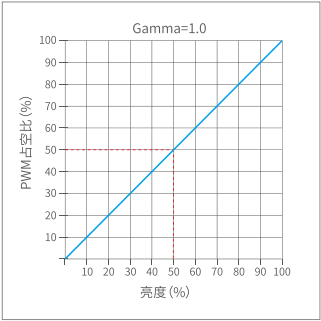
DMX主控模式：可设置灯光效果、速度、亮度等。



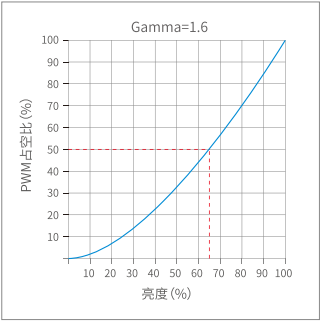
- a: 点击“地址”对应方框可编辑地址；
- b: 点击“标识符”出现产品详细信息；
- c: 点击编程按钮“”则进入编辑界面；
- d: 点击序号发出识别命令。



调光曲线



线性调光曲线



对数调光曲线

模式地址设置表

地址 通道	模式	C-1(调光)	C-2(色温)	C-3(RGB)	C-4(RGBW)	C-5(RGBCW)
通道1		001	001	001	001	001
通道2		001	002	002	002	002
通道3		001	001	003	003	003
通道4		001	002	003	004	004
通道5		001	002	003	004	005

*C-2色温模式下, CW输出为恒功率, 地址001为调节亮度加减, 地址002调节色温变化。

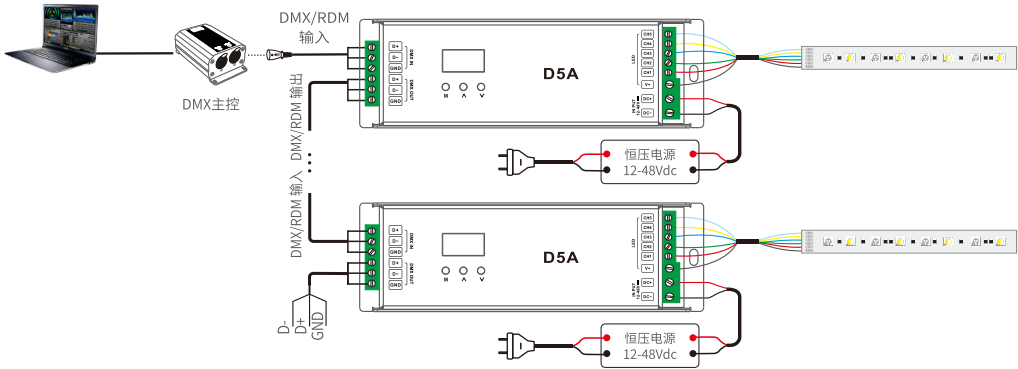
带载容量表

不同PWM频率、不同电压下, 每路最大带载电流和总功率不同。接线前, 请严格按照表格中的带载参数进行操作。

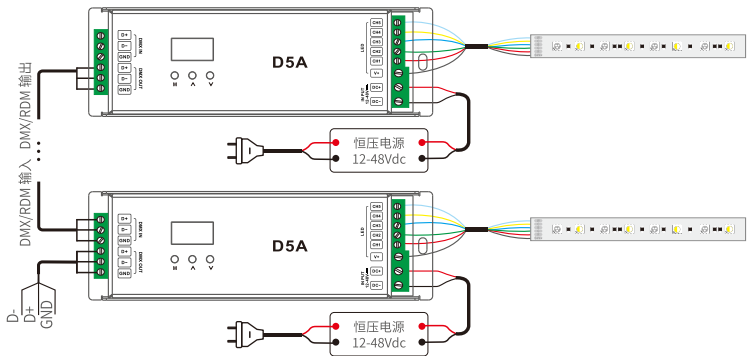
最大电流/功率 电压	频率	300Hz (F=0)	600Hz (F=1)	1.2kHz (F=2)	1.5kHz (F=3)	1.8kHz (F=4)	2.4kHz (F=5)
12V		5A×5CH/300W 6A×4CH/288W 8A×3CH/288W	5A×5CH/300W 6A×4CH/288W 8A×3CH/288W	5A×5CH/300W 6A×4CH/288W 8A×3CH/288W	5A×5CH/300W 6A×4CH/288W 8A×3CH/288W	5A×5CH/300W	5A×5CH/300W
24V		5A×5CH/600W 6A×4CH/576W 8A×3CH/576W	5A×5CH/600W 6A×4CH/576W 8A×3CH/576W	5A×5CH/600W 6A×4CH/576W 8A×3CH/576W	5A×5CH/600W 6A×4CH/576W 8A×3CH/576W	5A×5CH/600W	5A×5CH/600W
36V		5A×5CH/900W	5A×5CH/900W	5A×5CH/900W	5A×5CH/900W	5A×5CH/900W	4.5A×5CH/810W
48V		5A×5CH/1200W	5A×5CH/1200W	5A×5CH/1200W	5A×5CH/1200W	5A×5CH/1200W	4A×5CH/960W
最大电流/功率 电压	频率	3.6kHz (F=6)	7.2kHz (F=7)	10.8kHz (F=8)	14.4kHz (F=9)	18kHz (F=A)	/
12V		5A×5CH/300W	5A×5CH/300W	4.5A×5CH/270W	4A×5CH/240W	3A×5CH/180W	
24V		4A×5CH/480W	2.5A×5CH/360W	2.5A×5CH/300W	2A×5CH/240W	1.5A×5CH/180W	
36V		4A×5CH/720W	3A×5CH/540W	2A×5CH/360W	2A×5CH/360W	1A×5CH/180W	
48V		3A×5CH/720W	2A×5CH/480W	1.5A×5CH/360W	1.5A×5CH/360W	1A×5CH/240W	

