LTECH

Constant Voltage 4 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 decoding 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 mode optional (1/2/3/4 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 protection and auto recovery.

FC CE RoHS warranty for 5 ISO9001:2008

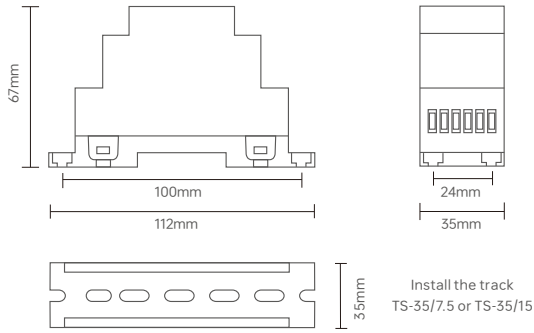
Product Parameters

Input Signal	DMX512, RDM
Input Voltage	5-24V ⎓
Output Type	Constant Voltage
Output Current	5A×3CH 4A×4CH Max.16A
Output Voltage	4×(5-24V⎓)
Output Power	192W@12V 384W@24V
Dimming Range	0-100%
Working Temp	-25℃~50℃

Installation method	Installation of guide rails or screws
Install the guide rail	TS-35/7.5 or TS-35/15
Safety regulations and Electromagnetic specifications	CE,EN 55015: 2019/A11: 2020 , EN 61547-1: 2021,FCC Part 15 Class B
Product size	L112×W35×H67(mm)
Packaging size	L114×W37×H70(mm)
Weight(G.W.)	135g ± 5g
protect	Short circuit, over temperature, over current protection, can be self restored

Product Size

Unit: mm



5-24Vdc
Power input terminal

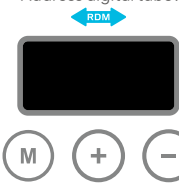
DMX/RDM
signal terminals

Address digital tube：

Running light

In the DMX decoder mode, when there is a DMX signal input, the running light flashes rapidly, and the flash frequency depends on the frame rate sent by the DMX controller; When there is no DMX signal, the running light flashes normally

LED lamp connection terminal



- Access Configuration： Long press the M button for more than 2s.
- Adjust Value： Short press ⊕or ⊖button
- Exit Menu: Long press M button for 2s again to save the setting, then exit the menu.
- Long press： M,⊕and⊖button simultaneously for 2s. When the screen displays RES,it has been reset to factory defaults.
- The display locks automatically after 15 seconds of inactivity.

Button Operations

DMX Decoder Mode

- Long press M and ⊕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 ⊕or ⊖button to set the DMX address. DMX address range: 001~512.
- **Bit Depth:** Short press M button to switch the menu to "r". Press ⊕or ⊖button to select bit depth and the third value on the screen willdisplay 1 or 2. Options: r-1 (8bit),r-2 (16bit).
- **PWM frequency:** Short press M button to switch the menu to "F". Press ⊕or ⊖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 ⊕or ⊖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:** Short press M button to switch the menu to "C". Press ⊕or ⊖button to select the dimming mode and the third value on the screen will .display 1, 2, 3 or 4. Options: C-1 (4 channel output occupies DMX address 1), C-2 (1 and 3 channel output occupy DMX address 1, 2 and 4 channel output occupy DMX address 2), C-3 (1 channel output occupies DMX address 1, 2 channel output occupies DMX address 2, 3 and 4 channel output occupyDMX address 3), C-4 (4 channel output occupies corresponding 4 DMX addresses, default option).
- **Screen timeout:** Short press M button to switch the menu to "n". Press ⊕or ⊖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 ⊖button simultaneously. When the screen displays "L-2", it enters the customized mode. Long press M button for 2s to enter the menu.
- **Lighting effects:** Short press M button to switch the menu to "E". Press ⊕or ⊖button to select the lighting effect and the third value on the screen will display 1~9 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 ⊕or ⊖button to select speed and the third value on the screen will display 1, ~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 ⊕or ⊖button to select the brightness level and the second and the third value on the screen will display 00-FF, B00-BFF, 256 levels, with a default maximum of 255 (the display screen shows BFF). Available options: B00/B01 · · · BFF (brightness levels,increasing sequentially).
- **Screen timeout:** Short press M button to switch the menu to "n". Press ⊕or ⊖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. D4-H can be used in conjunction with address editors that comply with the standard RDM protocol. It is recommended to use LTECH's RDM editor (model WiFi-RDM01), which can be used to set the screen display mode, unicast /multicast and other parameters of D4-H through the APP. Please refer to the user manual of WiFi-RDM01 for details.

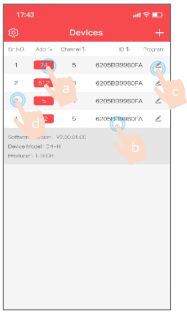
APP

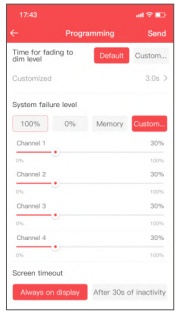
✻ The WiFi-RDM01 editor and the constant voltage decoder are sold separately.

2.Select the working mode through the APP

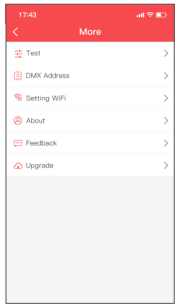
DMX Decoder Mode: Set the dimming curve, bit depth, dimming mode, dimming range, etc.

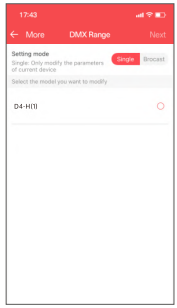
DMX Control Mode: Set lighting effects, speed, brightness, etc.



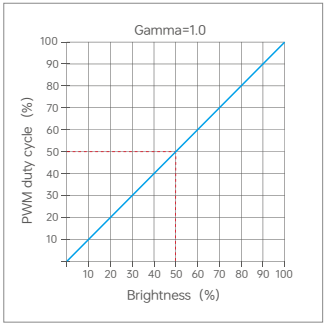


a: Click"Add", edit the address in corresponding box.
b: Click"ID", get more product details.
c: Click" ✎", enter edited interface.
d: Click"No.", issue the recognizing command.

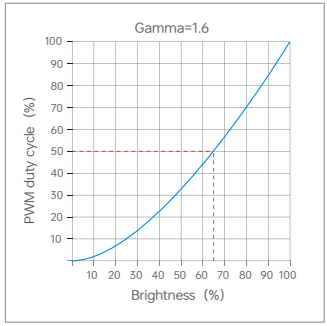




Dimming curve



Linear dimming curve



Logarithmic dimming curve

Address Setting Table

Address / Mode / Channel	C-1((Dimming)	C-2(CT/CT2)	C-3(RGB)	C-4(RGBW)
CH1	001	001	001	001
CH2	001	002	002	002
CH3	001	001	003	003
CH4	001	002	003	004

Load Parameters

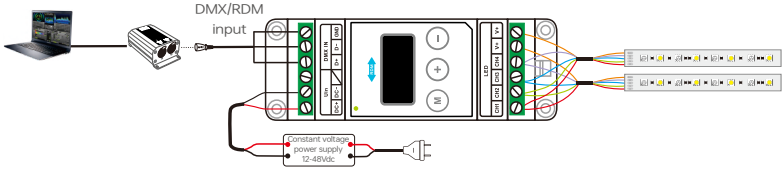
At different PWM frequencies and different voltages, the max. load current and the total power of each channel vary.
Before you do the wiring,please strictly follow the load parameters in the table below to operate.

Max. current/ power / Frequency / Voltage	300Hz (F=0)	600Hz (F=1)	1.2kHz (F=2)	1.5kHz (F=3)	1.8kHz (F=4)	2.4kHz (F=5)
5V	4A×4CH/80W	4A×4CH/80W	4A×4CH/80W	4A×4CH/80W	4A×4CH/80W	4A×4CH/80W
12V	4A×4CH/192W	4A×4CH/192W	4A×4CH/192W	4A×4CH/192W	4A×4CH/192W	4A×4CH/192W
24V	4A×4CH/384W	4A×4CH/384W	4A×4CH/384W	4A×4CH/384W	4A×4CH/384W	4A×4CH/384W

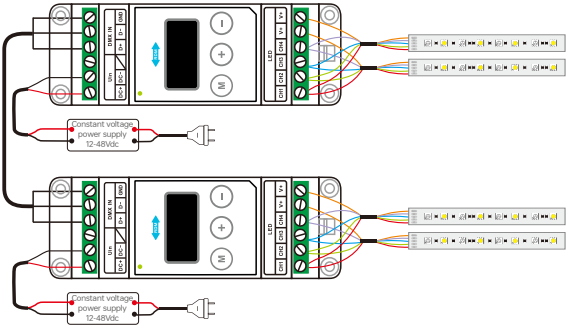
Max. current/ power / Frequency / Voltage	3.6kHz (F=6)	7.2kHz (F=7)	10.8kHz (F=8)	14.4kHz (F=9)	18kHz (F=A)	
5V	4A×4CH/80W	4A×4CH/80W	4A×4CH/80W	4A×4CH/80W	4A×4CH/80W	/
12V	4A×4CH/192W	3.5A×4CH/168W	3A×4CH/144W	2.5A×4CH/120W	2A×4CH/96W	
24V	3.5A×4CH/336W	3A×4CH/288W	3A×4CH/288W	2A×4CH/192W	1.5A×4CH/144W	

D4-H Wiring Diagram

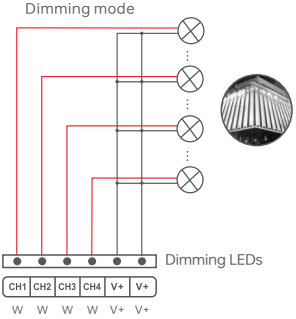
DMX Decoder Mode



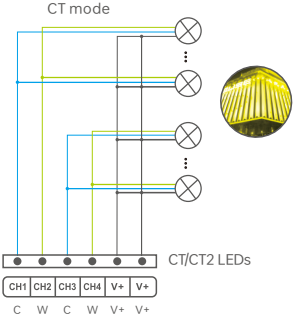
DMX Control Mode

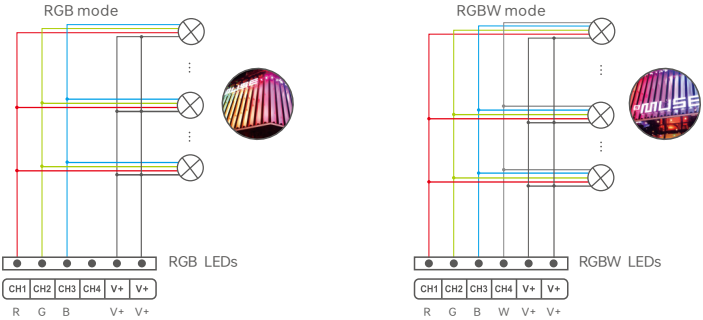


Dimming mode



CT 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.
- LTECH products are and 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