D5A连接示意图

DMX解码模式连接

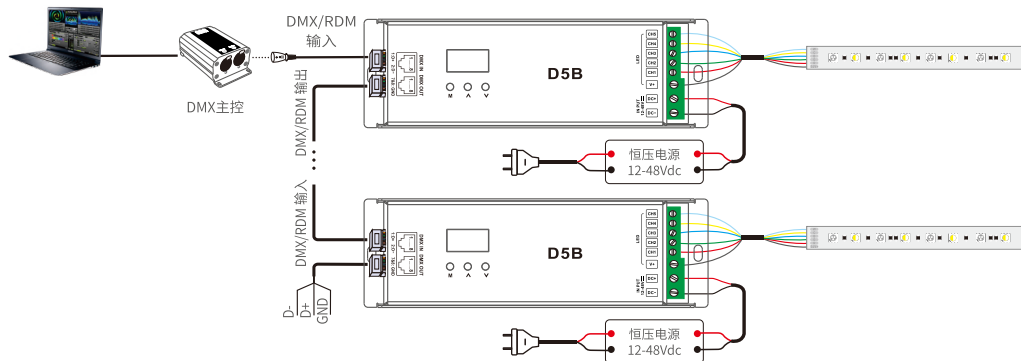


DMX主控模式连接

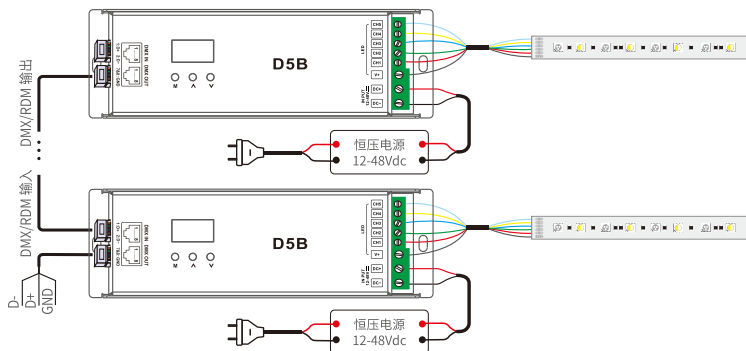


D5B连接示意图

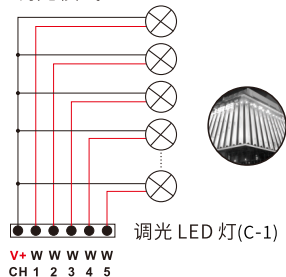
DMX解码模式连接



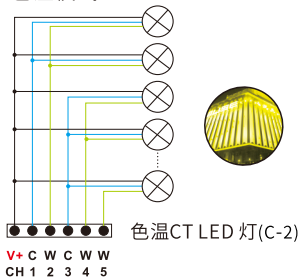
DMX主控模式连接



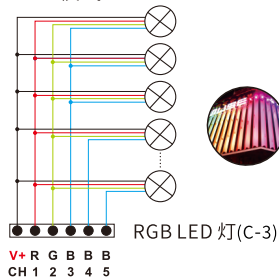
调光模式



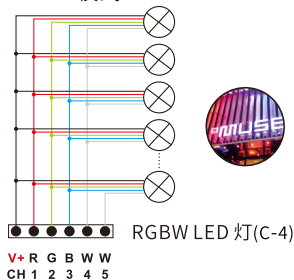
色温模式



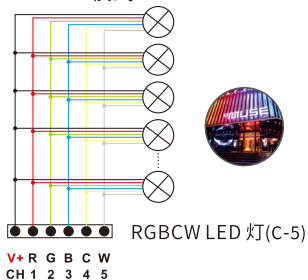
RGB模式



RGBW模式



RGBCW模式



- * 超过32台DMX解码器连接需加DMX信号放大器，信号放大不能连续超过5次。当超过32台DMX/RDM解码器连接时，如需修改其参数设置，可添加1台RDM信号放大器，或者将其参数设置完成后，再添加1~5台DMX信号放大器。
- * 当信号线较长或者线材质量等原因造成信号反冲效应影响使用，可以尝试在每路信号线末端连接0.25W 90-120Ω终端电阻去解决。

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- 良好的散热条件会延长产品的使用寿命，请把产品安装在通风良好的环境；
- 安装时，避免靠近大面积金属物体，或堆叠摆放，以免信号干扰影响使用；
- 避免安装在雷区、强磁场和高压区域；
- 请检查使用的工作电压是否符合产品的参数要求；
- 通电调试前，确保所有接线正确且牢固，以免短路损坏部件，触发事故；
- 如果发生故障，请勿私自维修；如果有疑问，请联系供应商。

- * 本说明书的内容如有变更，恕不另行通知。若内容与您使用的功能有所不同，则以实物为准。如有疑问，请与供应商联系。

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- 自出厂之日起保修服务期为5年。
- 在保修服务期内出现产品质量问题雷特将给予免费修理或更换服务。

非保修条例:

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- 过高电压、超负载、操作不当等人为造成的损坏;
- 产品外形严重损坏或变形;
- 自然灾害以及人力不可抗拒原因造成的损坏;
- 产品保修标签和产品唯一条形码损坏;
- 无雷特签订的合同或发票凭证。

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